# Spectrophotometric investigations of hot subdwarf stars in the Plato field with Gaia DR3

**Bachelorarbeit aus der Physik**

Vorgelegt von
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**Abstract**

Hot subdwarf stars of spectral types O and B are located close to the hot end of the horizontal branch and represent late stages of stellar evolution. The majority of these objects are core helium burning stars as, with radii of about 0.2 $R_\odot$, they lack the extensive hydrogen envelopes found at cooler horizontal branch stars. Most of them are thought to result from binary evolution, as Roche lobe overflow, but the driving mechanisms behind the formation and the evolutionary connection to other stellar classes are not fully understood. This thesis aims to provide an overview of the properties of hot subdwarf stars in the *Plato* field, a roughly 50 ° x 50 ° field located in the Southern Hemisphere, as a significant sample for the upcoming *Plato*-mission and beyond as an important step towards understanding the complex formation and evolution.

The *Gaia* space mission has provided photometric and astrometric measurements for more than one billion stars, which is a great enrichment for research of hot subdwarf stars and has changed Galactic astrophysics in general. In combination with other spectroscopic and photometric surveys, this huge data set enables the investigation of statistically significant samples of the comparatively rare hot subdwarf stars. On the basis of these datasets, analyses of the *Plato* field's stars were conducted. Objects to be studied were selected first via numerous catalogues and various stellar properties have been constrained to prepare the sample. Investigations by extensive photometric data from various sky surveys have been carried out to determine atmospheric properties. The analysis of spectral energy distributions (SEDs), covered from the UV to the infra-red, combined with *Gaia* parallaxes enabled the determination of the stellar parameters radius and luminosity and identified F/G/K-type companions to hot subdwarfs.

In conclusion, this thesis provides detailed spectrophotometric analyses of hot subdwarf stars in the *Plato* field, including atmospheric and fundamental stellar parameters, forming a basis that can be combined with spectral analysis and binary evolution models to shed light on the diverse formation mechanisms of hot subdwarf stars and their evolution. Thus the investigations made also contribute to the broader context of binary evolution, in particular in the stellar population of the *Plato* field.

# Contents

# Chapter 1

# Introduction

*Twinkle, twinkle, little star. How I wonder what you are!* - with these words begins the well-known and romantic children's poem by Jane Taylor, which gives when dealing with stars in a scientific context, new meaning to the constant curiosity and endeavour to understand the wonders of the universe. Such matters have always preoccupied mankind and it is precisely this fascination and advancing technology that has led to the decoding of these questions. Thanks to extensive data sets from various observation missions, such as the *Gaia* space observatory, that allow us to look deeper and deeper into the universe and the continuous development of theoretical models, we have gained a wealth of knowledge about the nature of the stars.
So is the known information about the evolution of low-mass single stars from the start of hydrogen fusion to their end as inert white dwarf remnants predicted by models and well developed. However, the evolution of close binary stars shows a lack of understanding as phases of interaction and mass transfer characterise it. This applies in particular to stars in the later stages of their evolution, where one of the components might have expanded rapidly, leading to changes in the evolutionary processes.
It is assumed that some classes of stars can only be understood by referring to the evolution of close binary stars and hot subdwarf stars are an example of such a class. The majority of hot subdwarfs are smaller and less massive compared to the sun but have surface temperatures of more than 20000 K, as only the hottest stars have. This combination differs from standard stellar evolution models, therefore the formation of hot subdwarfs usually involves binary star interactions with mass loss of the primary hot subdwarf star, and Pelisoli et al. (2020) even proposed that binary interaction is always required. Several suggestions have been made to explain their formation and unique properties, but so far it remains to be seen which theory is correct or whether they all represent a piece of the puzzle.

With this work, observational constraints on the formation of hot subdwarf stars are provided, by studying the population of the *Plato* field, a roughly 50° x 50° large field located in the Southern Hemisphere which has been recently defined for the upcoming mission, as a significant sample of hot subdwarf stars. The findings on the atmospheric and stellar properties from the spectrophotometric analysis should help to test and further develop existing evolutionary models.

Before the methods of investigation are discussed, the structure of this thesis is presented. In Chapter 2 both, the properties and various formation scenarios of hot subdwarf stars are discussed. In the following Chapter 3, the planned *Plato* mission is first discussed, and then the search for hot subdwarf stars using the third data release of the *Gaia* mission (*Gaia* DR3) as well as the criteria and methods using various catalogues for the selection of candidates in the *Plato* field as a significant sample to isolate a representative group of hot subdwarfs are presented.
As the evaluation is based on the spectrophotometric analysis, the SED fitting procedure using data from various photometric sky surveys and the relevance for the data investigations are listed in Chapter 4. Furthermore, the methodology for the SED analysis of the hot subdwarfs

in the *Plato* field is explained. This is followed by Chapter 5, in which the photometric results of individual hot subdwarfs are explained. In favour, a SED fit for a single star and a binary system is considered for each of the spectral classes sdB, sdOB, and sdO, and examples of BHB stars and WDs are discussed. Chapter 6 presents the SED results under consideration of various atmospheric parameters, such as the effective Temperature $T_{\mathrm{eff}}$ or the reddening $E(44 - 55)$. The results are discussed for the spectroscopic sub-classes to examine differences in the formation process and the overall observed distributions are compared to stellar evolutionary tracks.
Afterwards, Chapter 7 comprises the study of the stellar parameters radius $R$ and luminosity $L$, based on a combination of $T_{\mathrm{eff}}$ and surface gravity log $g$ from the Kiel diagram, parallax measurements from *Gaia*, and the analysis of photometric measurements.
The conclusions derived from the analyses presented in this thesis and the most important findings are summarised in Chapter 8, where lastly also the potential for further studies on hot subdwarf populations is highlighted.

# Chapter 2

# Hot subdwarf stars

Hot subdwarf stars of spectral types O and B (sdO/B) have high surface temperatures of more than 20000 K emitting blue and white light. In the Hertzsprung-Russell diagram (HRD; see Figure 2.1), which depicts the luminosity in solar units over the surface temperature, they are located between the main sequence (MS) and the white dwarf (WD) sequence at the blue end of the horizontal branch, the so-called extreme horizontal branch (EHB). These are cores of red giants that have been able to start helium burning in their core but have lost a large part of their envelope, which is not to be confused with classical subdwarf stars of spectral types F to K on the left of the main sequence (Heber 2016).

The following sections provide a brief introduction to stellar evolution and subdwarf stars, which is inspired by the review of Heber (2016). In Section 2.1 the canonical single low-mass is discussed, followed by the historical context of the hot subdwarf research as well as the classification in Section 2.2. The observed atmospheric properties and characteristics of the hot subdwarf population are described in Section 2.3. Formation scenarios of hot subdwarf stars are introduced in the context of single-star evolution through a "He-flash"in Section 2.4.1 and via binary star evolution in Section 2.4.2.

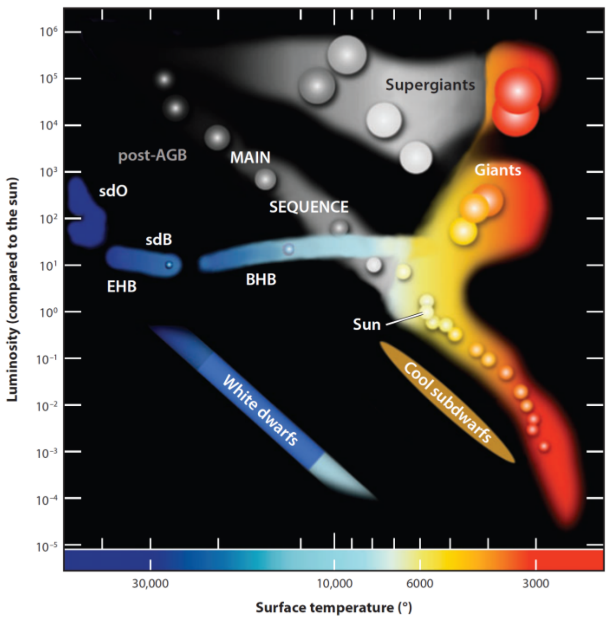



**Figure 2.1.** The Hertzsprung-Russell diagram, which plots the luminosity over the stellar surface temperature, is shown schematically. The position of hot subdwarf stars of spectral classes O and B (sdB and sdO) and the position of the extreme horizontal branch (EHB), which can be located to the left below the main sequence and above the white dwarf sequence, are highlighted. Post-AGB stars and cold subdwarfs are also marked for comparison (Heber 2009).

## 2.1 Canonical stellar evolution

The standard evolution of single low-mass stars is considered first as it emphasizes the particular position of hot subdwarf stars. This roughly contains five evolutionary stages from the main sequence to white dwarfs.

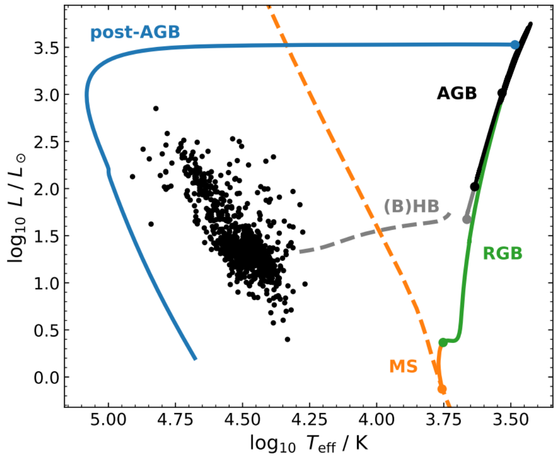



**Figure 2.2.** The evolution of a Sun-like star in the Hertzsprung-Russell diagram (HRD) is shown. Evolutionary stages are labelled as green for the RGB, black for AGB, and blue for post-AGB. The dashed orange and grey lines, respectively, depict the solar-metallicity zero-age main sequence and the horizontal branch for low metallicity. The black dots represent hot subdwarf stars, whereby these are not covered by the standard evolution model (Dorsch 2023).

**Main sequence.** The majority of a star's life cycle is spent on the main sequence (MS) in the Hertzsprung-Russell diagram (see Figure 2.2), showing the stellar effective temperature $T_{\rm eff}$ against the luminosity $L$. In the process, hydrogen is fused into helium in their core, with stellar masses in the Galactic disk ranging from 0.07 $M_\odot$ (Saumon and Marley 2008) to about 150 $M_\odot$ (Figer 2005). The main sequence runs as a diagonal through the Hertzsprung-Russell diagram, whereby the stars in this phase are in hydrostatic equilibrium. The lifetimes of stars on the main sequence are strongly variable with their mass, for example, the sun will spend about 8 Gyr on the MS while less massive stars do so even longer (Dorsch 2023).

**First giant branch.** This stage is initiated when hydrogen is exhausted in the core and fusion continues in a shell closely surrounding the core. The helium core starts to contract leading to the expansion of the envelope at a nearly constant luminosity. As a result, the envelope of the star becomes convective and the surface temperature decreases. This stage ends when the star begins to ascend the red giant branch (RGB) by drastically expanding. For low-mass stars, this is due to the electron-degenerate nature of the helium core contracting under the increasing mass of the star by hydrogen fusion in the shell. This results in an increased luminosity, as the pressure, density, and temperature in the shell increase, leading to the expansion of the stellar envelope radiating that nuclear luminosity away. For stars with less than 2 $M_\odot$, the helium core is unable to ignite helium fusion before contracting to electron-degenerate densities and continue to ascend the RGB until the core has reached a mass of about 0.5 $M_\odot$. This results in a central temperature of the order of $10^8$ K, leading to the ignition of helium fusion (Härm and Schwarzschild 1961), and as the pressure in electron degenerate cores is temperature-independent, the core cannot expand immediately and heats up by run-away fusion - the helium-flash. This ends when the thermal energy reaches the Fermi level and the degeneracy of the electron gas is cancelled (Dorsch 2023).

**Horizontal branch.** After the helium-flash, a new equilibrium with a helium-burning core and a hydrogen-burning shell is reached causing the star to contract towards the horizontal branch (HB) in the Hertzsprung-Russel diagram. The stellar evolution on the HB is determined by the mass and radius of the hydrogen envelope, for example, the sun would reach the HB at about

ten solar radii, and a surface temperature of about 4800 K (Hidalgo et al. 2018).
Blue horizontal branch (BHB) stars are HB stars with thin hydrogen envelopes that can reach $T_{\text{eff}}$ of up to 20000 K. BHB stars are often observed in globular clusters and are thought to form in old stellar populations because the thin envelopes require low-mass progenitors (Tailo et al. 2021). Also, the low metal abundances found in old stellar populations cause less opaque and more compact envelopes. Hence, this contributes to the higher effective temperatures on the HB. These stars burn up most of their envelope as they ascend the RGB until their core reaches the mass required for the helium flash (Dorsch 2023).

**Second giant branch.** Once helium is exhausted in the core, most stars proceed to fuse helium and hydrogen in two shells above the core ascending the asymptotic giant branch (AGB). The star evolves again to lower temperatures and higher luminosities, similar to the evolution on the RGB. As low-mass stars can't reach temperatures high enough for carbon fusion, expansion continues until the envelope is ejected leaving a very hot core - a young white dwarf with a planetary nebula formed from the ionised ejected envelope. Afterwards, it contracts and cools down in the white dwarf sequence (Dorsch 2023).

The standard evolution scenario fails to explain the formation of BHB stars and fails for hot subdwarf stars. Hot subdwarfs are located at the extreme blue end of the horizontal branch (EHB) and most of them have core masses that are close to the mass required for the He-flash of about 0.5 $M_{\odot}$ (Iben 1968). They can reach temperatures of up to about 35000 K, only consisting of the helium core, and with higher core masses even hotter temperatures are possible forming the helium main sequence (Paczyński 1971). Many subdwarf stars of spectral type O (sdO) are located close to this sequence and thus exhibit a helium-rich surface. EHB stars are also clearly separated from the (B)HB, which remains unexplained and means that they cannot be horizontal branch stars in the canonical sense (Dorsch 2023).

## 2.2 History of discovery and classification of hot subdwarf stars

Originally, some of the brightest hot subdwarf stars were classified in the spectroscopic Henry Draper catalogue (HD; Cannon and Pickering 1918), but back then they were not recognised as distinct from other hot, O/B/A-type, stars. Most of those cool objects of late spectral types were identified as metal-poor main sequence stars from old Galactic populations. Humason and Zwicky (1947) identified hot subdwarf stars as subluminous compared to hot main sequence stars in a photometric survey of the Galactic North Pole and the Hyades region in the 1950s. Since then, multiple projects like the Palomar-Green (Green 1947), the Hamburg-ESO (Wisotzki et al. 1991), and the Edinburgh-Cape surveys (Kilkenny et al. 1991) searched for hot subdwarf stars. The latest catalogue of candidate hot subdwarf stars contains about 60000 field stars and was constructed using photometry and astrometric measurements from the *Gaia* space observatory (Culpan et al. 2022).

The hot subdwarf population represents a heterogeneous group consisting of subclasses that cover a wide range of parameters, such as atmospheric properties like the effective temperature $T_{\text{eff}}$ discussed in Section 2.3, and can differ in their origin. The group of hot subdwarfs has so far been divided into sdB and sdO stars. However, a finer subdivision of the classes concerning different properties is useful, whereby this is carried out based on the spectra of the stars. Spectra originate from the atmospheric layers, whereby for sdB/O stars mainly absorption lines of hydrogen, especially the Balmer series, occur. In addition, absorption lines of neutral (HeI) and ionised helium (HeII) can be observed and to enable a classification of hot subdwarf stars that takes these characteristics into account, the following scheme of (Heber 2009) is presented.

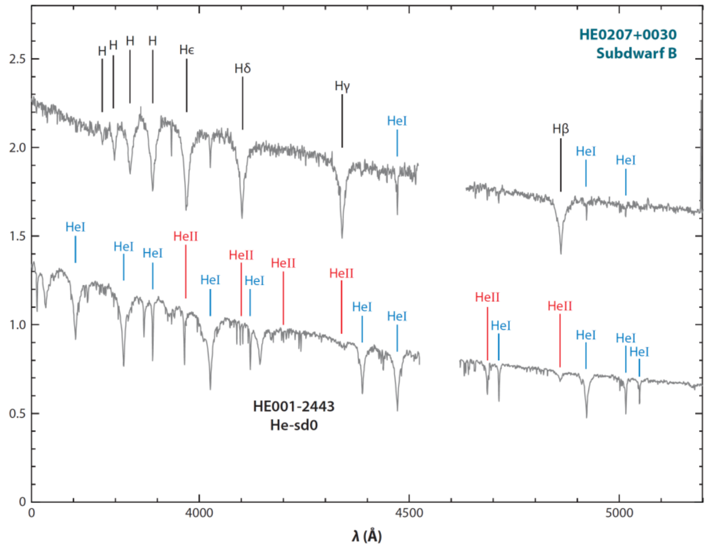



**Figure 2.3.** Intensity curves of **top** a sdB and **bottom** a He-sdO star from the ESO Supernova Ia Progenitor Survey plotted against the wavelength in Å. The spectral lines of hydrogen (H), neutral helium (HeI), and ionised helium (HeII) are highlighted (Heber 2009).

**sdB.** sdB stars show a strong Balmer series of hydrogen with weakly pronounced lines of neutral helium (HeI). Ionised helium lines are absent in the spectra of helium-poor sdB stars (see Figure 2.3).

**sdOB.** Broad hydrogen lines with faint HeI and HeII lines are a characteristic of sdOB stars.

**sdO.** sdO stars are characterised by a strong expression of the hydrogen and HeII lines, whereas HeI lines are hardly or not at all pronounced.

**He-sdB.** He-sdB stars have strong HeI lines and a dominant Balmer series. This class is often not mentioned explicitly as these stars are rare.

**He-sdO.** On the other hand, He-sdO stars have little or no pronounced Balmer series and the spectrum is dominated by HeI and HeII lines (see Figure 2.3).

The completely different spectra of the two stars in Figure 2.3 once again emphasise the diversity of hot subdwarf stars. An even more detailed classification scheme was introduced by (Drilling et al. 2013).

## 2.3 Atmospheric properties and characteristics of the hot subdwarf star population

This section provides an overview of the diverse properties and characteristics of hot subdwarfs. The expectations of these parameters are also summarised to be able to interpret the values determined later. With the help of spectroscopic observations, surface properties such as the effective temperature $T_{\rm eff}$ and the surface gravity log $g$ are determined by constructing models of the stellar atmosphere. Large spectroscopic surveys such as SDSS (Kepler et al. 2019) and LAMOST (Luo et al. 2021) have increased the number of spectroscopically identified hot subdwarf stars to more than 6500 (Geier 2020; Culpan et al. 2022) in the Galactic field population.

An important characteristic of hot subdwarf stars is the high surface gravity

$$g = GM/R^2, \tag{2.1}$$

with $G$ the gravitational constant, $M$ the stellar mass, and $R$ the stellar radius. For subdwarfs, the values usually are $4.5 < \log g < 6.5$, which is, for example, lower than the typical range of the WD sequence ($7 < \log g < 9$). The Kiel diagram, which shows the surface gravity $\log g$ in cgs-units (g cm$^{-2}$) over the effective Temperature $T_{\mathrm{eff}}$, for the spectroscopic hot subdwarf sample of Culpan et al. (2022) is depicted in Figure 2.4 (e.g. Dorsch 2023). Most hot subdwarf stars are located at the EHB. The evolutionary tendency is particularly visible for the cooler sdB stars with temperatures between 22000 K and 35000 K. With an increasing effective temperature the surface gravity increases and at $T_{\mathrm{eff}} > 50000$ K a decrease of the population is noticeable corresponding to helium cores more massive than about 1 $M_{\odot}$.

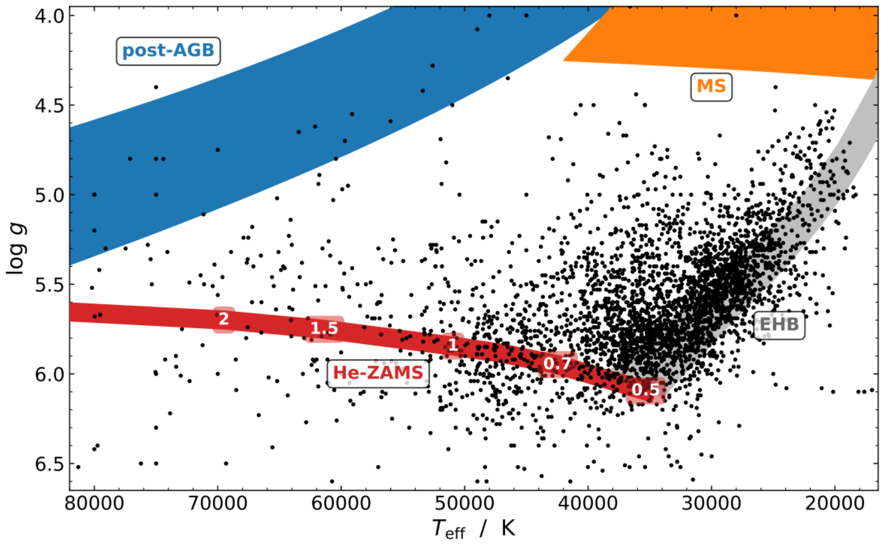



**Figure 2.4.** Depicted is the Kiel diagram of spectroscopically classified hot subdwarf stars collected by Culpan et al. (2022). The blue-shaded region are post-AGB tracks from Miller Bertolami (2016), for final masses between 0.53 $M_{\odot}$ and 0.83 $M_{\odot}$. The solar-metallicity main sequence of Choi et al. (2016) in orange and the He-ZAMS of Paczyński (1971) with masses in $M_{\odot}$ in red are shown. The grey-shaded region marks the HB from Dorman et al. (1993) for a core mass of 0.49 $M_{\odot}$ and 1/30th of the solar metallicity (Dorsch 2023).

## 2.4 Formation and evolution

Now that the uniqueness of hot subdwarf stars has been emphasized, their formation is considered. The models to be tested by analysing the properties of hot subdwarfs are presented in this section.

### 2.4.1 Single star evolution - Hot flashers

The hot flasher scenario may explain hot subdwarf single stars and was proposed as most helium-rich sdO stars (Napiwotzki et al. 2008) and a significant fraction of helium-poor sdO/B stars (Napiwotzki et al. 2004) are single. This evolutionary channel for the formation of isolated hot subdwarfs is explained in the following as it is the only scenario without the need for a binary system.

A low-mass giant star either leaves the RGB once the core ignites helium fusion or leaves the RGB prior if the hydrogen shell is exhausted before the helium fusion is ignited. If the latter occurs and at that point the temperature of the helium core is nearly high enough to ignite fusion a "late hot flash", meaning a delayed He-flash while the star is contracting, may occur (D'Cruz et al. 1996). Untypical thin hydrogen envelopes are required for low-mass stars to reach the tip of the RGB within the age of the Galaxy what can be achieved, for example, through strong stellar winds (Castellani and Castellani 1993), or initially high helium abundances (Gratton et al. 2010).

“Hot-Flasher“models often include increased mass-loss at the tip of the RGB, resulting in increasingly hot and helium-rich HB stars. The result of this “Hot-Flasher“depends on the timing of the helium ignition. Two possible scenarios for the evolution from the main sequence to stable helium fusion by a late hot flash, leading to the formation of hot subdwarf stars, are:

**Shallow mixing.** Since for a late hot helium flash the hydrogen-burning shell is very thin and does not represent a boundary for the convection zone, the convection zone caused by the helium flash mixes the hydrogen envelope with the outer layers of the core. This **shallow-mixing** leads to a helium-enriched surface, like these of the so-called “intermediate helium sdOB stars“(Dorsch 2023).

**Deep mixing.** In the case of deep mixing the hydrogen envelope is completely mixed into the core, where it is burned in the CNO-cycle. This results in an extremely hydrogen-poor surface observed in many so-called “extreme helium sdO stars“(Hirsch and Heber 2009).

However, the loss of the hydrogen shell represents a problem in this model and has not yet been understood. Another possibility for the formation of single stars is the white dwarf merger scenario, which is explained in the next section among others.

### 2.4.2 Binary evolution

A high fraction of sdB stars, about 30 % to 50 %, are found in a binary system with M-dwarf, brown-dwarf, or white dwarf companions (Maxted et al. 2001; Copperwheat et al. 2011; Schaffenroth et al. 2022). These systems have short orbital periods of about one hour up to a day for systems with M-dwarf companions or several days with white dwarf companions (Kupfer et al. 2015; Schaffenroth et al. 2022). Hot subdwarf binaries can be identified using time-series spectroscopy due to their strong variable radial velocities, and when close enough by light variations, for example, from eclipses. Binary interaction is an important factor for the formation of hot subdwarf stars, which was proposed early on by Baschek and Norris (1975) and Mengel et al. (1976). Hydrogen envelopes of RGB-type stars can be stripped using binary interaction which is roughly divided into three scenarios: The common envelope scenario (Paczynski 1976), the Roche lobe overflow scenario, and the white dwarf merger scenario (Webbink 1984). The former also produce binary star systems, while the white dwarf merger scenario leads to a single hot subdwarf star.

**Common envelope evolution.** The common envelope evolution (CE) scenario produces the closest binary systems (Paczynski 1976), whereby an initial binary of two main sequence stars with different masses can be considered. The more massive star then expands to giant dimensions filling its Roche lobe. For this, the system has to be close enough. Then the expansion reaches the so-called Roche limit, which leads to a mass transfer from the more massive star to its lighter companion. In the case of a great stellar mass difference (Podsiadlowski et al. 2008), the mass transfer is dynamically unstable as the companion is not able to fully accrete the inflowing matter resulting in the formation of a common envelope. This engulfs the companion and the remaining helium core of the stripped star. Eventually, the envelope is ejected as it becomes unbound to the binary system. The distance between the stars decreases and the orbital period shortens because of drag forces within the envelope. The process either leads to a hot subdwarf star for systems at the very tip of the RGB when the stripped star ignites helium fusion or, when the envelope is ejected prior, it results in a helium-core white dwarf with a degenerate and inert helium core and a thin hydrogen envelope (Iben and Tutukov 1986; Driebe et al. 1998). A schematic illustration of the scenario can be seen in Figure 2.5, b. The companion star is on a

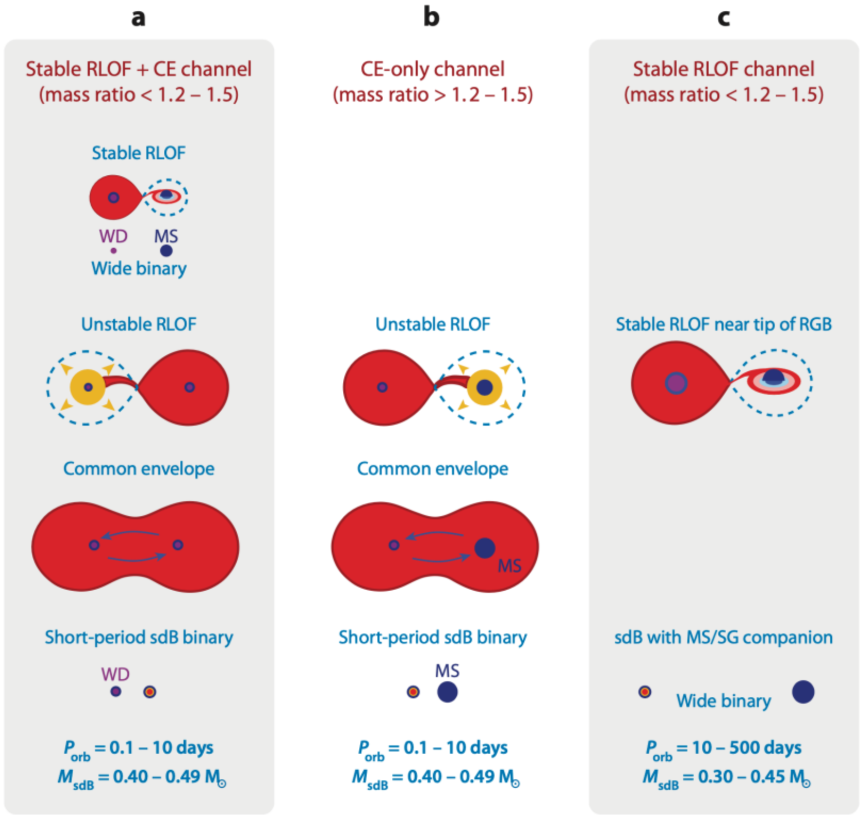



**Figure 2.5.** The binary evolution scenarios leading to the formation of hot subdwarf stars are shown. The respective evolutionary paths are shown from top to bottom. **a** At low mass ratios, two phases of mass transfer occur. The first represents a stable Roche lobe overflow (RLOF), while the second results in the ejection of a common envelope (CE). The resulting system consists of an sdB and a white dwarf with short orbital periods. **b** For large mass ratios, a CE phase occurs directly. As a result, an sdB and a main sequence star are produced. **c** For low mass ratios, an sdB with a main sequence companion in a wide binary system can also be produced in a first stable RLOF. For post-RLOF models, orbital periods $P_{\mathrm{orb}}$ exceeding 500 days have been observed (Vos et al. 2018). (Podsiadlowski et al. 2008; adapted: Heber 2016).

short-period orbit of about 2 h to 15 h (predicted: Iben and Tutukov 1984; observed, e.g.: Kupfer et al. 2015; Schaffenroth et al. 2022), and remains on the main sequence. Main sequence companions of hot subdwarf binaries show a low mass, as late K- and M-type stars or brown dwarfs (Dorsch 2023).

**Stable Roche lobe overflow.** For the case that the binary consists of two stars of similar initial mass, the mass may transfer through stable Roche lobe overflow (RLOF; see Figure 2.5, c) resulting in a long-period binary system of the order of 500 to 1500 days (Barlow et al. 2012; Vos et al. 2018). The mass transfer is conducted at a rate that allows the lighter companion to fully accrete the transferred mass. The hot subdwarf or He-WD is formed by stripping the initially more massive star, while the companion remains a main sequence star. This can be seen as a double-humped flux distribution with the sdB dominating the blue part and the F/G/K-type companion the red part. Once the secondary star ascends the RGB, when the hot subdwarf already has evolved to become a low-mass WD, the system might undergo a second common envelope episode as the WD is unable to fully accrete the mass (see Figure 2.5, a). This process results in a large mass ratio and unstable mass transfer, which forms a helium WD or a hot subdwarf star in a close binary with a WD companion (Dorsch 2023).

These scenarios describe the formation of sdB stars. Which of the evolutionary channels a binary star system undergoes depends on the mass ratio of the two stars (Podsiadlowski et al. 2008), with a high mass ratio leading to an unstable RLOF and thus to the CE scenario, and low mass ratios leading to the stable RLOF scenario (Heber 2016).

**White dwarf mergers.** With the help of a stellar merger involving at least one helium-core white dwarf, a single hot subdwarf star can be produced (Webbink 1984). A double white dwarf binary system can be formed, for example, through the second CE scenario in Figure 2.5, a. The lower-mass WD of the close binary He-WD systems is the larger component, which can be inferred from the electron-degenerate nature, and loses its mass under donation as it expands. The emission of gravitational waves causes the distance between these two stars to decrease until the larger of the two stars finally fills its Roche lobe (Zhang and Jeffery 2012). But at a critical mass ratio, the mass transfer is self-reinforcing, which means that the radius of the donor increases faster than the widening of the orbit due to angular momentum transfer, and the donor gets disrupted tidally within seconds. There are different types of mergers producing hot subdwarfs and two examples are depicted:

- **He-WD+He-WD.** In the case of double He-WD merger scenarios, the remaining star ends with a helium-rich surface and three possible evolutions can be considered (Zhang and Jeffery 2012).
  - **Slow-Merger:** With slow accretion, the disrupted donor may form a cold disk after its entire mass was transferred to the smaller WD within a few minutes. The material remains cold and can finally be accreted leading to a He-sdO with surface abundances similar to the bulk composition of a He-WD (see Figure 2.6, left panel).
  - **Fast-Merger:** Fast accretion ignites helium fusion at high temperatures in a shell around the core producing various metals that are brought to the star's surface by the convective envelope. The entire mass of the lower-mass WD falls onto the surface of the companion forming a hot corona as the matter was heated up. The product is an extreme He-sdO star (see Figure 2.6, middle panel).
  - **Composite-Merger:** With slow and fast accretion, the disrupted mass partly is accreted quickly and forms a corona and partly forms a cold disk accreted by the corona resulting in carbon-enhanced extreme He-sdO stars (see Figure 2.6, right panel).
- **He-WD+MS.** Mergers between a He-WD and a low-mass MS star may produce a single helium-poor sdB star, as the surface of the merger star can become helium-poor by helium fusion and eventually diffusion (Zhang et al. 2017).

All formation scenarios based on the interaction in a binary star system mentioned here likely contribute to the hot subdwarf population, although also unknown scenarios might exist. Understanding the underlying processes can only be achieved by comparing theoretical predictions with observations, thus with statistical properties of the population. This raises the question of which of the evolutionary models contribute to the hot subdwarf population and to what extent. Of particular interest here is how many stars occur in binary systems with a main sequence star, a white dwarf, or even as a single star. In the course of this work, these properties will therefore be determined for a sample of hot subdwarf stars presented in the following chapter.

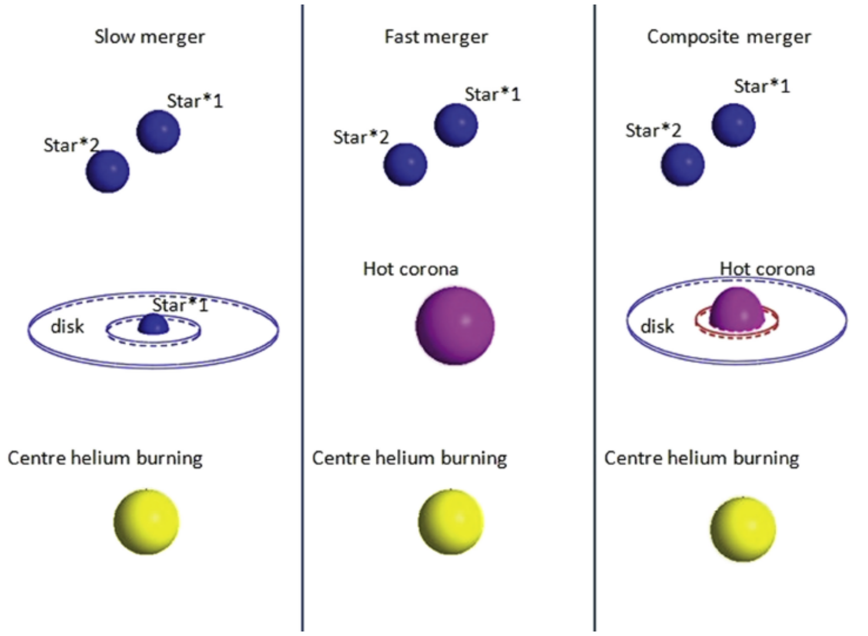



**Figure 2.6.** The three possible scenarios in which two white dwarfs merge, **left** slow-merger, **middle** fast-merger, and **right** composite-merger, are shown. These can explain the formation of hot subdwarf stars (Heber 2016).

# Chapter 3

# Sample selection of the *Plato* field with *Gaia*'s parallaxes and colours

It is impossible to realise a complete study of all the stars of the Milky Way. A systematic method is needed to collect representative data for the entire galaxy in much shorter periods. The aim is to construct a complete sample of hot blue stars to provide a basis for population studies.

## 3.1 The *Plato* mission - going beyond the 500 pc limit

PLAnetary Transits and Oscillations of stars (PLATO) is an ESA M-class satellite planned for launch by the end of 2026 and aims a wide-field search of transiting planets around bright and nearby stars. Particularly, the discovery of habitable rocky planets, preferably orbiting within the habitable zone, hosted by solar-like stars is desired. Key information needed to determine the habitability as planetary radii and mean densities will be provided.
It is designed to allow the detection of planets via photometric transits, but also timing variations of transits and via the reflected stellar light on the planet, which cause together with the orbital planet movement periodic variations in the light curves, will be used. This is a Long-duration Observation Phase (LOP) field selection with two LOP fields chosen, one for each hemisphere (LOPS1 and LOPN1), with the minimum duration of a LOP field of one year.

NASA missions as Kepler showed, that space-based, wide-field photometry is extremely effective in detecting transiting planets. For this, bright, solar-type main-sequence stars are selected to allow a proper follow-up by ground-based facilities and the precise determination of stellar parameters from the asteroseismological analysis of the light curves.
The design is based on 24 identical 20cm-class telescopes, whereby an overlapping design with a variable amount of 24, 18, 12, and six telescopes is used, corresponding to four, three, two, and one group(s) of six co-pointing telescopes each, respectively, which leads to stars within the inner region of the *Plato* field being monitored with a much higher precision.

The field with a roundish square footprint of about 49$^\circ$ x 49$^\circ$ overall, will simultaneously image about 5% of the whole sky photometric precision. This might be completed by shorter pointings during the "Step and stare"Observation Phase (SOP fields), which can expand the total areas surveyed to 40 % of the sky. The center of the southern LOP field, which is termed as *Plato* field within this work, is located at Galactic coordinates l $\simeq$ 250$^\circ$.3, b $\simeq$ -24$^\circ$.6, where the highest photometric precision is achieved in the -35$^\circ$ $\leqq$ b $\leqq$ -15$^\circ$ range (see Figure 3.1).
It should be added that half of the Large Magellanic Cloud (LMC; yellow circle in Figure 3.1) will be observed in LOPS1 by six PLATO cameras, although the reason for this was not explicitly mentioned. The consideration of the LMC for the sample selection is discussed in Sections 3.3 and 3.4 (Nascimbeni et al. 2021).

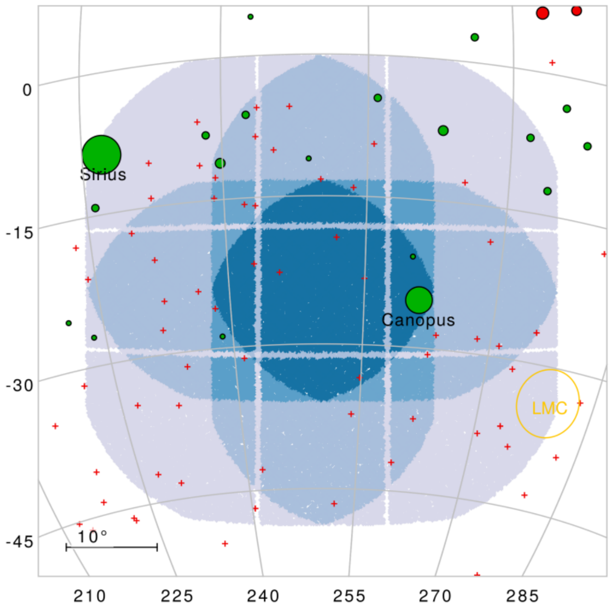



**Figure 3.1.** Location of the provisional South PLATO LOP Field (LOPS1) in a Galactic projection. A colour code in blue shades according to the number of co-pointing "normal"cameras, from six (light blue) to 24 (dark blue) is used. Known exoplanets are plotted with red crosses and the position of the Large Magellanic cloud is marked with a yellow ellipse. Green circles show particularly bright stars (Nascimbeni et al. 2021).

A bright magnitude-limited selection is used, therefore the sample is dominated by stars, on average, larger than the Sun with a median of 1.62 $R_{\odot}$ and hence with a larger luminosity. For this reason, hot subdwarf stars are not the main target of this mission. Nevertheless, all stars with confirmed planets for which meaningful photometry can be extracted will be included. Thus, due to the large number of light curves possible, a wide science program reaching far beyond the exoplanet search will be conducted. Included are, for example, structure and evolution of Red Giant stars, hot OB sub-dwarf stars, massive stars, asymptotic giant branch stars and supergiants, white dwarfs, pre-main sequence stars, variable stars like eclipsing binaries or classical pulsators, as well as stellar clusters of various ages and metallicity. Discovering new planets around hot subdwarf stars would shed light on their formation and investigate the interactions between star and planet in the advanced stages of stellar evolution. In combination with *Gaia* results, *Plato* data will, furthermore, help significantly to better understand processes in our Milky Way (Nascimbeni et al. 2021).

In the course of this work, data from various observational programs was used to implement these analyses. The most important ones are presented in the following sections.

## 3.2 Using *Gaia* DR3 in search for stars

To study stars, the colours U-V and B-V used to be evaluated and thus displayed in two-colour diagrams as the distance information required for colour-magnitude diagrams or even physical Hertzsprung-Russell diagrams was not available for most stars. The color-magnitude diagram (CMD) is a powerful instrument for visualizing stellar evolution. In a CMD the apparent magnitude is plotted against a color index, a mathematical expression involving the apparent magnitudes observed with various wavelength filters. This requires the absolute magnitude of the object, which is based on distance data. Although it was previously possible to determine the distance of individual stars, progress in recent years, especially the *Gaia* mission significantly improved research by providing distance information for a billion stars, which makes it possible to create colour-magnitude diagrams for large samples. In addition, spectroscopic surveys such as SDSS and LAMOST as well as photometric surveys provide a wealth of data. In this context, also the re-analysis of known samples becomes of interest, however, in this work, the diversity of these data resources is used for the investigation of the recently defined *Plato* field.

### 3.2.1 The *Gaia*-Mission

In the 1980s and 1990s, the HIPPARCOS mission laid an important foundation for sky-mapping. The *Gaia* mission of the European Space Agency (ESA) followed on December 19, 2013, and was launched to enable extensive mapping of the stars in the Milky Way. It arrived a few weeks later at its place of operation near the second Lagrange point L2 of the Sun-Earth-Moon system, about 1.5 million kilometres away from us. About five years later, with the second data release *Gaia* DR2 (Gaia Collaboration et al. 2018), the mission collected positions, parallaxes, photometry, and proper motions of 1.3 billion stars with unprecedented precision, providing insight into the structure and dynamics of our galaxy. The mission, which was originally planned to run until 2019, has been extended until probably 2025, allowing numerous other stars to be studied. This was followed in December 2020 by *Gaia* EDR3 (Gaia Collaboration et al. 2021), which provided extensive astro- and photometric measurements. The remaining data were published in June 2022 as part of *Gaia* DR3 (Gaia Collaboration et al. 2023), which contains positions, magnitudes, and colours for 1.8 billion stars as well as parallaxes and proper motions for almost 1.5 billion stars.

The absolute magnitude of stars can be determined from the apparent magnitude and the distance data (see Section 3.2.2) obtained by the *Gaia* satellite. Using this and the colour of the stars, which is also measured, a physical Hertzsprung-Russell diagram can be created that uses the absolute magnitude as a measure of the luminosity and the colour as an indicator of the star's temperature (see Figure 3.2). In addition to the main sequence, which the majority of the stars are located on, a large number can be found on the white dwarf sequence. Between the upper end of the main sequence, where numerous blue stars are, and the white dwarfs, there is a small group of hot subdwarf stars which are considered in this work.

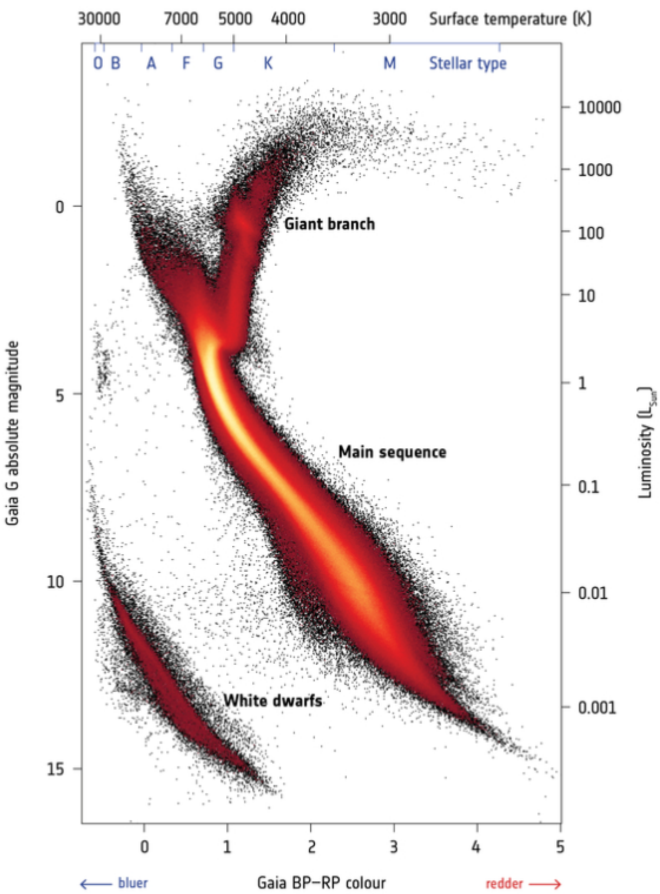



**Figure 3.2.** Physical Hertzsprung-Russell diagram of the stars from the *Gaia* DR2. The absolute magnitude is plotted as an indicator of the luminosity against the colour of the objects, which indicates the temperature (taken from: https://sci.esa.int/s/wKdy4dW).

The likely most significant achievement of the *Gaia* mission is the possibility to associate over a billion stars to stellar populations based on their position in the physical Hertzsprung-Russell diagram. Since the data release, numerous projects have made use of this resulting in extensive catalogues for various stellar populations such as white dwarfs, quasars, and also hot subdwarfs based on *Gaia* data. Thus, it is no longer necessary to rely on the individual evaluation of stars to collect samples but can access the data provided by *Gaia* or the resulting catalogues. This method is used in this work to create a sample of hot subdwarf stars of the *Plato* field, which is subsequently analysed further.

The analysis is based on the photometric and astrometric data, in particular the parallax values, from the most recent release *Gaia* DR3. The importance of parallax measurements for the investigation of hot subdwarf stars is explained in the next section.

### 3.2.2 The *Gaia*-parallax

The distance of an object to us is crucial for obtaining the full three-dimensional information of a star's position.
This can be obtained by measuring the annual parallax, which is just possible for close stars, and with very precise telescopes. Parallax measurements by DR2 and DR3 of the *Gaia* space observatory provided distance measurements, very accurate photometry, and proper motions for thousands of hot subdwarf stars.
The annual trigonometric parallax of a star is a measure for the apparent motion of it on the night sky for an observer on Earth, due to the Earth's rotation around the Sun. If the observed star is located exactly perpendicular to the Earth's orbit, the shape of the parallax appears circular. If the line of sight to the star lies within the ecliptic plane, a straight line can be observed. These are the most extreme cases and in general, the parallax will be elliptical.
For this, the parallax angle (see Figure 3.3) must be measured for at least half a year. Created by the different orbital positions of Earth, the observed shift is largest at time intervals of about six months, when Earth arrives at opposite sides of the Sun in its orbit, leading to a distance of about two astronomical units between observations.

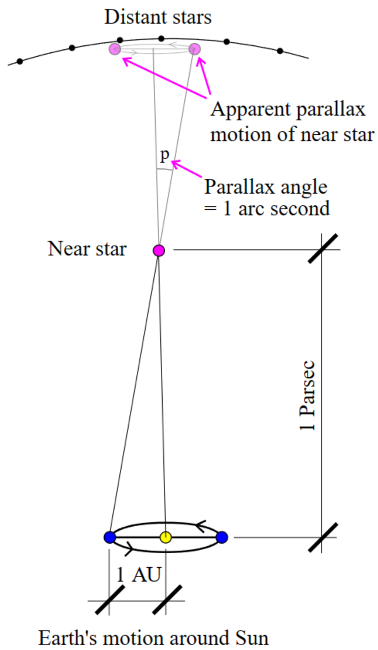



**Figure 3.3.** Definition of the trigonometric annual parallax angle $\varpi$, termed $p$ in this Figure (taken from: https://en.wikipedia.org/wiki/Stellar_parallax).

The distance $d$ in light years of an object can be derived from the parallax $\varpi$ with the relationship

$$\varpi \approx \tan\varpi = \frac{1\,\mathrm{AU}}{d} \longleftrightarrow d \approx \frac{1\,\mathrm{AU}}{\varpi} \tag{3.1}$$

with the small angle approximation and astronomical units $1\,\mathrm{AU} = 150 \cdot 10^9$ m, the radius of the Earth's orbit around the Sun. "Parsec" (pc) is the inverse of the parallax in arcseconds with 1 pc = 3.26 light years. So by measuring the amount of displacement, the parallax angle, and knowing the distance between the Sun and Earth, or *Gaia*, the star's distance is determined using simple trigonometry. The apparent motion of an object on the night sky is, however, a superposition of the elliptical parallax motion and the linear proper motion resulting in a spiral trajectory (see Figure 3.4). As stars are often far away, it is difficult to disentangle both from each other. Additionally, there is a practical detection limit for the parallax of a few kpc as the parallax angle shrinks with $1/d$, and longer measurement durations over years are required.

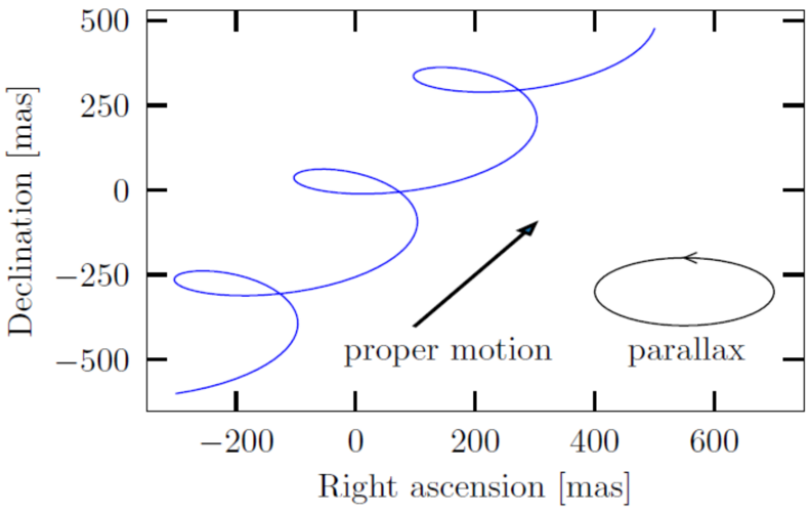



**Figure 3.4.** Superposition of the linear proper motion and the elliptical parallax motion of a star on the night sky depicted as a blue spiral trajectory (Dimpel 2018).

### 3.2.3 The *Gaia*-Archive

Objects were searched for in the *Plato* field using *Gaia* DR3 (Gaia Collaboration et al. 2023), whereby a selection of stars was made based on their colour, magnitude and parallax (*Gaia*-Archive: https://gea.esac.esa.int/archive/). For this, various parameters were passed to an ADQL search query in order to obtain the desired objects (see Appendices A.1). The exact coordinates of the confined field are $230.9375 \leq l \leq 280.9375$ and $-49.62432 \leq b \leq -9.63432$. This differs from the coordinates chosen by the *Plato* mission of about $-49.62432 \leq b \leq -0.63432$ to cut out the Galactic disc. The distance to the Galactic disc reduces interstellar absorption by gas and dust, which allows a more precise view of the sky. Due to the large size and the associated very high number of resulting objects, only objects with a parallax error of less than 20 % were selected and the colour criterion was limited to $-0.7 \leq G(\mathrm{BP})$ - $G\ (\mathrm{RP}) \leq 0.7$, which corresponds to the blue colour range in which hot subdwarfs emit. In addition, an apparent magnitude $< 19.5$ was selected, as the number of objects outside this limit was low and no hot subdwarfs are expected in the area. The detection of objects up to a magnitude of 19.5 mag enables the examination of distant and correspondingly fainter objects. Despite the numerous restrictions which are also listed in Table 3.3, 165919 objects were obtained. This list serves as a starting point, with which specific selection criteria are then determined.

The stars considered are shown in figure 3.5 and are located in the Southern Hemisphere in an approximately 50 ° x 50 ° large field.

### 3.2.4 Further surveys

The physical Hertzsprung-Russell diagram based on observed magnitude and colour is refined by determining the effective temperatures and luminosities, which requires photometric data. Thanks to the digitalisation of many sky surveys, the analyses are no longer limited to two-colour diagrams as before, but enable the reconstruction of entire energy distributions (SED) by assembling all available data. Besides *Gaia*, various photometric sky surveys are used for the analyses, some of which are presented briefly in Chapter 4.

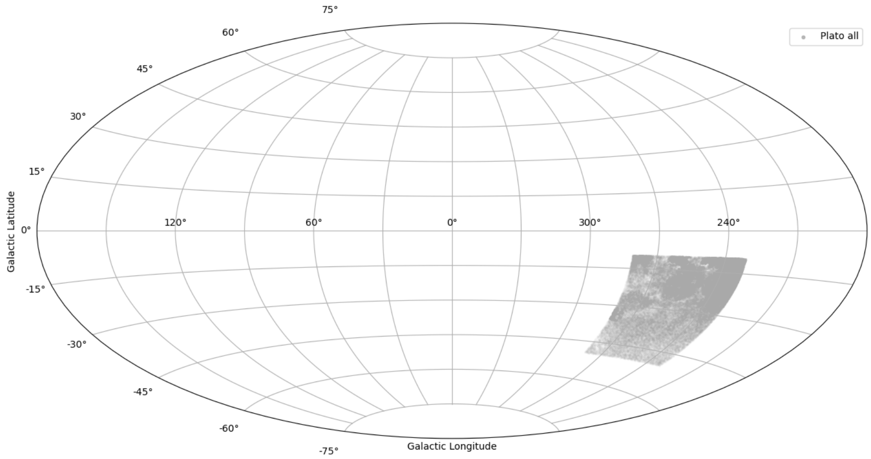



**Figure 3.5.** The objects recorded in the *Plato* field in a Galactic coordinate system.

In the course of this work, only spectral energy distributions based on photometric data were analysed, as the large number of hot subdwarf candidates in the *Plato* field left no room for the study of stellar spectra. Individual spectra from observation programs such as SDSS or LAMOST would provide further information about the chemical composition as the helium abundance, temperature, gravitational acceleration, and motion of the star with greater accuracy than is possible with an SED. The SED fits can then be performed again with the atmospheric parameters determined from spectra to obtain particularly precise results. However, SED fits are a powerful tool, as the approach also provides information on stars for which spectroscopic analyses are not possible. The procedure and basic information on the modelling of SEDs are presented in Chapter 4.

Furthermore, looking to the future, spectroscopic surveys such as 4MOST (see `https://www.4most.eu/cms/home/`) will open up new horizons by being able to detect much dimmer stars than previous observation programs. In particular, numerous hot subdwarf stars are expected in the magnitude range from 16 mag to 18 mag, a range that has hardly been studied so far. As the selection of stars in the *Plato* field covers a similar magnitude range to 4MOST, these analyses offer a preview of the possibilities that this and similar future projects offer for deepening the knowledge about hot subdwarf stars.

## 3.3 Comparison to catalogue objects

The sample of the *Plato* field is now prepared through comparison of the stars from the *Gaia*-Archive (see Section 3.2.3) with existing catalogues for hot subdwarf stars, potential candidates, white dwarfs, stars of the blue horizontal branch, quasars, and others, which enables a well-founded selection of the objects to be analysed. The methodology and criteria for this pre-selection are now discussed.

The first step of the investigations is aimed at extracting a sample of hot subdwarf stars from the *Gaia* data of the *Plato* field to provide the foundation for more in-depth analyses of these stars in the further steps. For this purpose, these objects were compared with various specialised catalogues. These are not catalogues in the classical sense, which contain identified objects, but *Gaia*-based catalogues. Data collected from *Gaia* prove to be particularly useful for the selection of a sample, as the population of the sample studied in this thesis is selected using catalogues of different blue subluminous stars based on the *Gaia* data.

Catalogues were also available before the publication of this data, but their content is hardly comparable with that used here, as these served as collections of known research results where all information was summarised in joint catalogues. But, the diversity of data sources through various measurements led to problems in the formation of catalogues, as these were, for example, often incomplete. However, *Gaia*'s colour-magnitude diagram opened up the opportunity to create comprehensive catalogues for different objects with stars being categorised via their position in that diagram (see Figure 3.6). Based on defined selection criteria, the objects are then compiled and included in a catalogue of selected stars.

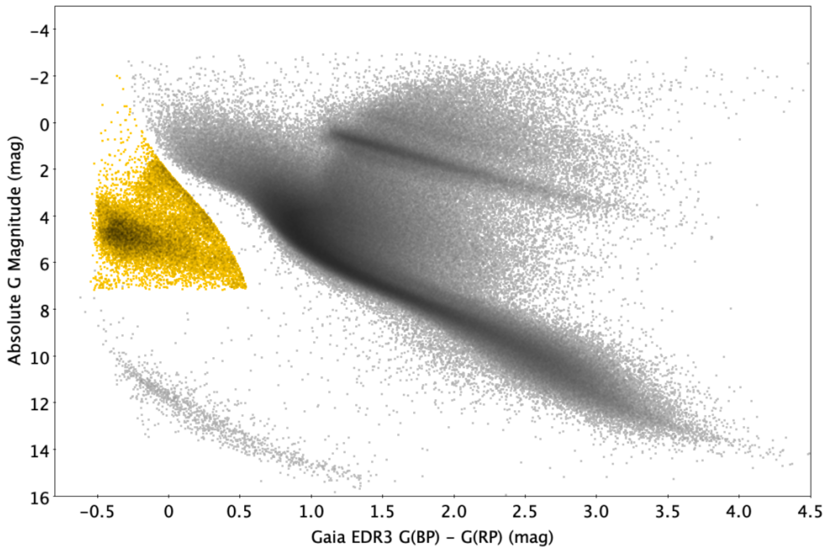



**Figure 3.6.** The hot subdwarf stars from *Gaia* EDR3 catalogued by Culpan et al. (2022) on the basis of several criteria.

Catalogues created in this way are based on consistent data and, in contrast to older catalogues, which primary list spectroscopically identified objects, form compilations of potential candidates, as no spectroscopic identification is conducted. The selection criteria used play a central role and the more precise these criteria are chosen, the better the catalogue captures the desired objects. These are only candidates and contamination by other stars cannot be avoided, which is taken into account during the analysis. The specific catalogues that were used to create the sample of the *Plato* field are listed in the following. Table 3.1 also provides an overview of all catalogues used.

- **Hot subdwarf stars:** Since hot subdwarf stars are the primary target of this work, both *Gaia*-based catalogues and classical catalogues with collections of already identified hot subdwarfs were used for these objects. Culpan et al. (2022) and Geier (2020) provide comprehensive catalogues of known hot subdwarf stars, while further catalogues by Culpan et al. (2022) and Geier et al. (2019), based on *Gaia*, contain candidates for hot subdwarfs. The catalogues of Culpan et al., which are a recent version of Geier's catalogues, include atmospheric parameters of over 1500 hot subdwarf stars based on LAMOST data. Geier (2020) and Geier et al. (2019) use *Gaia* DR2, while Culpan et al. (2022) uses *Gaia* EDR3. For the analysis in this work, in addition to the two Geier-catalogues, a Culpan-catalogue updated in 2023 was used, which contains both candidates and known hot subdwarfs. Several specific selection criteria were taken into account when developing these catalogues. These criteria primarily use the position of the hot sub dwarf stars in the physical Hertzsprung-Russell diagram and select them based on their magnitude and colour. The absolute magnitude $M_G$ is derived from the apparent magnitude $m_G$ of *Gaia* and distance information, the parallax $\varpi$, or the proper motions, as $M_G = m_G + 5 \cdot (\log\varpi + 1)$. To ensure reliable results of the absolute magnitude, the selection is limited to stars with parallax errors of less than 20%, which means that 90% of the selected stars are at a distance of less than 3kpc from the Sun. For stars with larger parallax errors, the reduced proper motion is used, whereby the determination of the absolute magnitude is analogous to the one using parallax. With the selection criteria, a total of 13123 stars could be included in the catalogue based on their parallax and 48462 stars based on their reduced proper motion. The additional selection criteria, which are intended to prevent contamination of the catalogue with other stars, are described in detail in Culpan et al. (2022).

- **LMC stars** As the *Plato* field covers about half of the Large Magellanic Cloud (LMC), the catalogue of Jiménez-Arranz et al. (2023) of LMC stars is taken into account. For this, stars with a probability higher than 0.1 are excluded from the sample.

To produce the sample of hot subdwarfs, all objects from these three lists ( Geier 2020; Geier et al. 2019; revised catalogue from Culpan et al. 2023) were used to create a new list of 737 objects in total, ensuring that each object was only listed once. This list was compared with the LMC catalogue, resulting in a final 694 objects. These 694 stars were then analysed using SEDs and the results were discussed in detail. In addition, a sample of stars that do not appear in any of the catalogues and thus represent new discoveries for hot subdwarf candidates was determined. For this purpose, the initial 165919 objects of the *Gaia* database were subtracted from all listed catalogues, including those of the hot subdwarf and the LMC stars. The resulting objects were then constrained further, as explained in the following section. Other catalogues used to construct the "discovery"sample are:

- **BHB stars:** Blue horizontal branch stars (BHB stars) represent late evolutionary stages of light main sequence stars. BHB and hot subdwarf stars lie adjacent in the HRD, but investigation of the stars reveals that a distinct gap occurs between these two stars that cannot be explained and could be understood by determining parameters for both BHB and hot subdwarf stars. Due to the proximity, it is expected that the hot subdwarf catalogues presented may also contain BHB stars. The comparison with the catalogue of Culpan et al. (2021) ensures that primarily hot subdwarf stars remain.

- **WD stars:** In addition, white dwarfs in the *Plato* field were identified and removed in the course of preparing the new sample with the catalogue of Gentile Fusillo et al. (2021), which is based on data from *Gaia* EDR3.

- **ELM WD stars:** Extreme low mass white dwarfs originate from binary systems and only about 100 ELM WDs are known. These are located in the region between the subdwarfs and the white dwarf sequence. In comparison to hot subdwarfs, they show lower temperatures and similar surface gravities, thus contributing to the hot subdwarf contamination. The ELM catalogue of Pelisoli and Vos (2019) is considered.

- **Quasars and galaxies:** Quasars are the active nuclei of galaxies and are faint blue objects. They do not play a role in this analysis and are excluded on the basis of several catalogues (see table 3.1). Galaxies are also filtered out by the catalogue of Hughes et al. (2022). The catalogues are candidates based on *Gaia*-data, which may also belong to other star classes.

**Table 3.1:** Catalogues that were used to identify the objects in the *Plato* field. The second column lists the name of the respective catalogue in the VizieR database and the third column contains the corresponding sources.

| catalogue objects | VizieR-name | source |
|---|---|---|
| Known sd-stars | J/A+A/635/A40/sdcatdr2 | (Geier 2020) |
| | J/A+A/662/A40/knownhsd | (Culpan et al. 2022) |
| Sd-candidates | J/A+A/621/A38/catalog | (Geier et al. 2019) |
| | J/A+A/662/A40/hotsd | (Culpan et al. 2022) |
| BHB-stars | J/A+A/654/A107 | (Culpan et al. 2021) |
| WDs | J/MNRAS/508/3877/maincat | (Gentile Fusillo et al. 2021) |
| ELM WDs | J/MNRAS/488/2892/table2 | (Pelisoli and Vos 2019) |
| Quasars | VII/294/catalog | (Flesch 2022) |
| | I/356/qsocand | (Gaia Collaboration et al. 2022) |
| | J/A+A/668/A99 | (Hughes et al. 2022) |

The catalogues listed are accessible via the "VizieR"database (Ochsenbein et al. 2000) and enable the detailed identification of different types of stars, in particular the relevant hot subdwarf stars. These thus form the basis for the investigation of hot subdwarfs in the *Plato* field.

The *TOPCAT* software (Tool for OPerations on Catalogues And Tabels) was used to compare objects in the *Plato* field with the data in the various catalogues.
The catalogues can be queried via the Table Access Protocol (TAP) using the Astronomical Data Query Language (ADQL), a variant of the Structured Query Language (SQL) (for an example ADQL search query see Appendices A.1).

Matching objects are identified using the coordinates of the objects, whereby the program searches for objects in the catalogues within a given search radius of 2 arcsec around the coordinates of the *Gaia* data. The search radius was chosen to ensure that as many objects as possible can be analysed and that several objects in the matched catalogue are not identified with one object in the *Gaia* data. This becomes more important as the population increases towards the Galactic disc. Due to the high accuracy of the *Gaia* DR3 coordinates, the small search radius led to precise matches, which are then saved in a new table.

By performing the catalogue matches described above, a comprehensive identification of different types of blue stars within the *Plato* field could be performed. This identified 99 known hot subdwarf stars from (Geier 2020), 607 candidates from (Geier et al. 2019), and 636 known hot subdwarfs and candidates in the updated list by Culpan et al. (2023; based on Culpan et al. 2022 and Culpan et al. 2021).

Furthermore, 868 stars that can be assigned to the blue horizontal branch and 5930 white dwarfs were detected. Interestingly, 234 ELM white dwarfs are also included, which is remarkable due to the small number of known objects. In addition, a total of 899 objects were identified as quasars and 44 as galaxies. It was also compared to the catalogue of "misclassifications" mentioned in (Culpan et al. 2022) but not listed in VizieR resulting in 3 matching objects. These stars were misclassified as subdwarfs in prior publications.

The results of the catalogue matching can be found in the colour-magnitude diagram, which corresponds to the physical Hertzsprung-Russell diagram, in Figure 3.7.

**Table 3.2:** Number of objects identified by the catalogue matches in the *Plato* field.

| Type of object | Matches |
|---|---|
| Geier known sd-stars | 99 |
| Geier sd-candidates | 607 |
| Culpan sd-stars | 636 |
| BHB stars | 868 |
| WDs | 5930 |
| ELM WDs | 234 |
| Quasars | 899 |
| galaxies | 44 |

The colour of the objects $G$(BP-RP), the apparent magnitude $m_G$ and the parallax $\varpi$ from the *Gaia* data were used for this and the absolute magnitude $M_G$ was derived by

$$M_G = m_G + 5 + 5 \cdot \log_{10}(\varpi/1000). \quad (3.2)$$

Since only precise parallax measurements with an error of less than 20% were taken into account, a high accuracy of the calculated absolute magnitude can be assumed.

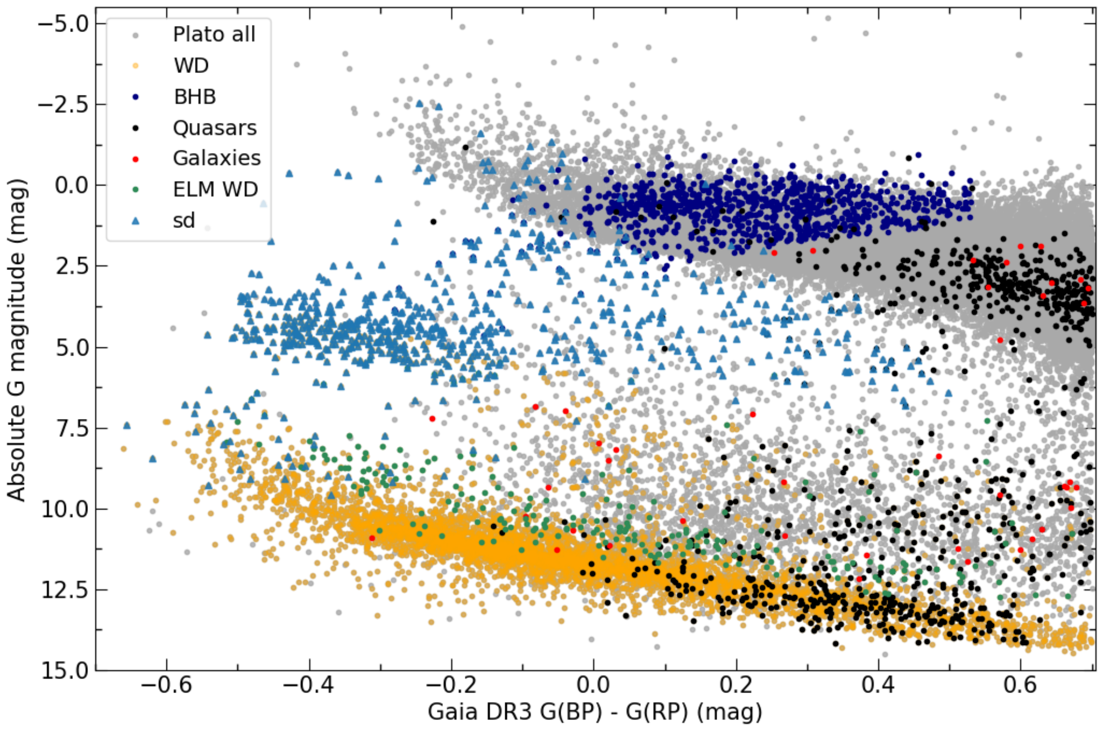



**Figure 3.7.** CMD diagram of the *Plato* field. The value ranges of the colour and the absolute magnitude are limited by the selection of the *Gaia*-Archive data (see Section 3.2.3). Shown are subdwarfs (blue), white dwarfs (yellow), BHB stars (dark blue), ELMs (green), Quasars (black), and galaxies (red). The light grey dots represent the remaining unidentified sample.

Most stars in Figure 3.7 accumulate in the upper grey-shaded region which forms the main sequence region. Some hot subdwarfs are located in the white dwarf sequence, which is why white dwarfs are also expected among the hot sub-dwarf candidates. In addition, some hot subdwarf candidates are located close to the BHB stars. This suggests that the sample also contains BHB stars. Nevertheless, most of the hot sub-dwarf stars are in the expected range of the EHB.

As mentioned in section 3.2.3, the *Plato* field overlaps with the LMC, which is why a possible contamination by LMC stars was taken into account for the samples obtained. The 737 objects received from the combination of the lists with hot subdwarfs were reduced to 694 objects by comparison with the LMC catalogue. Likewise, the discovery sample of 199 stars that do not match any of the objects listed in Table 3.2 and fulfil the criteria defined in section 3.4 was reduced to 91. For this purpose, only objects that meet the criteria listed in the catalogue for the probability of being an LMC star of greater than 0.1 were excluded.

To cover as many hot subdwarf stars as possible, all 694 stars that were identified as hot subdwarfs or potential candidates by the catalogue comparisons were included in the sample for the SED analysis.

## 3.4 Sample preparation - further constraints

From the catalogue comparison, 158157 objects remained that did not result in a match. Too many to be analysed by the used SED fitting procedure (see Chapter 4). This "discovery"-sample was reduced using various constraints listed in Culpan et al. (2022), apart from those for the selection of initial *Plato* field stars (see Section 3.3). An absolute magnitude criteria $G_{\rm abs} \leq 7$ was applied using the equation 3.2 (see the red horizontal line in Figure 3.8). Aditionally, photometric and astrometric quality criteria constrained the number of objects.
`astrometric_sigma5d_max` $< 1.5$ limits the five-dimensional uncertainty in the astrometric solution and `|phot_bp_rp_excess_factor_corrected|` $< 0.6$ was used to filter sources with inconsistencies in $G$, $G_{\rm BP}$, and $G_{\rm RP}$ photometry (Culpan et al. 2022). A polynomial was used in colour–magnitude space (see Table 3.3) to cut out the main sequence stars (see the red curve in Figure 3.8). The constraints were varied in order to obtain the ideal selection for the sample.
Coincidentally, the optimal parameters match those of the used in (Culpan et al. 2022), suggesting continuity in the process of investigating hot subdwarf stars. This resulted in 199 sample objects. These 199 stars were then reduced to 91 using the previously mentioned catalogue of LMC stars (see Section 3.3; Jiménez-Arranz et al. 2023). The *Gaia* values of the 91 remaining objects are shown in the Appendices A.2.

**Table 3.3:** Table of selection criteria applied to *Gaia* DR3 to define the hot subdwarf star candidate selection from colour and absolute G magnitude using sources with good parallax. In grey are prior applied criteria of the initial *Plato* field stars selection, and in black are the additional constraints on the "discovery"-sample stars not listed in the matched catalogues (see Section 3.3). The criteria were extracted from Culpan et al. (2022).

| 1. *Gaia* DR3 hot subluminous star CMD ranges: |
| --- |
| $-0.7 \leq (G_{\rm BP} - G_{\rm RP}) \leq 0.7$ |
| $G_{\rm abs} \leq 7$ |
| **2. Astrometric quality selection criteria:** |
| `parallax` $> 0$ |
| `parallax_over_error` $> 5$ |
| `astrometric_sigma5d_max` $< 1.5$ |
| **3. Photometric quality selection criteria:** |
| `|phot_bp_rp_excess_factor_corrected|` $< 0.6$ |
| **4. *Gaia* DR3 CMD main sequence region rejection criterion:** |
| $G_{\rm abs} < 17.7(G_{\rm BP} - G_{\rm RP})^3 - 6.9(G_{\rm BP} - G_{\rm RP})^2 + 7.35(G_{\rm BP} - G_{\rm RP}) + 1.95$ |

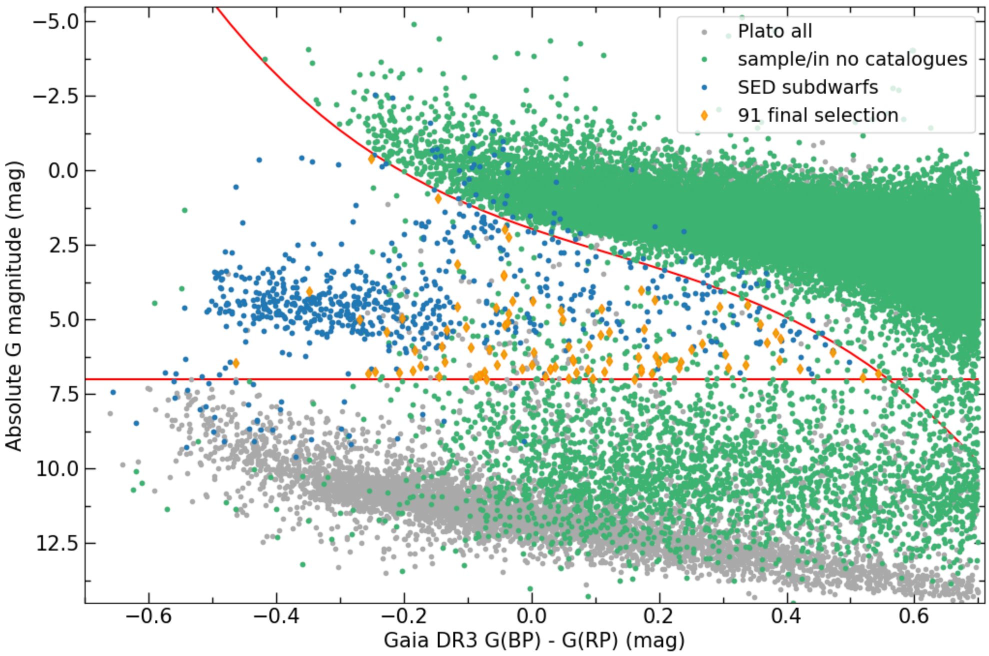



**Figure 3.8.** *Gaia* DR3 colour–magnitude diagram showing the 158157 initial candidate objects of the *Plato* field in grey with the *Gaia* DR3 CMD hot subluminous star region selection criteria to cut out the main sequence (upper red curve) and the hot subluminous star CMD range (red horizontal line). Stars that do not appear in any catalogues are green, objects used for the SED fitting procedure are blue, and the 91 final selection sample stars are shown as orange diamonds.

These 91 stars have been sorted out by Culpan et al. (2022) through further constraints using a criterion that takes the flux of the neighbourhood in 5 arcsec around the hot subdwarf into account. This excluded candidates with significant contamination from other stars, to minimise crowded regions. In the newly derived sample in Figure 3.9, an accumulation on the left which corresponds to the position of the LMC is noticable. This accumulation also makes the criteria reasonable, as regions of high apparent stellar density are known to be more susceptible to inaccuracies in the determination of the $G_{\rm BP}$, and $G_{\rm RP}$ background. Based on this criteria, it can be concluded that the remaining stars are not suitable for further investigation. Therefore, the mentioned catalogues of hot subdwarf stars have already extensively captured the population of the *Plato* field and can be used in good conscience as a sample for the SED fitting procedure.

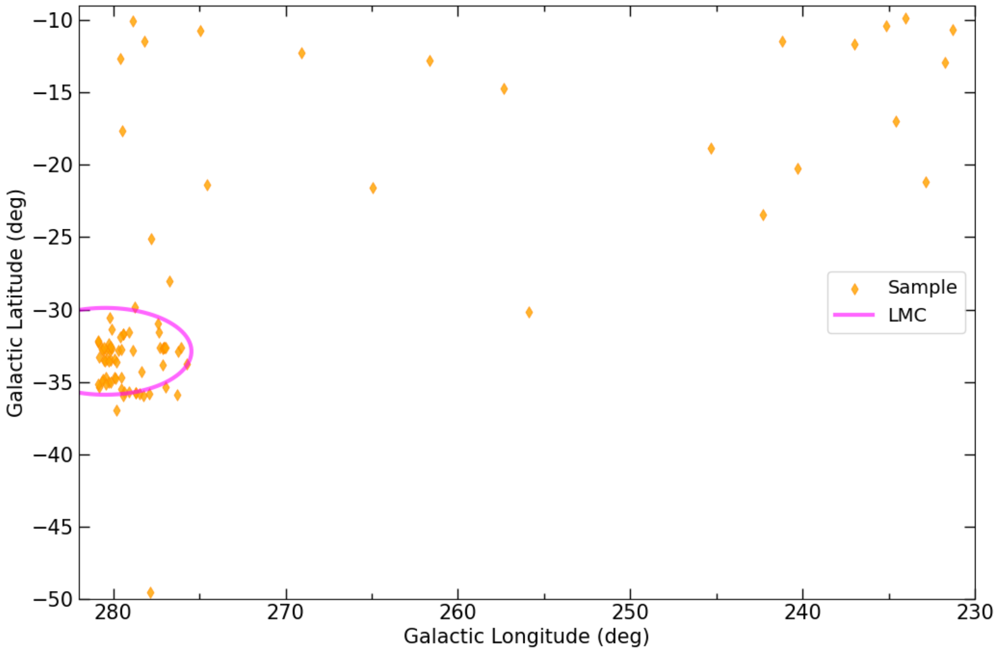



**Figure 3.9.** 91 final selection sample stars shown as orange diamonds in a Galactic coordinate system. The position of the LMC is marked with an ellipse in magenta.

# Chapter 4

# Spectral energy distribution of stars

The spectral energy distribution (SED) is defined as the energy emitted by an object as a function of wavelength or frequency. In the following the term SED is used to refer to the observed spectral flux density $F_\lambda$. Various large and deep photometric surveys image the sky via CCD technology covering from the ultra-violet (UV) to the infrared (IR). The maximum radiation emitted by a star depends on its temperature. With increasing temperature, the radiation maximum shifts from the IR to the UV range. With the combination of apparent magnitudes from these and older surveys SEDs for almost all stars can be constructed, which exceeds the number of objects that can be observed spectroscopically. The most important modern photometric surveys in the optical range are, for example, SDSS (Alam et al. 2015), SkyMapper (Onken et al. 2019), and *Gaia* (Riello et al. 2021). Additionally, the *Gaia* space mission provided photometric low-resolution spectra that are here considered as a sequence of box filters. The ground-based 2MASS survey (Cutri et al. 2003), the UKIDSS survey (Lawrence et al. 2007), and several surveys carried out at the VISTA telescope, such as VHS (McMahon et al. 2013) and VIKING (Edge et al. 2013) deliver information about the near-infrared range and furthermore, the near- to mid-infrared range is provided by the WISE satellite (Schlafly et al. 2019). The UV is covered by the GALEX satellite (Bianchi et al. 2017) and by low-resolution IUE spectra for several bright hot subdwarfs (González-Riestra et al. 2001). A list of the photometric sky surveys used can be found in Appendix B of Culpan et al. (2024). Model fits from several observed magnitudes are performed to SEDs to determine an object's effective temperature $T_{\mathrm{eff}}$ and angular diameter $\Theta$, which quantifies the model flux independent of wavelength, on the sky.

For F/G/K-type stars it is possible to obtain precise temperatures because most of their flux is emitted between the near-UV and mid-IR spectral ranges. Hotter stars, for example, are more difficult to observe as they particulary emit in the far- or extreme-UV and hence are affected by interstellar absorption. This makes the value of $T_{\mathrm{eff}}$ from SED less accurate. For cool companions, however, the results are less accurate when no IR measurement is available. SED fits are also tool for binary detection. A double-peaked SED is termed composite, meaning a binary system that consists of a fairly hot and a notably cooler star, and for a binary with a hot subdwarf and a main-sequence F/G/K-type star both components are clear distingiushable. Companions that are fainter to subdwarfs as M-type dwarfs or white dwarfs can not be captured as they are outshined by the hot component. Hot subdwarf O companions are not detectable to more luminous main-sequence B or A-type stars at any observable wavelength with the SED fitting method. The identification of companion stars provides important information on the contribution of the Common-envelope and Roche lobe overflow scenarios to the formation of hot subdwarf stars. The parameters of the companion stars derived by the SED make it possible to further develop existing models. In order to generate accurate information with SED fits, good coverage of all spectral regions with photometry is necessary.

## 4.1 The SED fitting method

The SED fits in this work are based on the methods introduced by Heber et al. (2018). During the fitting process, photometric measurements based on the coordinates of the individual object to be analysed are collected automatically from individual catalogues. This is done via the Table Access Protocol (TAP) using the Astronomical Data Query Language (ADQL) to search in, for example, the VizieR database (Ochsenbein et al. 2000). The observed magnitudes can be compared to the synthetic magnitudes, but to compute these synthetic magnitudes, the complex circumstances under which the photometric measurements were conducted have to be taken into account.

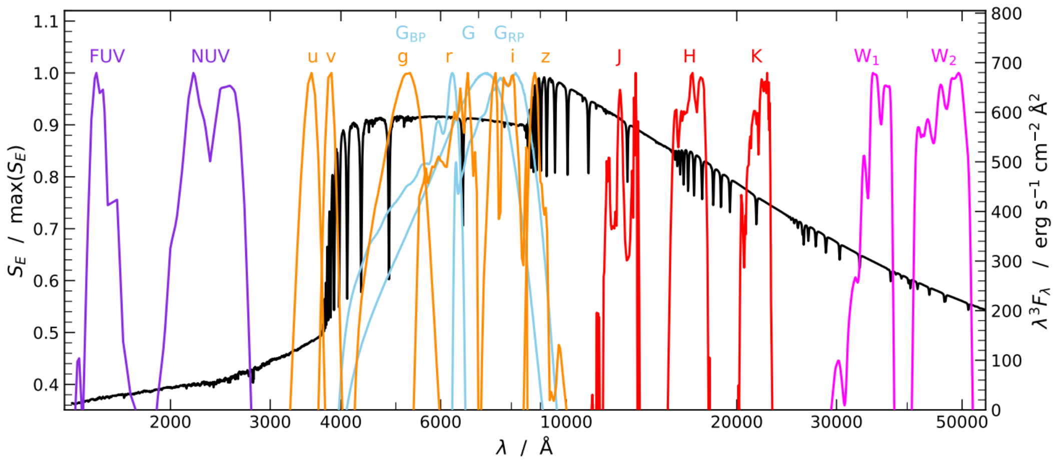



**Figure 4.1.** Important energy response curves $S_E$, for GALEX (violet), SkyMapper (orange), *Gaia* (light blue), 2MASS (red), and the first two WISE filters (fuchsia), are illustrated. The observed SED for Vega, or the reference flux-calibrated spectrum, multiplied with $\lambda^3$ is shown by the black curve (Dorsch 2023).

Weather-dependent telluric absorption especially affects near-UV and near-IR filters of ground-based surveys, leading to uncertainty. So to do this, it is necessary to know the full optical response functions of the photometric measurements. These functions are usually referred to as photon response functions $S_P(\lambda)$ or also as energy response functions $S_E(\lambda) = \lambda S_P(\lambda)$. Figure 4.1 depicts some of the most important energy response functions. With a model spectrum, synthetic magnitudes can then be determined for each filter using

$$\text{magnitude}_{\text{syn}} = -2.5 \log \left( \frac{\int_0^\infty S_P(\lambda) f(\lambda) \lambda d\lambda}{\int_0^\infty S_P(\lambda) f_{\text{ref}}(\lambda) \lambda d\lambda} \right) + \text{magnitude}_{\text{ref}} \tag{4.1}$$

with the $f(\lambda)$ flux density of the star from Earth, $f_{\text{ref}}$ the reference flux density distribution, for example, of Vega, $S_P(\lambda)$ the response function of the respective filter and $\text{magnitude}_{\text{ref}}$, which defines a zero point of the filter used with the help of the reference star.

The flux density on Earth is defined as

$$f = \frac{F(\lambda)\Theta^2}{4} \tag{4.2}$$

with $F(\lambda)$ the model flux density on the stellar surface and $\Theta$ the angular diameter.

The flux distribution is affected by the interstellar medium (ISM) as dust grains between the observer and the star along the line of sight scatter and absorb light. Blue light is more affected than red light, which is termed “reddening“. To account for this interstellar extinction $A(\lambda)$ for a particular wavelength $\lambda$, the model flux density is taken by a factor of $10^{-0.4A(\lambda)}$. This extinction is characterized by the colour excess $E(44 - 55)$ and the extinction parameter $R(55)$

= $A(55)/E(44 - 55)$, where 44 and 55 are a short-term for 4400 Å and 5500 Å (Fitzpatrick et al. 2019). The fits in this work are set to an extinction parameter of $R(55) = 3.02$, representing an average value for the Milky Way's ISM. The colour excess is usually a free parameter in the SED fits and was only set to the highest map value if the freely derived value exceeds this. A model flux is computed as follows using

$$\text{magnitude}_{\text{syn}} = -2.5 \log \left( \frac{\Theta^2 \int_0^\infty S_P(\lambda) 10^{-0.4A(\lambda)} f(\lambda) \lambda d\lambda}{4 \int_0^\infty S_P(\lambda) f_{\text{ref}}(\lambda) \lambda d\lambda} \right) + \text{magnitude}_{\text{ref}} \tag{4.3}$$

The obtained model flux then can be compared to photometric measurements. The least square method minimises differences between the actual and computed model flux by adapting the model spectrum. These calculations are integrated into an automated program created by Dr Andreas Irrgang using the "Interactive Spectral Interpretations System"(ISIS). The spectra used for the calculations are generated by model grids presented by the following.

### 4.1.1 Model grids

Several model grids were used to produce the SEDs (see Table 4.1), which model the atmosphere of the stars and thus generate synthetic spectra for the fit. The range of properties extends from sdO to BHB stars. For the fit of binary systems, parameter ranges of main sequence stars were used. All SED fits were carried out as a binary star system, whereby the main sequence companion was always fitted with the Phoenix_late_type_stars model grid, with the fit range set to 2300 K $< T_{\text{eff,comp}} <$ 7000 K as a companion with more than 7000 K would outshine the hot subdwarf, and the primary star with one of the other model grids. The model grids used with the parameter ranges are listed in Table 4.1.

**Table 4.1:** Model grids used for the SED fits, together with the parameter ranges they cover. For cool stars from 9000 K to 20000 K the ELM_BHB grid was used. The companions were fitted with the Phoenix_late_type_stars grid together with one of the other grids for the primary star. The sdB24 grid is a new Version of the sdB grid and was used for WD candidates of the sample.

| name | $T_{\text{eff}}$ (K) | log $g$ (cgs) | log $n$(He) |
|---|---|---|---|
| shot_sdO | 115000 – 91000 | 5.2 – 7.0 | -5.05 – -0.041 |
| vhot_sdO | 71000 – 99000 | 5.2 – 7.0 | -5.05 – -0.041 |
| hot_sdO | 51000 – 75000 | 5.2 – 6.6 | -5.05 – -0.041 |
| He_sdO_Z0.00 | 25000 – 55000 | 4.0 – 6.0 | -1.05 – -0.001 |
| sdB | 15000 – 55000 | 4.6 – 6.6 | -5.05 – -0.041 |
| sdB24 | 15000 – 55000 | 4.6 – 7.0 | -5.05 – -0.041 |
| ELM_BHB | 9000 – 20000 | 2.8 – 7.0 | -5.05 – -0.300 |
| SYNTHE | 3800 – 11000 | 1.2 – 5.2 | -1.00 |
| Phoenix_late_type_stars | 2300 – 15000 | 2.0 – 5.0 | -1.05 |

Within a model grid, synthetic spectra can be adjusted to the data using several parameters, whereby the exact procedure for stars of the *Plato* field is explained in Section 4.2. By means of the atmospheric parameters to be determined from the SEDs, which were mentioned above, and distance parameters, stellar parameters are derived, which will now be discussed.

### 4.1.2 Radius and luminosity derivation through *Gaia* parallaxes

Until a few years ago, stellar properties such as radius, mass, and luminosity of hot subdwarfs were largely predicted by models and could only be determined for a few stars, but in recent years this has become possible for a large number of stars thanks to the *Gaia* mission and its distance information.

The angular diameter $\Theta$ from photometry combined with parallax measurements $\varpi$ allow the determination of the stellar parameters radius $R$ and luminosity $L$. The stellar radius is obtained with

$$R = \frac{\Theta}{2\varpi} \tag{4.4}$$

and the luminosity $L$ is given by

$$L = 4\pi R^2 \, \sigma_{\mathrm{SB}} \, T_{\mathrm{eff}}^4 \tag{4.5}$$

with $\sigma_{\mathrm{SB}}$ the Stefan-Boltzmann constant and $T_{\mathrm{eff}}$ the effective temperature determined from the SED. The radii of hot subdwarfs typically range from 0.1 $R_\odot$ - 0.2 $R_\odot$, while the luminosities can vary from 10 $L_\odot$ to 100 $L_\odot$.

The stellar mass can be derived for a known surface gravity log $g$ as $M = gR^2/G$ with $G$ the gravitational constant. While $T_{\mathrm{eff}}$ can be derived up to a certain temperature via SED fitting, increasing the uncertainties of the derived luminosity at high effective temperatures, the determination of log $g$ is strongly limited or impossible at all, which also makes it impossible to derive the mass. Hence, the surface gravity log $g$ can either be measured from the strength of the hydrogen Balmer jump for A- and B-type stars with very good photometry, or defined spectroscopically.

To get from atmospheric to stellar parameters, precise zero-point corrected (e.g. Lindegren et al. 2021) parallax data from the *Gaia* mission (Gaia Collaboration et al. 2016), particularly *Gaia* DR3 (Gaia Collaboration et al. 2023), are used throughout this thesis. This makes it possible to receive stellar radii in particular very accurately and allows us to convert atmospheric parameters to fundamental stellar parameters without relying on predictions from evolutionary models.

## 4.2 Analysis methodology of stars in the *Plato* field

Now that the objects to be examined have been selected, they are analysed with the help of extensive photometric data from numerous sky surveys by modelling and examining SED fits of the individual objects. Several parameters were adjusted to fit the photometric data to the spectral curve. The fit parameters are

- angular diameter $\Theta$
- effective temperature $T_{\mathrm{eff}}$
- surface gravity log $g$
- helium abundance log $n(\mathrm{He})/n(\mathrm{H})$
- metallicity $z$
- interstellar reddening $E$(44-55)

These were mostly fixed to values that were either available in the literature or manually set to a specific value. Exceptions are described below. For the companion, the parameters

- surface ratio $A_{\mathrm{comp}}/A_{\mathrm{sd}}$

- effective temperature $T_{\mathrm{eff,comp}}$
- surface gravity log $g_{\mathrm{comp}}$

were added. If the value of the surface ratio $A_{\mathrm{comp}}/A_{\mathrm{sd}}$ approaches zero, the companion is no longer taken into account in the fit. The surface gravity of the companion was set to $g_{\mathrm{comp}}$ = 4.5 for all SED fits. Therefore, the knowledge about the companion is limited to its effective temperature $T_{\mathrm{eff,comp}}$ and the stellar parameters $R$ and $L$.

In order to conduct the SED modelling, it is necessary to define initial values for the various fit parameters, in particular effective temperature, surface gravity and helium abundance, which will now be discussed.

Values of the effective temperature were taken from the literature, if available. Otherwise, the effective temperature determined by *Gaia* provided a starting value. These form a basis for a consistency check of the results. Approximately 50 % of the value was given to the programme as an error in order to find the best fit over a large range. When no information about the effective temperature was available, the starting value was set to $T_{\mathrm{eff}} = 25000 \pm 15000$ K, which starts the fit over the sdB model grid. This is reasonable as the majority of the stars are between 20000 K and 35000 K.

Since there is a direct relationship between the surface gravity log $g$ and the effective temperature $T_{\mathrm{eff}}$, it is necessary to set log $g$ to correspond to the selected initial value of $T_{\mathrm{eff}}$. The surface gravity values were determined using the Kiel diagram (see Figure 4.2). For this purpose, exponential functions were fitted to the limits of the EHB, ZAEHB and TAEHB, partially extrapolated to extend to low $T_{\mathrm{eff}}$, and a mean value function was formed. This provides the correlation used to determine the log $g$ values depending on the $T_{\mathrm{eff}}$ values given or determined by SED:

$$\log g = \frac{a \cdot \exp(b \cdot (T_{\mathrm{eff}} + l) + c) + d \cdot \exp(e \cdot (T_{\mathrm{eff}} + m) + f)}{2} \tag{4.6}$$

with $a$ = -5.92, $b$ = -6.27·10$^{-05}$, $l$ = -138.33, $c$ = 6.45, $d$ = -11.63, $e$ = -7.43·10$^{-05}$, $m$ = 9189.89, and $f$ = 6.5. The error range of log $g$ is formed by the two exponential functions. This procedure seems feasible, as hot subdwarf stars are primarily found in this range. For objects exceeding $T_{\mathrm{eff}}$ of 35000 K, the evolutionary track for a canonical mass of 0.471 $M_{\odot}$ suggested by extreme horizontal branch models was taken for the fitting procedure because extrapolation of the mean value function to higher temperatures would lead to an overestimation of the log $g$ values. For this purpose, a function was also fitted to this, which is adjacent to the previously determined function for low temperatures. The function determined does not correspond exactly to the curve of the evolutionary track, which serves as a reference point. This is also not desired as a smooth curve and a good transition are preferred and is given by

$$\log g = \frac{h}{1 + \exp(i \cdot T_{\mathrm{eff}})} + \left( \frac{1}{T_{\mathrm{eff}} - 10000} \cdot k \right)^{15} \cdot l \tag{4.7}$$

with $h$ = 6.96, $i$ = -2.95·10$^{-05}$, $k$ = 24250, and $l$ = 1.25. The error range is uniformly set to ± 0.15 cm s$^{-2}$. The resulting function agrees with the expectations for the position of hot subdwarfs in the Kiel diagram. Therefore, it is a theoretically modelled prediction based on the common observation of the properties of these stars. log $g$ values were determined in the fit process only by this method and no values from *Gaia* or the literature were used. The sensitivity of the SED fits to changes in log $g$ is very low, which is why log $g$ cannot be reliably determined by the fits. This means that a coarser determination of the log $g$ values than with this method, such as a fixed value over a larger temperature range, would also lead to promising results. A Table of starting values is in the Appendices A.3.

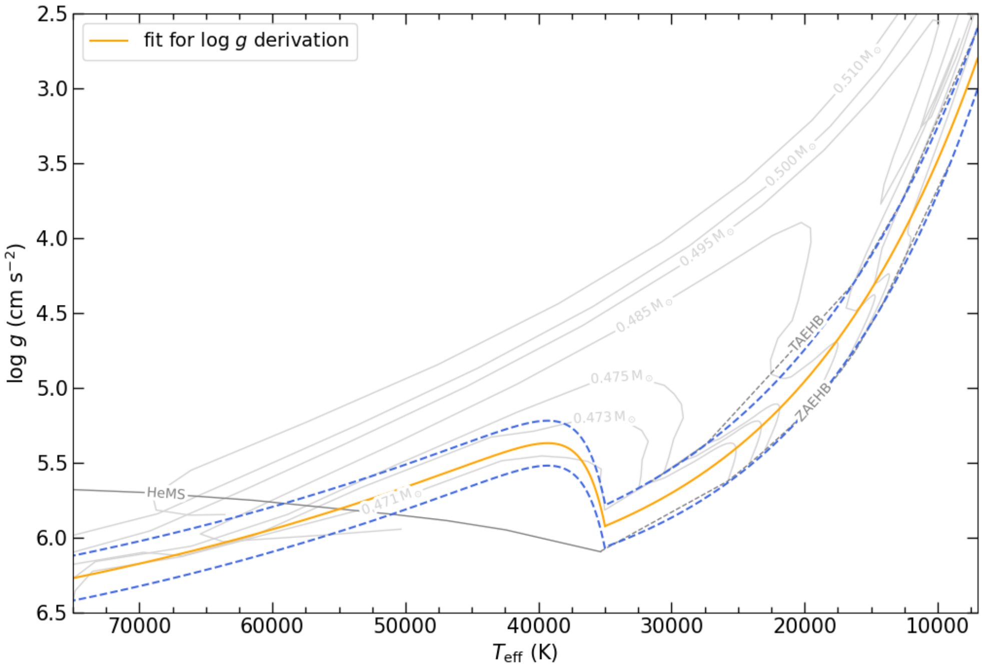



**Figure 4.2.** Kiel diagram with plotted helium main sequence (HeMS; Paczyński 1971) and EHB (ZA/TA-EHB; Dorman et al. 1993). The orange curve shows the selected initial values for the surface gravity log $g$ as a function of the effective temperature $T_{\rm eff}$. It was chosen according to the assumption of an EHB star. The blue dashed lines mark the selected error range of the log $g$, which corresponds to the fits to the ZA/TA-EHB for temperatures below 35000 K and was set uniformly to $\pm$ 0.15 cm s$^{-2}$ for temperatures above 35000 K.

The parameters were adjusted several times during the fit process until a stable value for the effective temperature dependent on the associated surface gravity was achieved. $T_{\rm eff}$ was fitted freely, whereas log $g$ was fixed and adjusted to the temperature value. This ideally required two iteration processes, but had to be repeated several times if the model grid was changed. As the given model grids cover a defined range of values, a temperature value running towards the limit of the model grid must be increased or decreased manually so that a model grid above or below the temperature range is used in the automated fit process. In this case, the starting values differ from the final SED iterated values. This iterative procedure ensures that a wide temperature range is covered by the fits and that the best fit is found.

As with surface gravity, the helium abundance can not be derived from the SED fits. If literature values were available, these were used. Otherwise, the helium abundance was set to the solar value of log $n({\rm He})/n({\rm H})$ = -1. Similarly, the metallicity was also set to the solar value 0. Furthermore, adjustments were made to the interstellar reddening $E$(44-55), as some stars showed a high redshift. In the course of this, the parameter $E$(44-55) was set to the highest of the map values given in the literature if the SED-derived value exceeded these.

The results are presented and discussed in the concluding section.

# Chapter 5

# Photometric analysis

This chapter presents the analysis of individual hot subdwarf stars with an example for each spectral classification, sdB, sdOB, and sdO, for a single star and a binary system, respectively. The sample is subdivided based on the temperature values. Stars with effective temperatures below 20000 K are classified as BHB stars, those with temperatures between 20000 K and 30000 K as sdB stars, stars in the range 30000 K $\leq T_{\rm eff} <$ 40000 K as sdOB stars and objects with higher temperatures as sdO stars.

The methods presented in Chapter 4 are used for the analysis. Photometry is required for the derivation of the angular diameter $\Theta$. For this, the apparent magnitudes from the ultraviolet to the infrared are combined to construct the observed spectral energy distribution which is scaled using $\chi^2$ minimisation as discussed in Section 4.1. The fit parameters are the angular diameter $\Theta$ and the monochromatic colour excess $E(44\text{-}55)$. The stellar radius $R$ is given by the combined *Gaia* parallax $\varpi$ and the best-fit angular diameter $\Theta = 2R\varpi$. The stellar mass $M$ is determined with the set surface gravity log $g$ from the Kiel diagram (see Section 4.2), and the stellar luminosity $L$ is based on the SED-derived effective temperature.

Contamination by BHB stars and WDs was noticeable in the analysis. These are also considered at the end of this Chapter, as the properties provide a comparison with hot subdwarfs. The selection criteria for the classification as a WD is also explained.

## 5.1 Single hot subdwarfs

Figure 5.1 shows six selected SED fits that show extensive coverage with photometric data from the UV to the IR range. Although examples with good data coverage are presented here, it is important to emphasise that the availability of photometric data is considerably poorer for many objects in the sample.

The grey line presents the smoothed final synthetic spectrum, which is compared to the photometric data explained by the following. Black data points labelled "box" are binned fluxes from an IUE spectrum marked with a magenta line. 3 IUE spectra, for example, are used to construct the box filters for HD269696. Black points marked by small dots as for EC04369-4616 are fluxes constructed from *Gaia* DR3 XP spectra. Filter-averaged fluxes are depicted as coloured data points converted from observed magnitudes. The dashed horizontal lines indicate filter widths. Residual panels at the bottom and the right side show the differences between synthetic and observed magnitudes or colours.

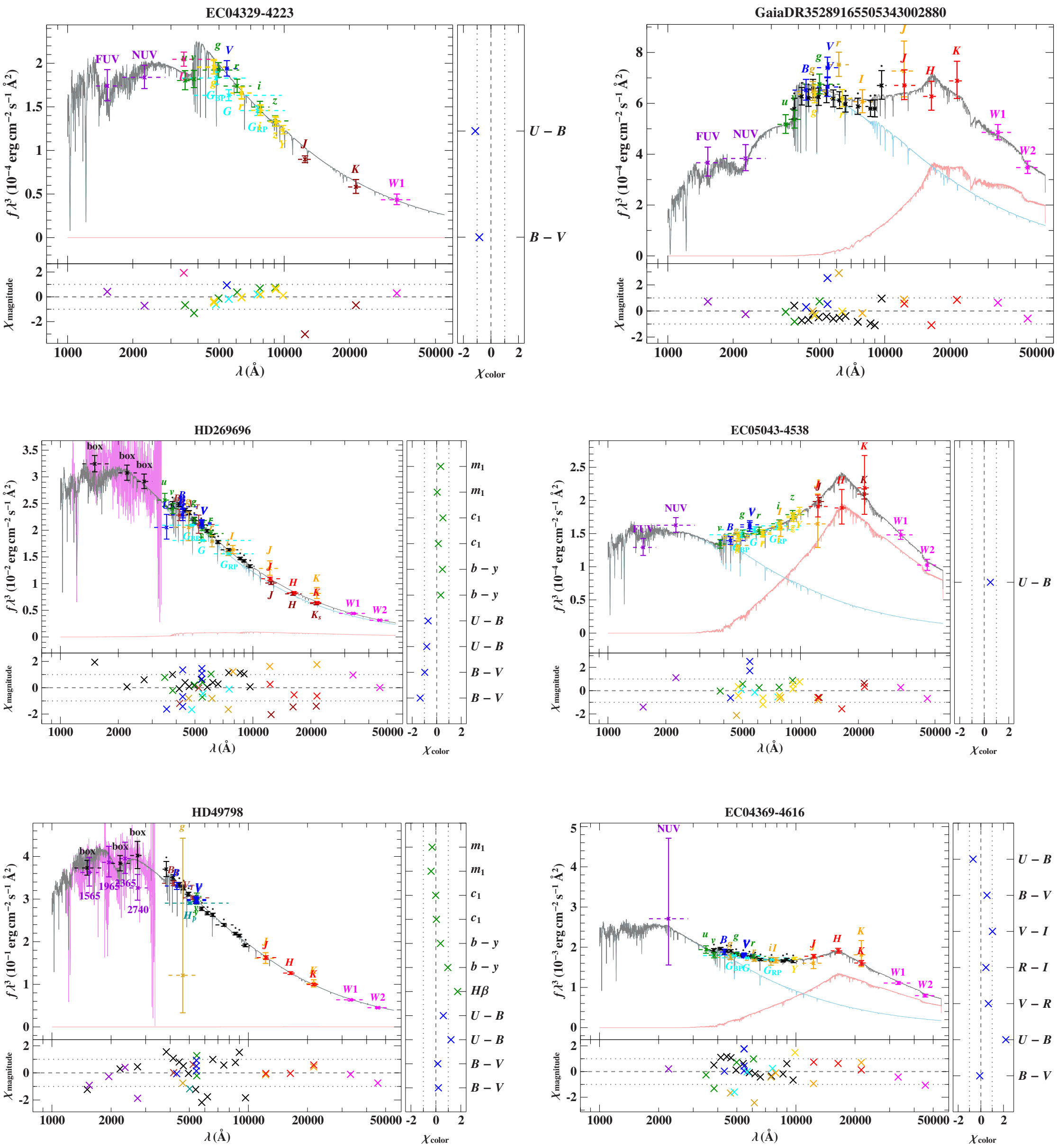



**Figure 5.1.** Examples of good SED fits for six selected objects in the *Plato* field sample. For **left column** single stars and **right column** binary systems an SED fit of the spectral classification **top row** sdO, **middle row** sdOB, and **bottom row** sdB is shown, respectively. The flux $f$ (multiplied by $\lambda^3$) is plotted against the wavelength $\lambda$. The modelled SED is shown in grey, while the photometric data used for the fit is shown in colour. In addition, the deviation of the photometric data from the modelled SED is depicted in the panels at the bottom and right of the fits. All SED fits shown benefit from good coverage across the entire spectral range from UV to IR. For binaries, the modelled SED is composed of the components of the hot subdwarf star (light blue) and the main sequence companion (red). To recognise the companion, good coverage of the IR range with photometric data must be provided.

Colour codes to identify photometric systems have been used such as cyan for *Gaia* (Gaia Collaboration et al. 2018; Riello et al. 2021), magenta for WISE (Schlafly et al. 2019), yellow for SDSS (Alam et al. 2015), dark red for VISTA (McMahon et al. 2013), or orange for 2MASS (Cutri et al. 2003). The SED fits have also benefited from the new Skymapper DR4 (Onken et al. 2024), marked in green as for EC04329-4223, as the Skymapper telescope is located in Australia and measures the southern hemisphere. A list of the photometric sky surveys used can be found in Appendix B of (Culpan et al. 2024).

In Figure 5.2, left column, from sdB to sdO a decrease of the Balmer jump is noticeable, which is attributed to the different chemical composition between the spectral classes. A strong Balmer series of hydrogen, is typical for sdBs. The Balmer jump is a distinctive feature at about 3650 Åwhere the intensity suddenly drops for shorter wavelengths caused by electrons being ionized from the second level of hydrogen leading to continuum opacity at wavelengths shorter than the minimum ionization energy. For very hot stars with $T_{\text{eff}} > 40000$ K, the Balmer discontinuity almost vanishes since there are barely neutral hydrogen atoms in the atmosphere as nearly all hydrogen is ionized.

## 5.2 Binary systems

An F/G/K star as a companion is clearly visible in the SED fit due to the presence of two maxima, which enables a clear identification of binary star systems. In the right column of Figure 5.1, which shows SED-identified binary systems, two maxima are visible for all modelled SED shown in grey. The contribution of the hotter component (the sd) is shown in light blue while the MS companion is shown in red. The surface ratio $A_{comp}/A_{sd}$ is a free fit parameter and the threshold for being a binary was set to $\geq 3$ for the investigations.
The depiction emphasises that the hot sub-dwarf stars predominantly dominate in the UV range of the spectrum, whereas the companion is in the IR range. The availability of photometric data in the IR range is therefore crucial for the discovery of the companion star. However, coverage with UV data is also relevant in order to be able to make predictions for the hot subdwarf star, which in such systems is limited by the UV range available from only a few sky surveys. In Figure 5.1 all binary fits are covered with data from UV to IR.

## 5.3 Blue Horizontal Branch stars

The first indication for a BHB star is an effective temperatures below 20000 K, colder than the range of hot subdwarfs. In Figure 5.2 SED fits vor BHB stars, a single and a binary star, is shown. The binary system GaiaDR35501929045495259392 benefits from good coverage across the entire spectral range from UV to IR, while no UV data is available for the single star EC04300-5341. To recognise the companion of GaiaDR35501929045495259392, good coverage of the IR range with photometric data is provided. Comparing their properties with hot subdwarfs provides indications for the development of stellar models.

## 5.4 White Dwarfs

Based on the SED method, some objects were classified as white dwarfs if their radius was smaller than 0.03 $R_{\odot}$. Since white dwarfs do not belong to the HB, the presented determination of the initial parameters leads to a significant underestimation of their surface gravity. The log $g$ values of these were set in the SED fits to the highest value of the model grids of 7, for the hot_sdO grid to 6.6, and iterated again. In further considerations, the stars identified as white dwarfs were marked and not explicitly excluded.

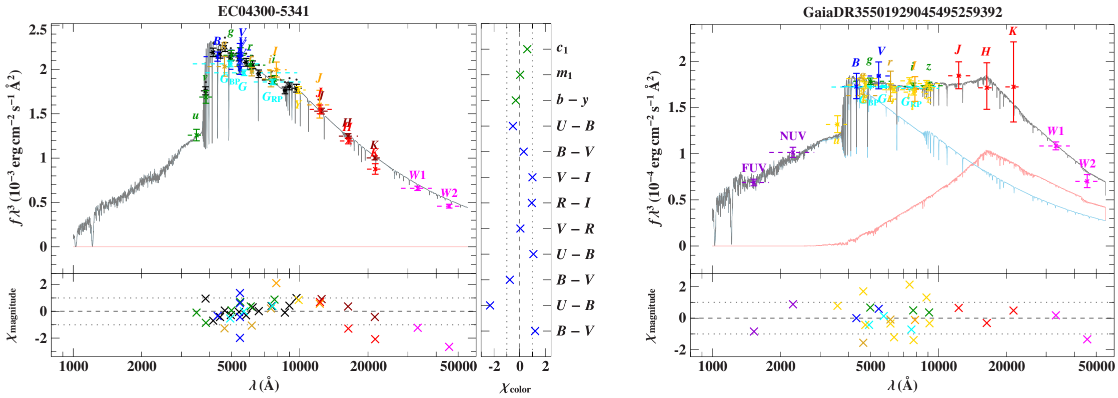



**Figure 5.2.** Examples of good SED fits for BHB **left** single stars and **right** binaries. The flux $f$ (multiplied by $\lambda^3$) is plotted against the wavelength $\lambda$. The modelled SED is shown in grey, while the photometric data used for the fit is shown in colour. The deviation of the photometric data from the modelled SED is depicted in the panels at the bottom and right of the fits. The contribution of the hotter component (the BHB) is shown in light blue while the companion is shown in red.

# Chapter 6

# Results

The aim of the investigations is to conduct a comprehensive analysis of hot subdwarf stars within the *Plato* field. Findings on the distribution of atmospheric and stellar parameters for hot subdwarf stars are presented and discussed in detail in the last part of this thesis.

## 6.1 Sky and colour-magnitude diagram

In Figure 6.1 the position of the stars from the SED fitting procedure in Galactic coordinates of the *Plato* field are considered. The various spectral classes determined by the final effective temperature of the SED fits defined in Chapter 5 are presented. While there is no discernible tendency in the distribution of spectral classes, the population of stars increases overall towards the Galactic disc, which is expected. In the spatial distribution, an over-density at the LMC is not clearly recognisable, which is attributed to the sample being clarified of LMC objects (see Section 3.3).

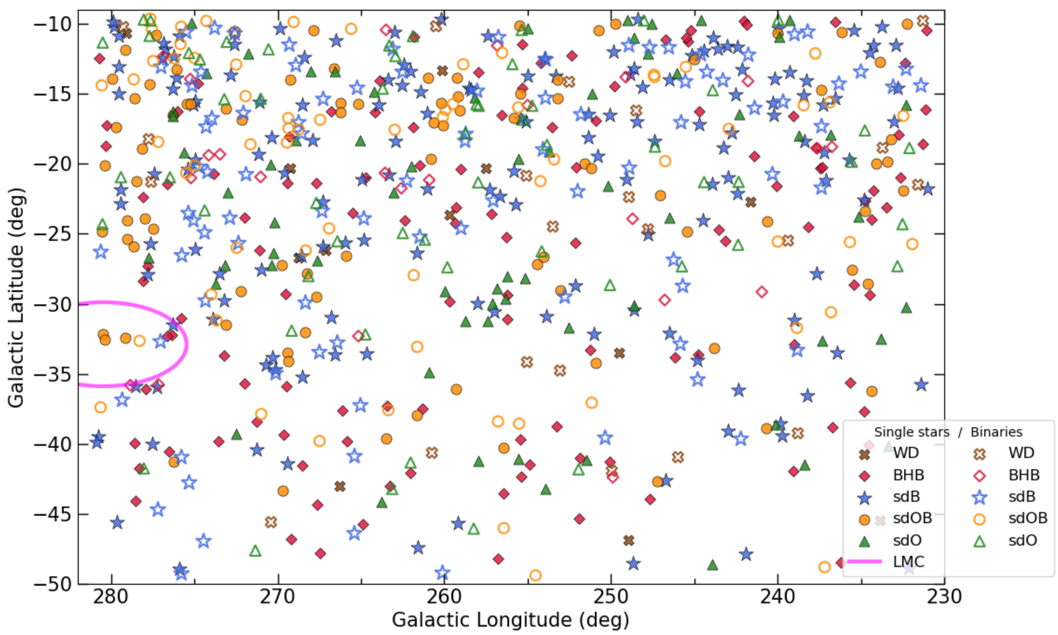



**Figure 6.1.** SED-fitted objects with respect to their spectral classification in a Galactic coordinate system. WDs are marked with a brown cross, BHBs are shown as red diamond, sdBs as blue stars, sdOBs as orange circles, and sdOs as green triangles, colour-filled for single stars and white-filled for binaries, respectively. The position of the Large Magellanic Cloud (LMC) is marked with a magenta semi-ellipse.

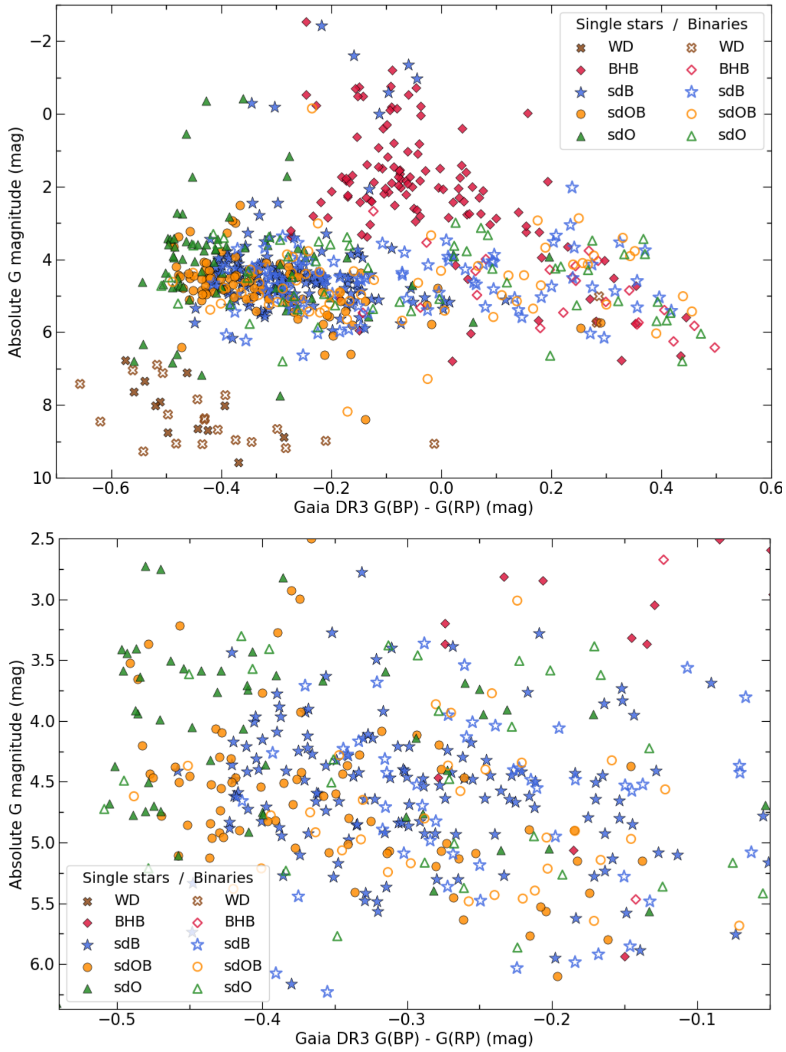



**Figure 6.2.** CMD of SED-fitted objects with respect to their spectral classification. **Top** Full colour and magnitude range to depict all SED-fitted stars and **bottom** close-up of the accumulated region. WDs are marked with a brown cross, BHBs are shown as red diamond, sdBs as blue stars, sdOBs as orange circles, and sdOs as green triangles, colour-filled for single stars and white-filled for binaries, respectively.

For the colour-magnitude diagram (CMD) of the *Plato* field's sample, the absolute magnitude of stars determined from the apparent magnitude and distance data (see Section 3.3) as well as observed colours were used (see Figure 6.2). In Figure 6.2, top panel, BHB stars and WDs are located at their characteristic position, as the BHB objects are above the subdwarfs on the horizontal branch and the WDs coincide with the WD sequence location. Furthermore, a correspondence of the expectations for hot subdwarfs is also recognisable as these are located in the EHB area between the BHBs and the WD sequence. In addition, the hotter sdOs are predominantly located further to the left followed by sdOBs and sdBs further to the right, which is consistent with the expectation for stars of this temperature (6.2, top and bottom panel). The colour can be understood as an indicator of the temperature, for example in the context of creating a physical HRD, according to which hotter and therefore bluer objects are located further to the left in the diagram.

## 6.2 Binary identification

The SED fits enable the identification of binary star systems that are composed of a hot subdwarf and a star of spectral class F, G, or K. For this analysis, all fits are performed under the assumption that such a binary star system exists. If the contribution of the companion star to the spectral energy distribution is not significant, the surface ratio becomes very small or zero. In this work, all stars with a surface ratio greater than 3 were classified as binaries. Some companion stars of these binaries showed a temperature of 2300 K corresponding to the lower limit of the Phoenix_late_type_stars model grid. These binary systems were excluded from all further analyses, resulting in 642 objects in the sample.

The SED fitting procedure led to 201 binary systems, which corresponds to 31.3 %. As seen in Figure 6.3, the observed fraction of binary SED hot subdwarfs depends on the spectral class of the hot subdwarf star. The sdOB and sdO populations have similar fractions of binaries, 38.7 % and 43,7 %, suggesting that they undergo similar evolutionary stages. The binary fraction of BHBs and WDs differs significantly from those of hot subdwarf stars confirming their different nature.

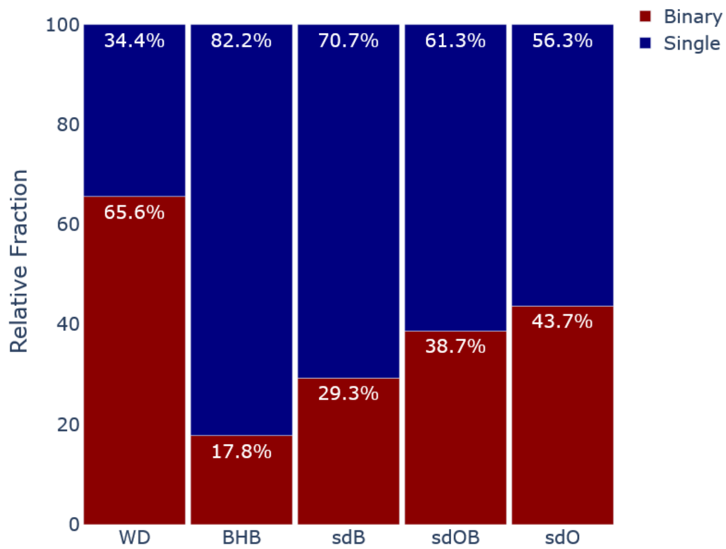



**Figure 6.3.** Fraction of detected single (red) and binary SEDs (blue) for the WD, BHB, sdB, sdOB, and sdO stars.

## 6.3 Effective temperature

The resulting effective temperatures are now presented and categorised in terms of their feasibility. The SED fits enable the determination of effective temperatures for the entire sample. The accuracy of these values is largely dependent on the quality and coverage of the available photometric data. Figure 6.4 shows the determined effective temperatures $T_{\mathrm{eff}}$ of the stars in the form of a histogram. As the determination of $T_{\mathrm{eff}}$ at high temperatures is associated with increasing uncertainties, the temperatures are shown on a logarithmic scale.

Two groups of stars can be recognised in the histogram (see Figure 6.4, left panel), as a significant number of stars have temperatures between 20000 and 45000 K, while another group forms at temperatures below 15000 K. Two peaks are visible in the distribution, one at 30000 K and another at about 10000 K. The group of hotter stars corresponds to the hot subdwarf stars, while the cooler stars represent BHB or main sequence stars. This confirms the assumption that BHB stars are also included. It also refers to the gap between the BHB and the hot subdwarf stars, where fewer objects are found. Another concentration is at temperatures of 115000 K, which corresponds to the upper limit of the hottest model grid, which suggests that $T_{\mathrm{eff}}$ is undefined for these objects.

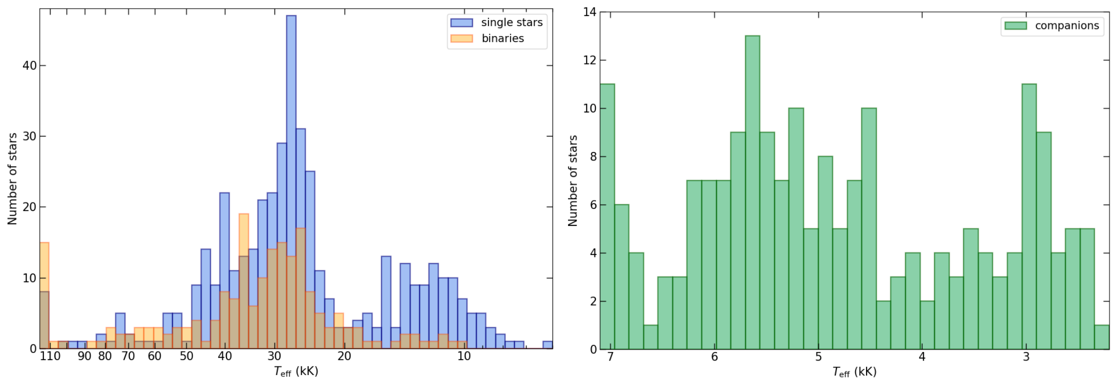



**Figure 6.4.** Histogram of the SED-determined effective temperatures for **left** all stars divided into single stars marked in orange and binary systems in blue and **right** for the companions stars of spectral classes F, G and K.

In Figure 6.4, right panel, is a clear contribution of K-type companions in the distribution of companion $T_{\rm eff}$. The distribution between 4000 K and 7000 K is bi-modal, with peaks in the early K- and late F-type ranges. The observed lack of G-type companions is unlikely to be caused by selection effects and can not be explained by any model. Furthermore, a excess of M-type companions around 3000 K is visible. This can also occur if $T_{\rm eff}$ of the hot subdwarf is overestimated. Hence, the $T_{\rm eff}$ of the companion may be underestimated and the companion is more likely to be a K-type star. The accumulation at 7000 K cannot be attributed to any physical explanation and is based on the upper fit limit. Summarised, SED-derived companions to hot subdwarfs are dominated by F-type and K-type stars on the main sequence and there is an unexplainable lack of G-type companions.

**Consistency check** Figure 6.5 shows the effective temperatures $T_{\rm eff}$ derived from the SED fits plotted against the starting values or against the deviation from starting values. Some initial values can be reproduced within a tolerance of 60%. Especially at lower temperatures up to 20000 K most of the derived values correspond to the starting values. This confidence interval is highlighted in grey in the diagram.
However, many stars deviate significantly from the starting value, particulary at high temperatures, as many objects obtain a significantly higher SED-value than the starting value. This can be attributed both to inaccuracies in the temperature values of *Gaia* and to a lack of photometric information. Furthermore, this can also be due to an increase in redshift towards higher temperatures. It is also noticeable that single stars deviate less better than binaries, as the companions temperature may not have been accurately estimated in binary fits.

## 6.4 Parallaxes

In Figure 6.6 the position of the stars from the SED fitting procedure in Galactic coordinates of the *Plato* field are considered. The parallax error is shown on the colour axis. Note that the parallax errors of the stars increases overall towards the Galactic disc, which is expected. In the spatial distribution, an increase of the parallax error in the region of the LMC can be recognised, which is also attributed to the increasing imprecision of parallax measurements regions of high apparent stellar density.

Due to the selection criteria (see Section 3.2.3), only good parallax measurements with an error of less than 20 % were considered. the distribution of parallaxes (see Figure 6.7, left panel) peaks at 0.5 mas, with minimum 0.1 mas and maximum 5 mas, which corresponds to most values having a parallax error of about 10 %. The peak of the single stars is slightly shifted towards higher parallax values with respect to the peak for binaries, although the shift is not significant

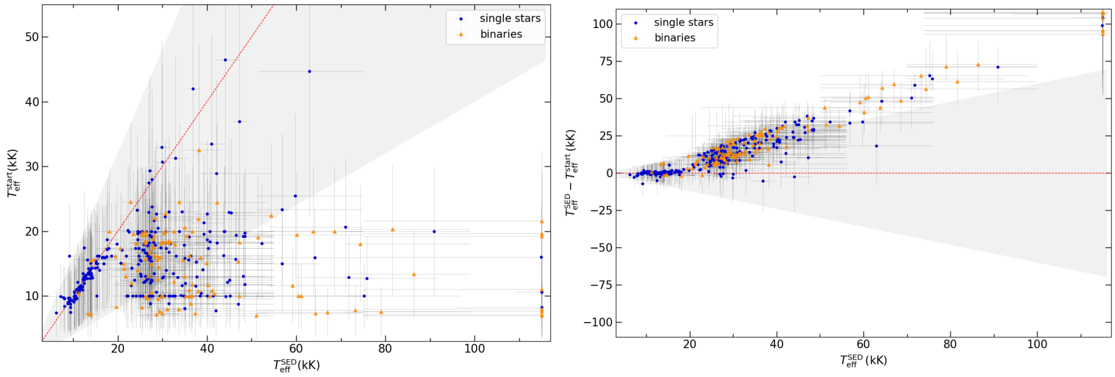



**Figure 6.5.** Determined effective temperatures against their starting values and against their respective deviation from the starting values. Single stars are shown in blue and binaries as orange triangles. A confidence interval, which marks a deviation of 60% between the start value and the determined value, is highlighted in grey.

enough to derive conclusions.

Also in Figure 6.7, top panel, an accumulation around a parallax of 0.5 mas is present. Around 0.2 mas a smaller accumulation at a temperature of about 13000 K can be seen. Thus, parallax measurements of stars with smaller temperatures show higher parallax errors.

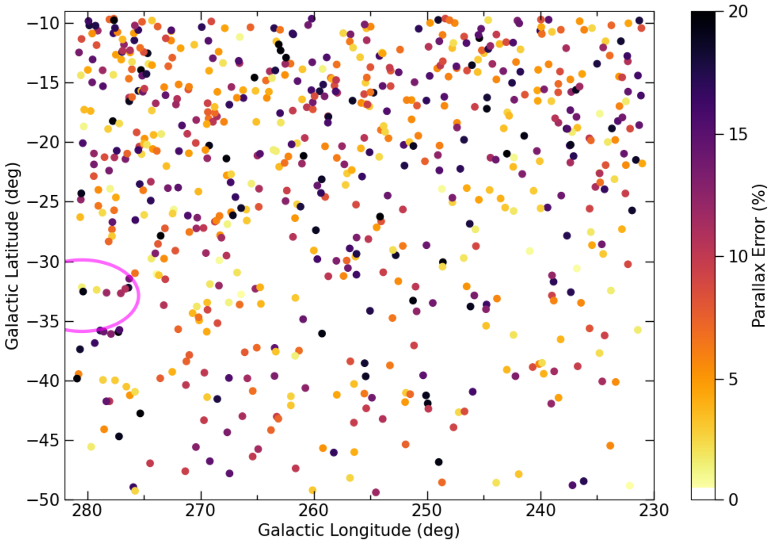
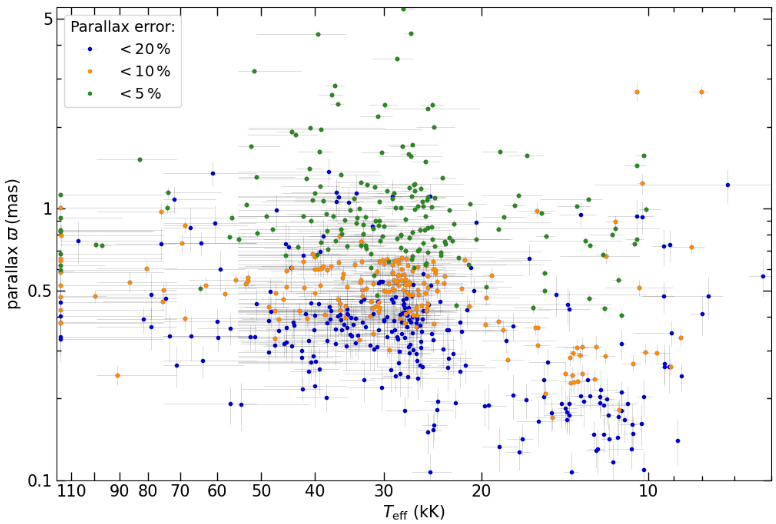



**Figure 6.6.** SED-fitted objects in a Galactic coordinate system. The parallax error is plotted on the colour axis. The position of the Large Magellanic Cloud (LMC) is marked with a magenta semi-ellipse.

## 6.5 Angular diameter

Figure 6.8 shows the distribution of the angular diameter $\log\Theta$, whereby the peak of single stars is shifted to lower $\log\Theta$ compared to that for binaries. SED-derived $\log\Theta$ are used during the SED fitting procedure to determine the stellar radii via the relation discussed in 4.1.2.



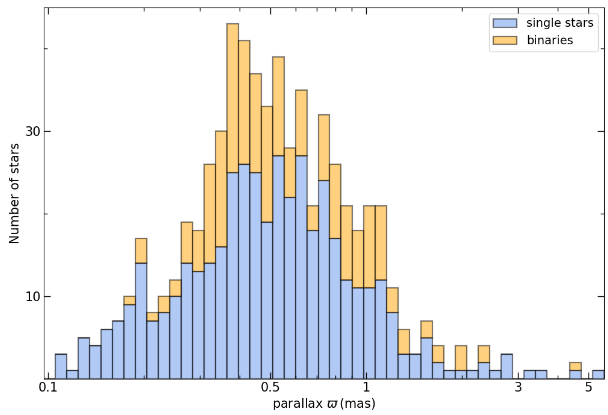




**Figure 6.7.** **Top** Parallax $\varpi$ over the effective temperature $T_{\mathrm{eff}}$ with parallax error $< 20\,\%$ in blue, $< 10\,\%$ orange, and $< 5\,\%$ green are shown. **Left** Distribution of SED-derived parallaxes for single stars in orange and binaries in blue.

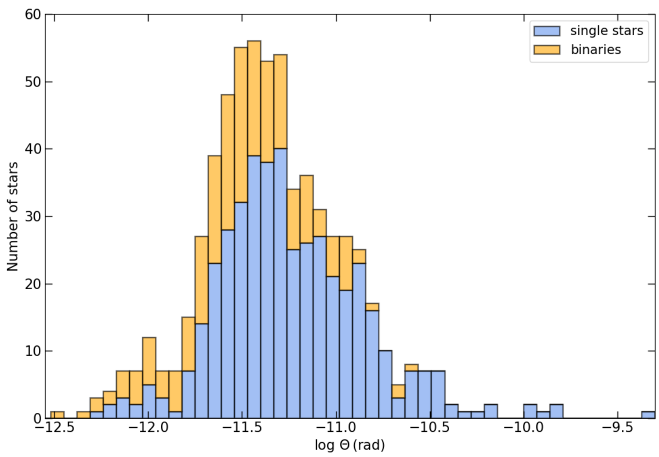
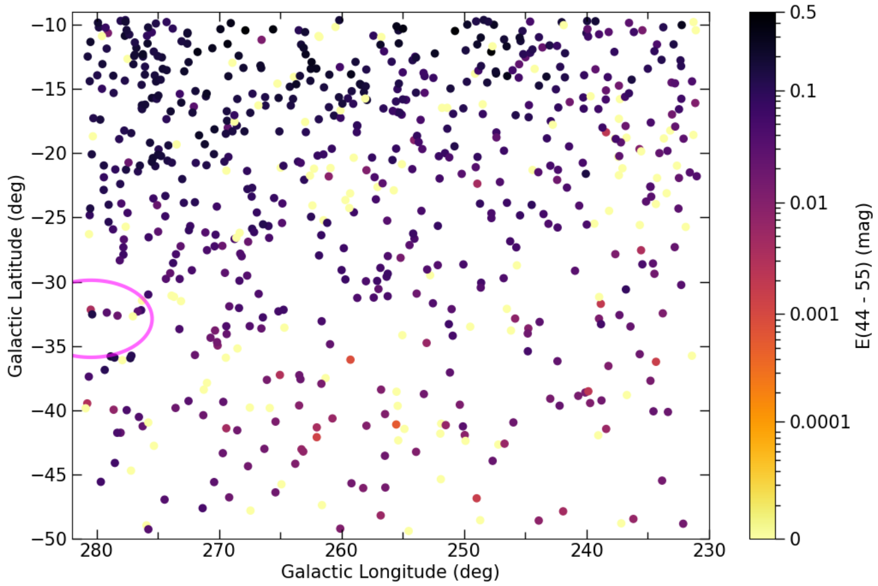



**Figure 6.8.** Distribution of the SED-derived angular diameter $\log\Theta$ for single stars in orange and binaries in blue.

## 6.6 Reddening

In Figure 6.9, left panel, the reddening distribution peaks around 0.1 mag, from which can be concluded with the Figure 6.9, top panel, that most stars in the *Plato* field are located near the Galactic disk. Thus the population increases in number and in the reddening value towards the Galactic disk. With values up to 0.5 mag the reddening of many objects is comparably high, due to interstellar extinction by dust and grains of the dense populated *Plato* field. An increase in reddening in the region of the LMC can not be confirmed by the available data.



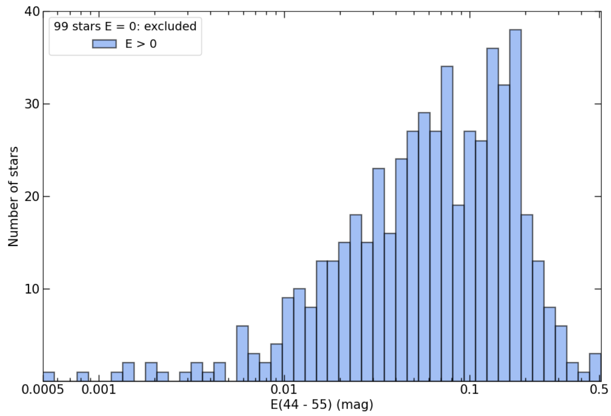




**Figure 6.9. Top** SED-fitted objects in a Galactic coordinate system. The reddening parameter $E$(44-55) is plotted on the colour axis. The position of the Large Magellanic Cloud (LMC) is marked with a magenta semi-ellipse. **Left** Distribution of the SED-derived reddening parameter $E(44\text{-}55) > 0$.

## 6.7 Kiel diagram

We can not construct a Kiel diagram, because we assumed that the surface gravity log $g$ follows theoretical predictions. However, we could assume that all subdwarfs have canonical mass and calculate their surface gravities using Newton's law. That is replacing one assumption by another one. In this way, the Kiel diagram shown in Figure 4.2 has been constructed.

The log $g$ were calculated using the canonical mass of 0.47 $M_\odot$ and SED radius $R_{\text{SED}}$ determined as

$$\log g = \log(0.47 \cdot M_\odot) + log(G) - 2 \cdot \log(R_{\text{SED}} \cdot R_\odot) \tag{6.1}$$

with $G$ the gravitational constant. All WDs with log $g$ set to 7.0 or 6.6 were therefore explicitly excluded. The calculated log $g$ are also listed in the Appendices A.4 and A.5.

In addition to the values determined, Figure 6.10 also shows several evolutionary tracks that form a basis for categorising the results:

- **Zero-Age and Turnoff-Age EHB:** Zero-Age EHB (ZAEHB) defines the evolutionary stage of an EHB star, which still has all its helium available in its core and describes newly formed hot subdwarfs. The Turnoff-Age EHB (TAEHB) marks the point when a hot subdwarf star has completely burnt up the helium in its core and shell burning begins. A hot subdwarf star spends most of its life in the region from ZAEHB to TAEHB (Dorman et al. 1993).

- **He-MS:** Here are pure helium stars that have no hydrogen shell (Paczyński 1971).

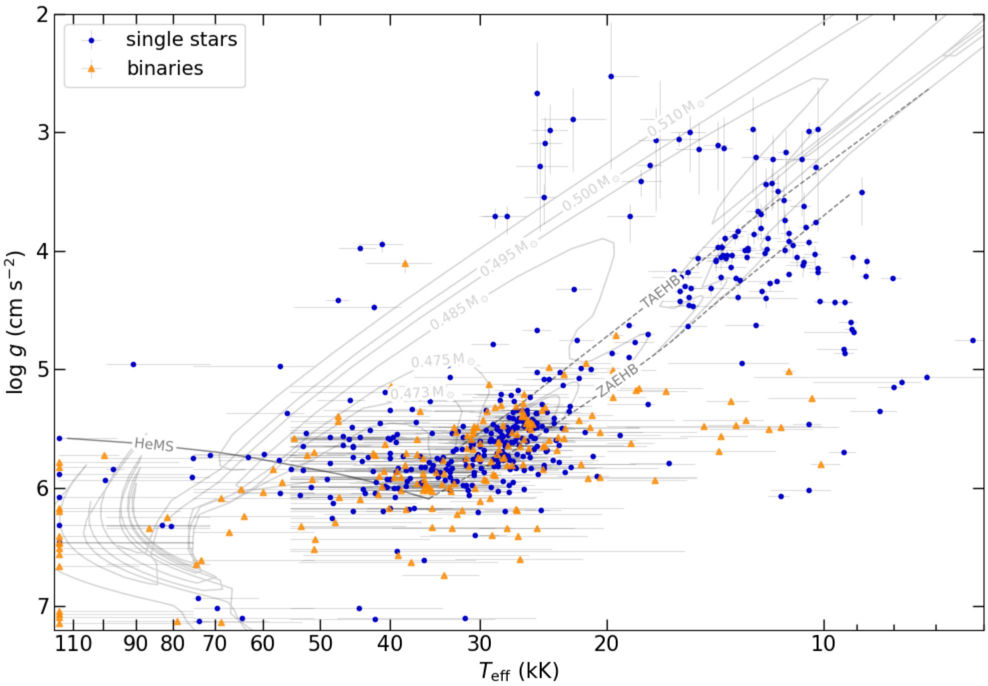



**Figure 6.10.** Kiel diagram, surface gravity log $g$ over the effective temperature $T_{\text{eff}}$, of SED stars without WDs. Single stars are shown in blue and binaries as orange triangles. In addition, zero-age EHB, turnoff-age EHB and evolutionary tracks for stars of different masses from (Dorman et al. 1993) are plotted together with the helium main sequence (HeMS) from (Paczyński 1971).

- **Dorman Tracks:** These describe the evolutionary tracks for EHB stars of different masses (Dorman et al. 1993). The objects form later evolutionary stages of hot subdwarf stars.

The stars located on the EHB at temperatures below 20000 K are stars of the blue horizontal branch. It is also noteworthy that the transition region between the first cluster of hot subdwarf stars at about 25000 K and the BHB stars has significantly fewer stars. This is consistent with studies from previous work (see Dorsch 2023), which describe that a gap forms between the EHB and the BHB. The cooler stars, which are located below the BHBs at $T_{\text{eff}}$ near 10000 K, logg =4.5 are most likely main sequence stars.

# Chapter 7

# Fundamental stellar parameters

Above all, stellar parameters can help to verify and refine evolutionary models of hot subdwarf stars. The distribution of the parameters is the most important information for refining the models.

## 7.1 Luminosities

Figure 7.1 shows the physical HRD, where the stellar luminosity in solar units $L/L_\odot$ is plotted over the effective temperature $T_\mathrm{eff}$. Stars in a variety of evolutionary stages are included and since some very luminous stars are included, the main sequence and post-AGB tracks have also been added. The majority of stars at $T_\mathrm{eff} < 40000$ K are located on the EHB band (Dorman et al. 1993), while others have evolved beyond it. Many are also located above the EHB, as it is crossed by stars evolving towards and away from the EHB (Dorman et al. 1993).

Multiple hot and luminous stars lie on post-AGB tracks (Miller Bertolami 2016), which are marked in red. The two post-AGB tracks for a mass of 0.546 $M_\odot$ and 0.565 $M_\odot$ each were chosen to cover the range of post-AGB candidates.

Several stars are placed below the EHB and given that these lie close to or below the 0.35 $M_\odot$ zero-age EHB of Han et al. (2003), they are good candidates for bright pre-ELM or very low-mass EHB stars. In addition, main sequence evolution models of various masses have been included (Hidalgo et al. 2018), whereby the post-main sequence phase was cut off.

The distribution of luminosities is shown in Figure 7.3 and can be used to confirm and quantify the substructures in the HRD. In terms of luminosity, two groups are formed, one at luminosities around 20 $L_\odot$ and a second at significantly higher luminosities around 120 $L_\odot$. Dorsch (2023) finds a similar distribution and assigns the lower luminosities to sdB and sdO stars, while the higher luminosities can clearly be assigned to He-sdO stars. Overall, binary stars appear to be more luminous than single ones.

In Figure 7.4 the luminosity distribution of the spectral classes is depicted. sdO stars are the most luminous, followed by sdOBs and BHBs for single stars, whereas BHBs in binaries are less luminous than sdBs.

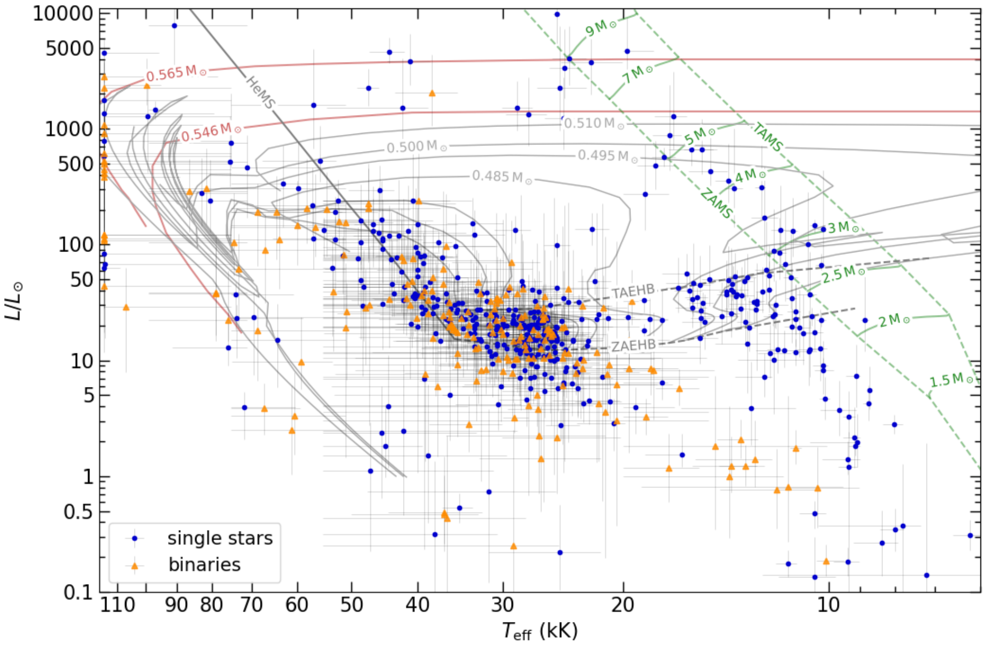
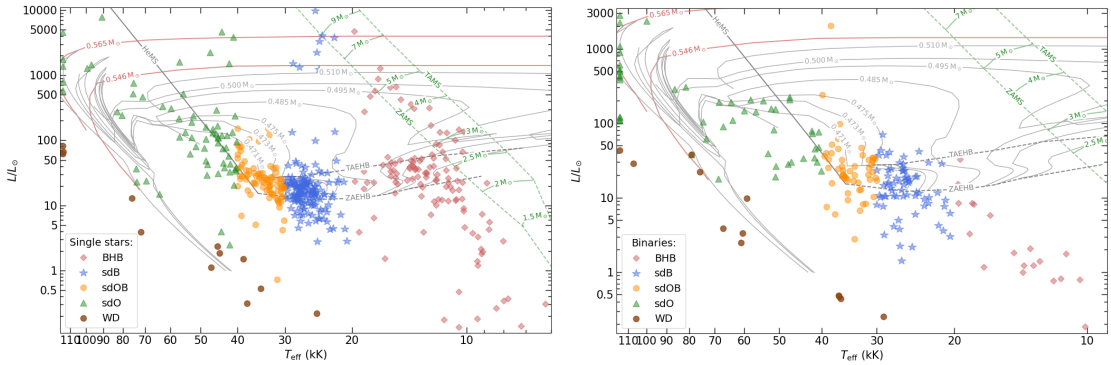
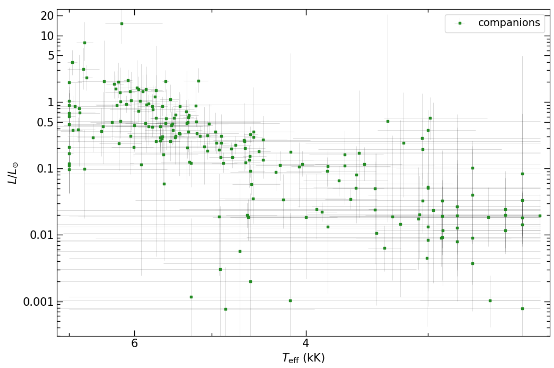



**Figure 7.1.** The physical HRD, luminosity $L$ over effective temperature $T_{\mathrm{eff}}$, of SED-determined stars in the *Plato* field. Single stars are shown in blue and binaries as orange triangles. In addition, zero-age EHB, turnoff-age EHB and evolutionary tracks for stars of different masses from Dorman et al. (1993) are plotted together with the helium main sequence (HeMS) from Paczyński (1971). Post-AGB tracks from Miller Bertolami (2016) shown in red and main sequence evolution models of various masses from Hidalgo et al. (2018) in green have been included.




(a) (b)




(c)

**Figure 7.2.** Physical HRD of (**a**) single stars and (**b**) binaries dependent on the spectral classification. Same evolutionary tracks as in Figure 7.1 are included. Physical HRD of (**c**) companion stars.

All parameters can be found in the Appendices A.4 and A.5.

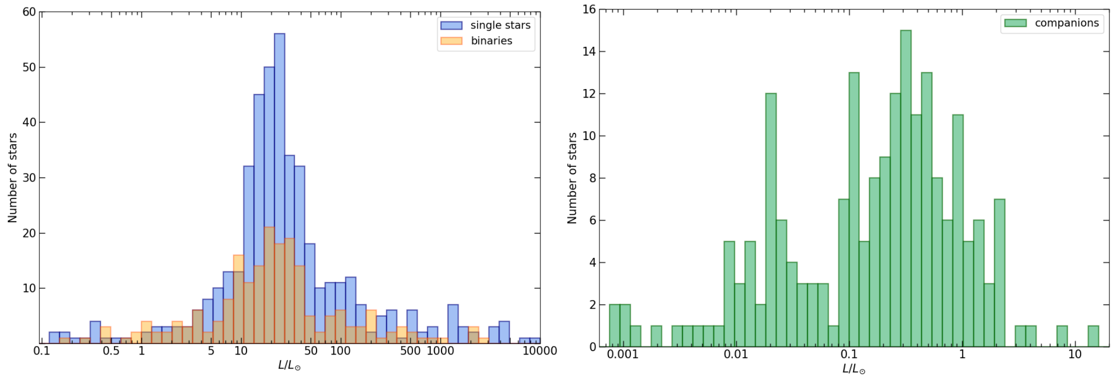



**Figure 7.3.** Luminosity distribution of **left** all SED-derived stars divided into single stars marked in blue and binary systems in orange and of **right** companion stars. $L > \sim 200\, L_\odot$ correspond to post-AGB and MS stars.

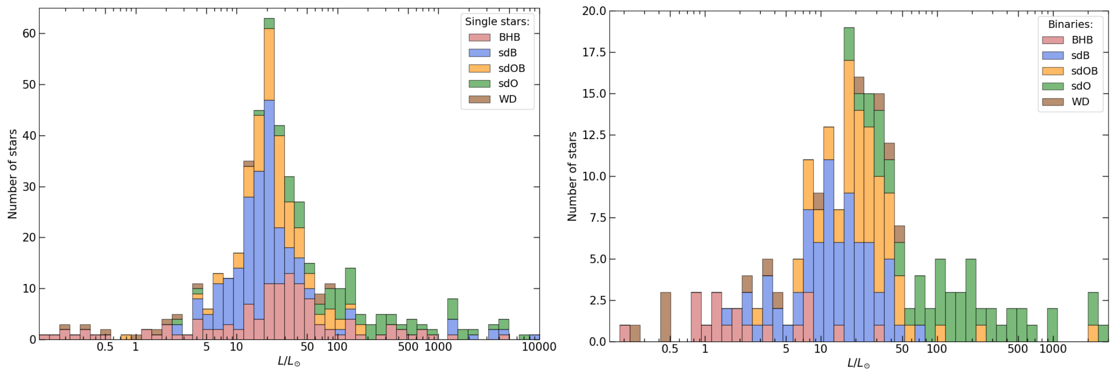



**Figure 7.4.** Luminosity distribution of **left** single stars and of **right** primaries of binary systems divided into spectral classes. $L > \sim 200\, L_\odot$ correspond to post-AGB and MS stars.

## 7.2 Radii

Figure 7.5 shows the derived radii in relation to the effective temperature. For a better classification of the results, the same evolutionary tracks as in the physical HRD (Figure 7.1) were used. Some of the objects can be clearly assigned to the EHB, while others have evolved beyond it. The positions of these evolved stars can be comprehended using the evolutionary tracks from Dorman et al. (1993).

The distribution of the radii is not defined by a single peak, which is not unexpected as they form the EHB band, rather than scatter around a particular radius (see Figure 7.7, left panel). Most of the stars investigated have radii around $0.2\, R_\odot$ (see Figure 7.7, left panel, and Figure 7.8), which is characteristic for hot subdwarf stars. Larger radii can be assigned to BHB stars, which can be clearly seen in Figure 7.8, right panel, as a peak of BHBs around $1\, R_\odot$. The radii of the companions are in a range from roughly $0.2\, R_\odot$ to $2\, R_\odot$ with a peak around $0.7\, R_\odot$ and are thus typical for low mass MS stars (see Figure 7.7, right panel).

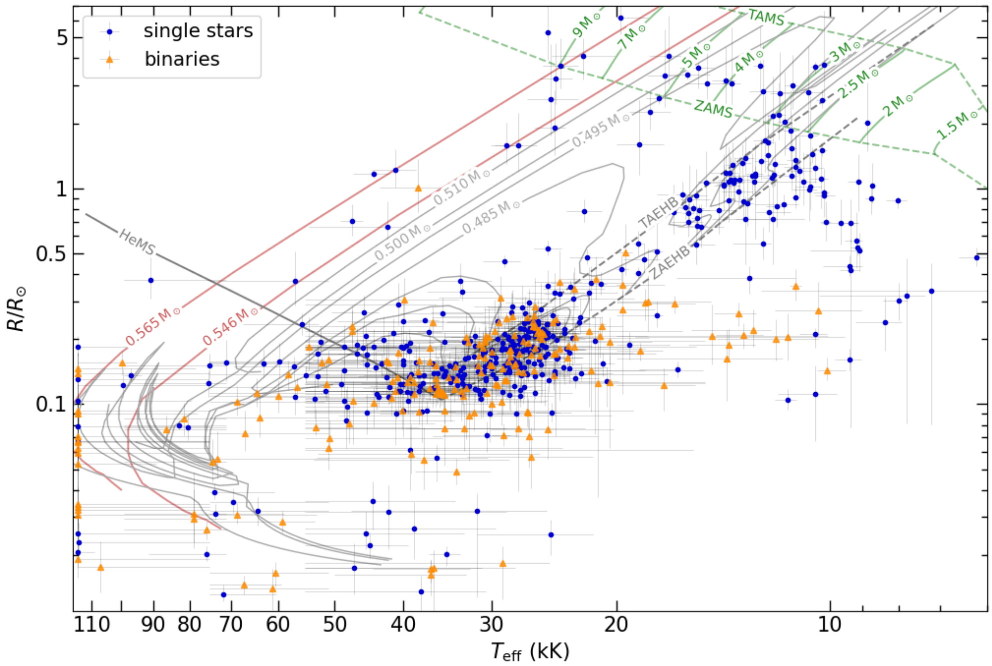
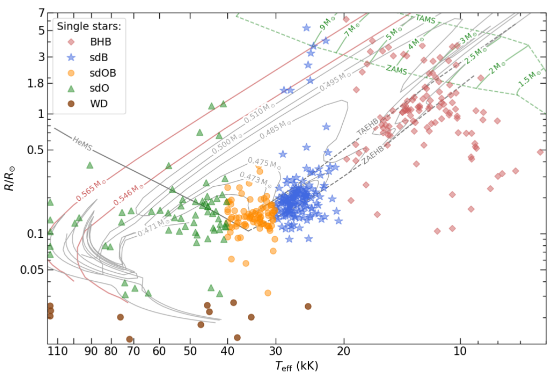
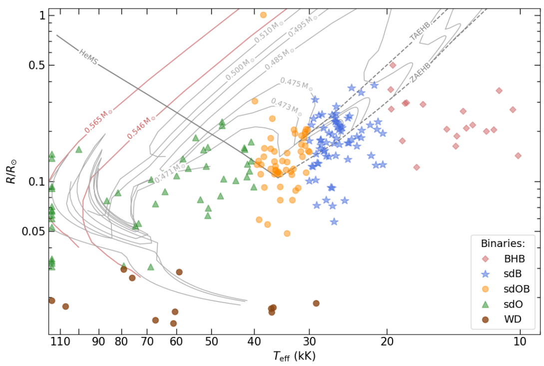


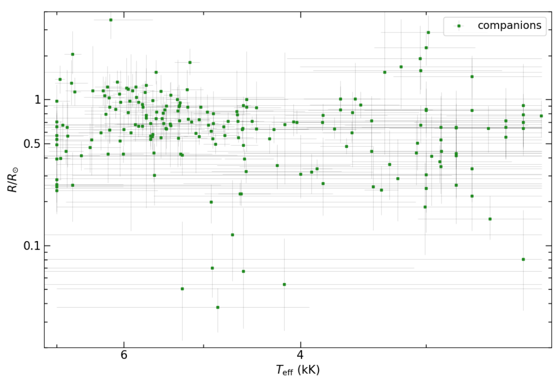

**Figure 7.5.** Radii $R$ determined using the SED fits plotted against the effective temperature $T_{\text{eff}}$. Single stars are shown in blue and binaries as orange triangles. In addition, zero-age EHB, turnoff-age EHB and evolutionary tracks for stars of different masses from Dorman et al. (1993) are plotted together with the helium main sequence (HeMS) from Paczyński (1971). Post-AGB tracks from Miller Bertolami (2016) shown in red and main sequence evolution models of various masses from Hidalgo et al. (2018) in green have been included.




(a)




(b)




(c)

**Figure 7.6.** $R/R_{\odot}$ over $T_{\text{eff}}$ for **(a)** single stars and **(b)** binaries dependent on the spectral classification. Same evolutionary tracks as in Figure 7.5 are included. Physical HRD of **(c)** companion stars.

All parameters can be found in the Appendices A.4 and A.5.

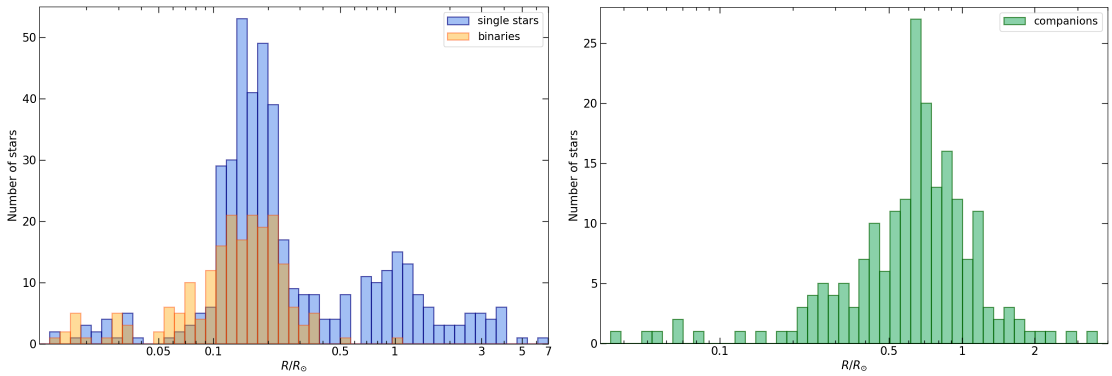



**Figure 7.7.** Radius distribution of **left** all SED-derived stars divided into single stars marked in blue and binary systems in orange and of **right** companion stars. $R > \sim 2\,R_\odot$ correspond to post-AGB and MS stars.

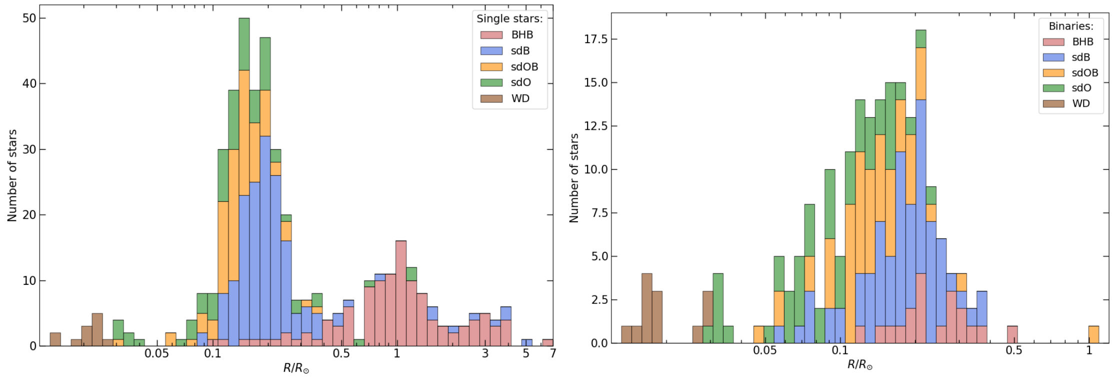



**Figure 7.8.** Radius distribution of **left** single stars and of **right** primaries of binary systems divided into spectral classes. $R > \sim 2\,R_\odot$ correspond to post-AGB and MS stars.

## 7.3 Luminosity over radius

Both in the $R/R_\odot$-$T_{\mathrm{eff}}$ diagram and in the physical HRD, some candidates fit well with the main sequence, hence a $L/L_\odot$-$R/R_\odot$ diagram was used to confirm whether they are the same objects (see Figure 7.9), which is indeed the case. The same applies to objects located on the post-AGB tracks. These stars can therefore be assigned to the main sequence or the post-AGB. This is roughly the case for stars with $L > \sim 200\,L_\odot$ and $R > \sim 2\,R_\odot$, which corresponds to expectations (Dorsch 2023).

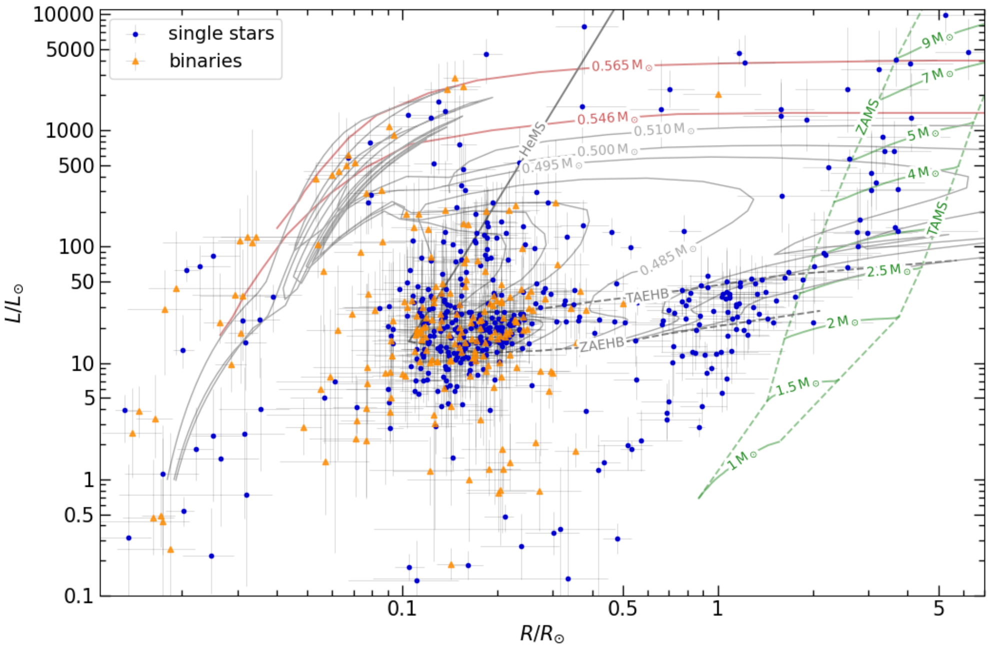



**Figure 7.9.** $L/L_{\odot}$-$R/R_{\odot}$ diagram. Single stars are shown in blue and binaries as orange triangles. In addition, zero-age EHB, turnoff-age EHB and evolutionary tracks for stars of different masses from Dorman et al. (1993) are plotted together with the helium main sequence (HeMS) from Paczyński (1971). Post-AGB tracks from Miller Bertolami (2016) shown in red and main sequence evolution models of various masses from Hidalgo et al. (2018) in green have been included.

# Chapter 8

# Summary and outlook

The closing chapter 8 summarizes the key findings of the work and reflects on their significance. It was the aim of this thesis to provide an overview of the properties of hot subdwarfs as a significant step towards understanding their complex formation and evolution. Therefore, the population of the *Plato* field was studied considering several parameters.For this purpose, a sample of hot subdwarf stars was identified for the investigations by matching them with catalogs of blue stars. Subsequently, spectral energy distributions (SEDs), from the UV to the infrared, combined with *Gaia* parallaxes were performed, which provided fundamental stellar parameters as well as characterized the population of F/G/K-type companions to hot subdwarfs. First, the findings from these analyses are briefly summarized before concluding with an outlook on the significance of these results.

With the help of data from the *Gaia* mission, in particular its parallax measurements, but also numerous photometric sky surveys, various atmospheric and stellar parameters could be determined that describe the properties of the hot dwarf stars.

In the analyses conducted, atmospheric and stellar parameters for hot subdwarf stars were determined that are in good agreement with expectations. These have temperatures in the range of 20000 to 75000 Kelvin, although some show significantly higher values, and surface gravities between 2.5 and 7.0. The distribution in the determined Kiel diagram fulfills the expected properties. The results indicate that some of the hot stars are evolved sdB stars consistent with evolutionary models. The detected radii and luminosities represent reliable values and allow the construction of a $T_{\text{eff}}$-$R$ and a physical Hertzsprung-Russell diagram. Both show that the observed parameters fit well with those of stellar evolution models.

In the sample investigated, a proportion of 31.3% could be identified as binary star systems, each consisting of a hot subdwarf star and a companion star of various spectral types.
For F-, G-, or K-type companions, these can be assigned to the formation channel of the Roche lobe overflow scenario.

Despite good models that can explain the properties of hot subdwarfs, the description of the gap between BHB and hot subdwarf stars and the characterization of companion stars in binary systems still present a challenge. These are due to gaps in the formation models themselves and the findings from this work, in connection with results from similar studies, can contribute to the further development of these models.

The SED analysis for a well-known sample of hot subdwarf stars, thus the *Plato* field, can be used to refine the calibration of large photometric surveys by deriving systematic differences between the predicted and observed magnitudes, as the SED fitting procedure is quick and can be applied to many types of stars.

With the results from this work, follow-up spectroscopy should be performed for the SED-identified systems, which would not only provide measurements of their metallicity but also allow their orbits to be solved. A spectroscopic analysis would not only provide more reliable surface gravity measurements and thus improve the mass determination, but also improve the identification of structure in the distribution of hot subdwarfs in the HRD. Furthermore, spectral information makes it possible to refine and iterate the previously created SED fits, as this analysis also allows the determination of parameters such as helium abundance or surface gravity, which are difficult to derive from SEDs and spectroscopic fits to binary systems that consider both components would provide more reliable parameters to improve characterisation of binary systems.

Future missions, will provide more accurate measurements of, for example, parallax distances, allowing us to unravel the complex mechanism behind the formation of hot subdwarf stars. Hence, future data releases are eagerly awaited. These could be, for example, *Gaia* DR4 or even DR5.

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# A Appendices

## A.1 ADQL Queries

For the selection of stars in the *Plato* field:

```
SELECT *
FROM gaiadr3.gaia_source
WHERE parallax > 0
AND parallax_over_error > 5
AND l >= 230.9375 AND l <= 280.9375
AND b >= -49.62432 AND b<= -9.63432
AND bp_rp >= -0.7 AND bp_rp <= 0.7
AND phot_g_mean_mag < 19.5
```

The following ADQL call was used to find matching objects between *Plato* field stars and catalogues, here, for example, the "J/A+A/635/A193/sdcatdr2" (Geier 2020):

```
SELECT b.Name, a.ra, a.dec
FROM TAP_UPLOAD.t1 AS a
JOIN "J/A+A/635/A193/sdcatdr2" AS b ON 1=CONTAINS (
POINT('ICRS', a.ra, a.dec),
CIRCLE('ICRS', b.RAJ2000, b.DEJ2000, 2./3600.))
```

## A.2 Sample objects

**Table A.1:** Listed are *Gaia*-measured values of the 91 "discovery"-sample objects not contained in catalogues and remained from the selection criteria.

| Gaia ID | l [deg] | b [deg] | ra [deg] | dec [deg] | parallax $\varpi$ [mas] | $G_{\mathrm{BP-RP}}$ [mag] |
|---|---|---|---|---|---|---|
| Gaia DR3 4658102352859230592 | 279.68 | -32.84 | 81.35 | -69.12 | $1.04 \pm 0.21$ | 0.20 |
| Gaia DR3 4658061086801249024 | 280.28 | -32.69 | 81.55 | -69.64 | $0.70 \pm 0.11$ | 0.05 |
| Gaia DR3 4658109705845780352 | 279.54 | -32.76 | 81.65 | -69.01 | $0.79 \pm 0.16$ | -0.07 |
| Gaia DR3 4658066786264171264 | 280.19 | -32.81 | 81.22 | -69.54 | $0.63 \pm 0.13$ | -0.17 |
| Gaia DR3 4658069333105404928 | 280.12 | -32.70 | 81.58 | -69.50 | $0.52 \pm 0.09$ | -0.13 |
| Gaia DR3 4794595107763895424 | 255.91 | -30.20 | 87.06 | -48.92 | $4.75 \pm 0.07$ | -0.04 |
| Gaia DR3 5302787900363378560 | 274.95 | -10.74 | 129.36 | -59.00 | $0.70 \pm 0.07$ | 0.31 |
| Gaia DR3 4656373061498155520 | 279.79 | -36.99 | 70.29 | -68.13 | $0.81 \pm 0.15$ | -0.07 |
| Gaia DR3 5607863417418996224 | 241.19 | -11.44 | 105.19 | -30.23 | $0.93 \pm 0.15$ | 0.27 |
| Gaia DR3 5283272810223911040 | 276.75 | -28.00 | 94.59 | -66.82 | $1.01 \pm 0.02$ | 0.19 |
| Gaia DR3 4660351781818929536 | 276.25 | -32.87 | 82.38 | -66.26 | $2.13 \pm 0.38$ | -0.26 |
| Gaia DR3 4660357107572605056 | 276.06 | -32.64 | 82.98 | -66.13 | $0.93 \pm 0.18$ | -0.23 |
| Gaia DR3 4660205409304717952 | 277.28 | -32.63 | 82.73 | -67.15 | $0.95 \pm 0.19$ | 0.03 |
| Gaia DR3 4660208639119567232 | 277.14 | -32.71 | 82.54 | -67.02 | $0.53 \pm 0.08$ | 0.06 |
| Gaia DR3 4660167269978700288 | 277.07 | -32.61 | 82.82 | -66.98 | $0.55 \pm 0.10$ | 0.04 |
| Gaia DR3 4660167304370632576 | 277.07 | -32.61 | 82.83 | -66.97 | $1.11 \pm 0.17$ | -0.46 |
| Gaia DR3 4660167682327766912 | 277.05 | -32.61 | 82.83 | -66.96 | $0.87 \pm 0.05$ | 0.37 |
| Gaia DR3 4660216370082348288 | 276.96 | -32.64 | 82.79 | -66.88 | $1.16 \pm 0.13$ | -0.21 |
| Gaia DR3 5580229559184884224 | 245.35 | -18.84 | 98.85 | -36.78 | $6.17 \pm 0.05$ | -0.15 |
| Gaia DR3 5281669481739336064 | 277.81 | -25.12 | 102.26 | -67.39 | $0.93 \pm 0.03$ | -0.27 |
| Gaia DR3 4723481341379972608 | 277.86 | -49.56 | 46.72 | -60.45 | $0.85 \pm 0.06$ | 0.47 |
| Gaia DR3 5485337518110016768 | 264.94 | -21.61 | 103.50 | -55.09 | $1.30 \pm 0.25$ | 0.17 |
| Gaia DR3 4655234036223606784 | 280.43 | -34.68 | 75.90 | -69.32 | $0.45 \pm 0.08$ | -0.03 |
| Gaia DR3 4655256159664618368 | 280.60 | -34.85 | 75.35 | -69.42 | $0.61 \pm 0.10$ | 0.07 |
| Gaia DR3 4655258122406874496 | 280.65 | -34.94 | 75.05 | -69.43 | $1.00 \pm 0.19$ | 0.07 |
| Gaia DR3 4655287839225512192 | 280.26 | -35.01 | 75.13 | -69.11 | $1.10 \pm 0.20$ | 0.17 |
| Gaia DR3 4655274580687840000 | 280.45 | -35.16 | 74.61 | -69.22 | $0.47 \pm 0.09$ | -0.04 |
| Gaia DR3 4655294436429848192 | 280.15 | -35.01 | 75.20 | -69.02 | $0.51 \pm 0.09$ | 0.21 |
| Gaia DR3 4655361407741765888 | 280.82 | -35.33 | 73.90 | -69.45 | $0.67 \pm 0.13$ | -0.05 |
| Gaia DR3 5274516711926094592 | 279.47 | -17.66 | 121.59 | -66.39 | $1.13 \pm 0.02$ | -0.20 |
| Gaia DR3 4655172257405150976 | 280.90 | -35.19 | 74.22 | -69.56 | $1.04 \pm 0.20$ | 0.09 |
| Gaia DR3 2910369418589572352 | 232.87 | -21.16 | 91.49 | -26.59 | $0.81 \pm 0.06$ | 0.54 |
| Gaia DR3 2926897758418561408 | 231.27 | -10.63 | 101.43 | -21.06 | $0.61 \pm 0.10$ | 0.23 |

| | | | | | | |
|---|---|---|---|---|---|---|
| Gaia DR3 2926505095324552704 | 231.71 | -12.95 | 99.36 | -22.42 | $0.53 \pm 0.11$ | 0.39 |
| Gaia DR3 5285720735412715648 | 274.57 | -21.40 | 109.17 | -63.58 | $0.77 \pm 0.08$ | 0.34 |
| Gaia DR3 4658949526515671296 | 277.13 | -33.83 | 79.71 | -66.85 | $0.56 \pm 0.11$ | -0.04 |
| Gaia DR3 4659021819367281024 | 278.78 | -29.86 | 89.80 | -68.64 | $0.58 \pm 0.11$ | 0.00 |
| Gaia DR3 4660603776115281280 | 275.75 | -33.78 | 80.30 | -65.72 | $1.11 \pm 0.20$ | 0.02 |
| Gaia DR3 2899147184438839808 | 234.56 | -17.01 | 96.47 | -26.56 | $0.83 \pm 0.07$ | 0.30 |
| Gaia DR3 5319976123253041536 | 269.07 | -12.24 | 121.28 | -54.98 | $6.21 \pm 0.02$ | 0.36 |
| Gaia DR3 4657398837145371264 | 280.23 | -30.57 | 87.64 | -69.86 | $1.63 \pm 0.27$ | -0.19 |
| Gaia DR3 4659469664237535104 | 277.37 | -31.56 | 85.45 | -67.33 | $0.74 \pm 0.14$ | 0.19 |
| Gaia DR3 4659433792668176768 | 277.41 | -31.00 | 86.90 | -67.41 | $0.64 \pm 0.12$ | 0.10 |
| Gaia DR3 5297652326362985216 | 279.61 | -12.66 | 131.79 | -63.81 | $4.78 \pm 0.05$ | -0.04 |
| Gaia DR3 5298354532035438976 | 278.89 | -10.08 | 135.24 | -61.65 | $0.51 \pm 0.04$ | -0.04 |
| Gaia DR3 4661514373610914048 | 279.56 | -35.50 | 74.27 | -68.42 | $0.59 \pm 0.11$ | -0.10 |
| Gaia DR3 4661560832243244032 | 279.12 | -35.67 | 74.09 | -68.02 | $0.73 \pm 0.13$ | 0.06 |
| Gaia DR3 4661534821941795584 | 279.37 | -35.72 | 73.80 | -68.21 | $0.83 \pm 0.15$ | 0.03 |
| Gaia DR3 4661572823816428800 | 278.73 | -35.75 | 74.11 | -67.70 | $0.74 \pm 0.13$ | -0.08 |
| Gaia DR3 4661572926895649408 | 278.73 | -35.75 | 74.12 | -67.70 | $1.16 \pm 0.16$ | -0.04 |
| Gaia DR3 4661714179774157568 | 277.92 | -35.85 | 74.34 | -67.04 | $1.47 \pm 0.21$ | -0.25 |
| Gaia DR3 4661672501406726912 | 278.50 | -35.84 | 74.04 | -67.50 | $0.41 \pm 0.08$ | -0.12 |
| Gaia DR3 4661580004989691520 | 279.41 | -35.96 | 73.18 | -68.17 | $0.49 \pm 0.08$ | 0.18 |
| Gaia DR3 4661727854956773376 | 278.27 | -35.97 | 73.85 | -67.28 | $1.46 \pm 0.22$ | -0.14 |
| Gaia DR3 2885882538724709376 | 242.31 | -23.42 | 92.34 | -35.58 | $2.36 \pm 0.02$ | 0.38 |
| Gaia DR3 4657781638995114624 | 279.11 | -31.57 | 85.06 | -68.81 | $0.70 \pm 0.14$ | 0.25 |
| Gaia DR3 4657685534828093696 | 279.45 | -31.67 | 84.68 | -69.09 | $1.04 \pm 0.20$ | 0.19 |
| Gaia DR3 4657686325102027648 | 279.44 | -31.69 | 84.64 | -69.08 | $1.12 \pm 0.19$ | -0.06 |
| Gaia DR3 4661282587158848896 | 279.55 | -34.66 | 76.48 | -68.63 | $1.71 \pm 0.34$ | -0.08 |
| Gaia DR3 4661256675534386304 | 279.92 | -34.71 | 76.14 | -68.92 | $0.31 \pm 0.06$ | 0.00 |
| Gaia DR3 4661257882485853184 | 279.88 | -34.79 | 75.95 | -68.86 | $0.69 \pm 0.11$ | 0.06 |
| Gaia DR3 4661791381821701632 | 278.38 | -34.30 | 78.03 | -67.77 | $0.51 \pm 0.10$ | 0.11 |
| Gaia DR3 4662023005094224384 | 276.99 | -35.34 | 76.05 | -66.44 | $0.63 \pm 0.09$ | -0.10 |
| Gaia DR3 5494343102458989440 | 261.64 | -12.80 | 114.87 | -48.86 | $0.34 \pm 0.05$ | 0.34 |
| Gaia DR3 5510573921310835840 | 257.35 | -14.74 | 109.65 | -45.93 | $1.06 \pm 0.14$ | 0.52 |
| Gaia DR3 4657904681267553408 | 280.81 | -32.36 | 82.26 | -70.13 | $0.53 \pm 0.10$ | 0.21 |
| Gaia DR3 4657891590201972480 | 280.86 | -32.23 | 82.62 | -70.20 | $0.64 \pm 0.12$ | 0.11 |
| Gaia DR3 4657896503647132032 | 280.87 | -32.16 | 82.83 | -70.22 | $0.93 \pm 0.17$ | 0.09 |
| Gaia DR3 2921963322034050048 | 235.14 | -10.43 | 103.39 | -24.42 | $4.18 \pm 0.72$ | -0.04 |
| Gaia DR3 5300921002629293184 | 278.21 | -11.49 | 132.02 | -62.02 | $0.57 \pm 0.10$ | 0.42 |
| Gaia DR3 4658522636847570432 | 278.87 | -32.81 | 81.75 | -68.45 | $0.78 \pm 0.13$ | 0.00 |
| Gaia DR3 4657967727142844928 | 280.45 | -32.76 | 81.26 | -69.77 | $0.58 \pm 0.11$ | 0.23 |
| Gaia DR3 4657971747251421184 | 280.63 | -32.86 | 80.91 | -69.89 | $0.84 \pm 0.14$ | -0.09 |

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|---|---|---|---|---|---|---|
| Gaia DR3 4657961164446320512 | 280.64 | -32.78 | 81.13 | -69.92 | $0.54 \pm 0.10$ | 0.12 |
| Gaia DR3 4657963329069990656 | 280.52 | -32.63 | 81.60 | -69.85 | $0.66 \pm 0.13$ | 0.16 |
| Gaia DR3 4658016797087504384 | 280.26 | -32.39 | 82.41 | -69.67 | $0.82 \pm 0.14$ | 0.12 |
| Gaia DR3 4658021538730215040 | 280.13 | -32.54 | 82.01 | -69.54 | $0.49 \pm 0.08$ | -0.04 |
| Gaia DR3 4657597299012092416 | 280.10 | -31.34 | 85.45 | -69.67 | $0.96 \pm 0.17$ | -0.18 |
| Gaia DR3 4657669931230549376 | 279.61 | -31.90 | 84.00 | -69.20 | $0.77 \pm 0.10$ | 0.11 |
| Gaia DR3 4662245690566460672 | 276.29 | -35.90 | 75.04 | -65.75 | $0.51 \pm 0.09$ | -0.35 |
| Gaia DR3 2919373765985124736 | 236.97 | -11.69 | 102.96 | -26.58 | $1.23 \pm 0.05$ | -0.25 |
| Gaia DR3 4658134685336587136 | 280.83 | -33.32 | 79.49 | -69.97 | $0.80 \pm 0.16$ | 0.17 |
| Gaia DR3 4658182376675740544 | 280.36 | -33.43 | 79.42 | -69.57 | $0.72 \pm 0.13$ | 0.17 |
| Gaia DR3 4658157053480806528 | 280.54 | -33.48 | 79.18 | -69.70 | $0.46 \pm 0.06$ | -0.12 |
| Gaia DR3 4658157912473894272 | 280.47 | -33.53 | 79.07 | -69.63 | $0.38 \pm 0.07$ | 0.05 |
| Gaia DR3 4658186220648860032 | 280.14 | -33.52 | 79.28 | -69.37 | $0.76 \pm 0.13$ | -0.07 |
| Gaia DR3 4658187221397303040 | 280.24 | -33.58 | 79.06 | -69.44 | $1.09 \pm 0.20$ | -0.02 |
| Gaia DR3 4658194162011870464 | 279.94 | -33.45 | 79.55 | -69.22 | $0.88 \pm 0.12$ | -0.14 |
| Gaia DR3 4658199419109448448 | 279.84 | -33.66 | 79.04 | -69.09 | $0.91 \pm 0.14$ | -0.14 |
| Gaia DR3 2892633608838499712 | 240.28 | -20.26 | 95.22 | -32.78 | $0.74 \pm 0.04$ | 0.39 |
| Gaia DR3 2922663676581681152 | 234.00 | -9.87 | 103.42 | -23.16 | $0.51 \pm 0.03$ | 0.29 |

## A.3 SED start values

**Table A.2:** Starting values used for the SED fitting procedure are listed with the initial values $T_{\text{eff}}^{\text{start}}$ and log $g^{\text{start}}$, as well as SED-derived final values $T_{\text{eff}}$ and log $g$.

| Gaia ID | name | l [deg] | b [deg] | ra [deg] | dec [deg] | G(BP-RP) [mag] | $T_{\text{eff}}^{\text{start}}$ [K] | $T_{\text{eff}}$ [K] | log $g^{\text{start}}$ [cm s$^{-2}$] | log $g$ [cm s$^{-2}$] |
|---|---|---|---|---|---|---|---|---|---|---|
| Gaia DR3 5277958148962865920 | | 276.32 | -14.68 | 124.15 | -62.29 | -0.22 | $9998 \pm 4999$ | $29442^{+5274}_{-3409}$ | $3.48 \pm 0.22$ | $5.60 \pm 0.17$ |
| Gaia DR3 5277478864971075456 | | 276.31 | -16.51 | 120.66 | -63.18 | -0.28 | $10000 \pm 5000$ | $32842^{+6776}_{-5025}$ | $3.48 \pm 0.22$ | $5.79 \pm 0.15$ |
| Gaia DR3 5277504153738526976 | | 276.30 | -16.27 | 121.12 | -63.06 | -0.25 | $18138 \pm 9069$ | $52281^{+2718}_{-5489}$ | $4.75 \pm 0.22$ | $5.73 \pm 0.15$ |
| Gaia DR3 5278096962306625536 | | 276.06 | -13.89 | 125.30 | -61.65 | -0.15 | $25000 \pm 12500$ | $25249^{+4158}_{-3885}$ | $5.39 \pm 0.19$ | $5.40 \pm 0.19$ |
| Gaia DR3 5278120361288601856 | | 276.05 | -13.27 | 126.38 | -61.31 | -0.26 | $25000 \pm 12500$ | $31152^{+4873}_{-3095}$ | $5.39 \pm 0.19$ | $5.76 \pm 0.16$ |
| Gaia DR3 5277843353077684992 | | 277.00 | -13.08 | 127.79 | -61.98 | -0.15 | $25000 \pm 12500$ | $28413^{+5254}_{-4005}$ | $5.39 \pm 0.19$ | $5.62 \pm 0.17$ |
| Gaia DR3 5572926710324060928 | | 247.77 | -25.05 | 92.13 | -40.82 | -0.33 | $25000 \pm 12500$ | $24990^{+1118}_{-1227}$ | $5.39 \pm 0.19$ | $5.36 \pm 0.19$ |
| Gaia DR3 5573125962446736384 | | 246.50 | -23.86 | 93.22 | -39.38 | -0.41 | $25000 \pm 12500$ | $42947^{+12052}_{-3619}$ | $5.39 \pm 0.19$ | $5.39 \pm 0.15$ |
| Gaia DR3 5573247900861789824 | | 248.92 | -22.37 | 95.92 | -41.08 | -0.48 | $9998 \pm 4999$ | $42772^{+8891}_{-2872}$ | $3.48 \pm 0.22$ | $5.39 \pm 0.15$ |
| Gaia DR3 5573712792418123264 | | 247.07 | -22.24 | 95.42 | -39.41 | -0.37 | $18702 \pm 9351$ | $40000^{+9589}_{-5000}$ | $4.81 \pm 0.21$ | $5.37 \pm 0.15$ |
| Gaia DR3 5576826952945841408 | | 247.36 | -18.39 | 100.22 | -38.42 | -0.31 | $25000 \pm 12500$ | $28422^{+3817}_{-3245}$ | $5.39 \pm 0.19$ | $5.57 \pm 0.18$ |
| Gaia DR3 5576266713115602816 | | 248.48 | -16.20 | 103.32 | -38.62 | -0.01 | $9582 \pm 4791$ | $28257^{+26743}_{-5112}$ | $3.39 \pm 0.22$ | $5.65 \pm 0.17$ |
| Gaia DR3 5577647154260869248 | | 245.79 | -17.04 | 101.12 | -36.54 | -0.25 | $15917 \pm 7959$ | $29447^{+2322}_{-2583}$ | $4.47 \pm 0.22$ | $5.78 \pm 0.16$ |
| Gaia DR3 5575336427496017024 | | 244.41 | -21.31 | 95.57 | -36.77 | -0.23 | $19047 \pm 9524$ | $51400^{+3600}_{-13600}$ | $4.85 \pm 0.21$ | $5.74 \pm 0.15$ |
| Gaia DR3 5576338975942083072 | | 248.47 | -16.95 | 102.42 | -38.89 | -0.31 | $25000 \pm 12500$ | $28994^{+3768}_{-2302}$ | $5.39 \pm 0.19$ | $5.53 \pm 0.18$ |
| Gaia DR3 5575406654503684736 | | 243.94 | -21.48 | 95.20 | -36.41 | -0.31 | $15564 \pm 7782$ | $24927^{+2106}_{-2263}$ | $4.42 \pm 0.22$ | $5.49 \pm 0.18$ |
| Gaia DR3 5572766039889997696 | | 247.77 | -24.67 | 92.61 | -40.72 | -0.34 | $9998 \pm 4999$ | $52066^{+2934}_{-8763}$ | $3.48 \pm 0.22$ | $5.75 \pm 0.15$ |
| Gaia DR3 4665646686160919040 | BPSCS29520-0080 | 270.99 | -37.87 | 72.88 | -61.17 | -0.27 | $9998 \pm 4999$ | $35999^{+2910}_{-2365}$ | $3.48 \pm 0.22$ | $5.89 \pm 0.14$ |

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|---|---|---|---|---|---|---|---|---|---|---|
| Gaia DR3 4665681114618938112 | 2MASSJ04464929-6115101 | 271.25 | -38.41 | 71.71 | -61.25 | 0.04 | $9223 \pm 4612$ | $9129^{+321}_{-128}$ | $3.31 \pm 0.22$ | $3.28 \pm 0.22$ |
| Gaia DR3 5318890115006124672 | | 270.55 | -11.83 | 123.21 | -56.01 | -0.05 | $25000 \pm 12500$ | $40315^{+14685}_{-9395}$ | $5.39 \pm 0.19$ | $5.37 \pm 0.15$ |
| Gaia DR3 5561959597233757056 | | 254.08 | -18.98 | 102.40 | -44.60 | -0.07 | $25000 \pm 12500$ | $25966^{+4408}_{-1965}$ | $5.39 \pm 0.19$ | $5.40 \pm 0.19$ |
| Gaia DR3 4789836284000445568 | TYC8076-1235-1 | 251.87 | -41.05 | 70.74 | -46.16 | -0.08 | $25000 \pm 12500$ | $10594^{+227}_{-76}$ | $5.39 \pm 0.19$ | $3.68 \pm 0.23$ |
| Gaia DR3 4790020933234390016 | EC04369-4616 | 251.94 | -41.82 | 69.61 | -46.18 | -0.22 | $9997 \pm 4999$ | $40653^{+3773}_{-1992}$ | $3.48 \pm 0.22$ | $5.37 \pm 0.15$ |
| Gaia DR3 4792844272935841792 | | 258.01 | -29.97 | 87.78 | -50.69 | -0.36 | $20443 \pm 10222$ | $29048^{+3147}_{-2292}$ | $5.00 \pm 0.21$ | $5.58 \pm 0.18$ |
| Gaia DR3 4790219463802822912 | EC04408-4558 | 251.50 | -41.16 | 70.58 | -45.87 | -0.54 | $25000 \pm 12500$ | $80459^{+18540}_{-9459}$ | $5.39 \pm 0.19$ | $6.34 \pm 0.15$ |
| Gaia DR3 4792952987147830656 | | 256.99 | -30.57 | 86.67 | -49.89 | -0.21 | $16206 \pm 8103$ | $21854^{+2355}_{-1940}$ | $4.51 \pm 0.22$ | $5.04 \pm 0.21$ |
| Gaia DR3 4790536187574413696 | | 249.95 | -41.94 | 69.53 | -44.69 | -0.41 | $11072 \pm 5536$ | $43746^{+11253}_{-7682}$ | $3.69 \pm 0.22$ | $5.58 \pm 0.15$ |
| Gaia DR3 4790566802101044352 | EC04403-4454 | 250.09 | -41.26 | 70.48 | -44.82 | -0.13 | $12707 \pm 6354$ | $13097^{+255}_{-262}$ | $3.98 \pm 0.22$ | $3.94 \pm 0.23$ |
| Gaia DR3 4784352882073539712 | EC04386-5049 | 257.97 | -41.21 | 69.98 | -50.73 | -0.54 | $25000 \pm 12500$ | $73776^{+1223}_{-13047}$ | $5.39 \pm 0.19$ | $6.25 \pm 0.15$ |
| Gaia DR3 5558388241731286912 | TYC7641-1741-1 | 255.09 | -17.00 | 105.48 | -44.80 | -0.34 | $25000 \pm 12500$ | $28791^{+2071}_{-1463}$ | $5.39 \pm 0.19$ | $5.58 \pm 0.18$ |
| Gaia DR3 4791280733041446272 | | 249.89 | -42.39 | 68.90 | -44.63 | 0.27 | $19993 \pm 9996$ | $18079^{+1921}_{-3340}$ | $4.95 \pm 0.21$ | $4.57 \pm 0.22$ |
| Gaia DR3 4784841099596111360 | HE0444-4945 | 256.45 | -40.30 | 71.56 | -49.67 | -0.44 | $25000 \pm 12500$ | $30551^{+2237}_{-1855}$ | $5.39 \pm 0.19$ | $5.57 \pm 0.18$ |
| Gaia DR3 4795868032991047168 | EC05411-4717 | 253.87 | -30.93 | 85.62 | -47.27 | -0.36 | $19106 \pm 9553$ | $27470^{+1645}_{-1335}$ | $4.86 \pm 0.21$ | $5.58 \pm 0.18$ |
| Gaia DR3 4793627503171687040 | EC05415-5018 | 257.38 | -31.24 | 85.69 | -50.29 | -0.47 | $25000 \pm 12500$ | $55616^{+11907}_{-2896}$ | $5.39 \pm 0.19$ | $5.81 \pm 0.15$ |
| Gaia DR3 4791548326683783168 | | 247.21 | -42.68 | 68.56 | -42.65 | -0.49 | $25000 \pm 12500$ | $39119^{+6939}_{-2832}$ | $5.39 \pm 0.19$ | $5.40 \pm 0.15$ |
| Gaia DR3 4785027741695161728 | EC04402-4900 | 255.54 | -41.11 | 70.41 | -48.92 | -0.49 | $25000 \pm 12500$ | $52784^{+2216}_{-13400}$ | $5.39 \pm 0.19$ | $5.75 \pm 0.15$ |
| Gaia DR3 4793777552149192576 | EC05415-4919 | 256.24 | -31.13 | 85.69 | -49.31 | -0.13 | $15021 \pm 7510$ | $15441^{+924}_{-889}$ | $4.34 \pm 0.22$ | $4.60 \pm 0.22$ |
| Gaia DR3 4796165966282498304 | EC05358-4616 | 252.54 | -31.68 | 84.31 | -46.25 | -0.46 | $25000 \pm 12500$ | $52814^{+2186}_{-7126}$ | $5.39 \pm 0.19$ | $5.77 \pm 0.15$ |
| Gaia DR3 4792110623802246912 | | 259.69 | -29.83 | 88.29 | -52.11 | 0.14 | $9636 \pm 4818$ | $35998^{+19001}_{-18186}$ | $3.40 \pm 0.22$ | $5.88 \pm 0.14$ |
| Gaia DR3 4788061191196841856 | | 254.87 | -41.46 | 69.95 | -48.39 | -0.09 | $10916 \pm 5458$ | $11363^{+302}_{-231}$ | $3.66 \pm 0.22$ | $3.75 \pm 0.23$ |
| Gaia DR3 4788177773788843264 | | 255.37 | -42.35 | 68.55 | -48.68 | -0.09 | $10940 \pm 5470$ | $11308^{+260}_{-209}$ | $3.66 \pm 0.22$ | $3.67 \pm 0.23$ |
| Gaia DR3 4794330984455278592 | | 256.83 | -28.93 | 89.16 | -49.52 | -0.45 | $23385 \pm 11692$ | $56835^{+18164}_{-5835}$ | $5.26 \pm 0.19$ | $5.81 \pm 0.15$ |

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|---|---|---|---|---|---|---|---|---|---|---|
| Gaia DR3 4794394824848838144 | | 257.10 | -29.94 | 87.66 | -49.90 | -0.41 | $25000 \pm 12500$ | $44999^{+10001}_{-4762}$ | $5.39 \pm 0.19$ | $5.50 \pm 0.15$ |
| Gaia DR3 4792421648153876864 | | 260.00 | -29.10 | 89.52 | -52.29 | -0.48 | $25000 \pm 12500$ | $115000^{+0}_{-40000}$ | $5.39 \pm 0.19$ | $6.60 \pm 0.15$ |
| Gaia DR3 4794521131247330944 | | 256.32 | -29.62 | 88.01 | -49.19 | -0.43 | $25000 \pm 12500$ | $57073^{+12139}_{-6073}$ | $5.39 \pm 0.19$ | $5.93 \pm 0.15$ |
| Gaia DR3 4788466326871835520 | EC04249-4926 | 256.46 | -43.55 | 66.59 | -49.33 | -0.17 | $14271 \pm 7135$ | $14116^{+352}_{-184}$ | $4.23 \pm 0.22$ | $4.24 \pm 0.23$ |
| Gaia DR3 4796871985890872448 | | 255.04 | -34.16 | 80.96 | -48.58 | -0.51 | $11611 \pm 5805$ | $60805^{+14016}_{-5673}$ | $3.79 \pm 0.22$ | $5.97 \pm 0.15$ |
| Gaia DR3 4789068103329323648 | EC04281-4738 | 253.92 | -43.24 | 67.39 | -47.53 | -0.50 | $25462 \pm 12731$ | $59794^{+15205}_{-8794}$ | $5.42 \pm 0.18$ | $5.97 \pm 0.15$ |
| Gaia DR3 4798186318899393408 | | 253.06 | -34.77 | 79.90 | -46.99 | -0.56 | $25000 \pm 12500$ | $76958^{+22041}_{-5958}$ | $5.39 \pm 0.19$ | $6.30 \pm 0.15$ |
| Gaia DR3 5559892790252848256 | | 255.01 | -13.71 | 109.65 | -43.43 | -0.31 | $25000 \pm 12500$ | $28810^{+2078}_{-1674}$ | $5.39 \pm 0.19$ | $5.65 \pm 0.17$ |
| Gaia DR3 5560955571319696128 | | 253.22 | -14.01 | 108.32 | -41.97 | -0.34 | $9997 \pm 4999$ | $31404^{+5669}_{-3808}$ | $3.48 \pm 0.22$ | $5.78 \pm 0.16$ |
| Gaia DR3 5561999385810491264 | | 253.84 | -18.65 | 102.73 | -44.27 | -0.26 | $25000 \pm 12500$ | $53075^{+1925}_{-15044}$ | $5.39 \pm 0.19$ | $5.77 \pm 0.15$ |
| Gaia DR3 5560547618147413120 | | 254.21 | -12.77 | 110.37 | -42.33 | 0.03 | $12926 \pm 6463$ | $14141^{+428}_{-740}$ | $4.02 \pm 0.22$ | $4.08 \pm 0.23$ |
| Gaia DR3 5561034839237512576 | | 253.31 | -13.76 | 108.67 | -41.95 | -0.32 | $15356 \pm 7678$ | $27542^{+6818}_{-4247}$ | $4.39 \pm 0.22$ | $5.56 \pm 0.18$ |
| Gaia DR3 5561595242271184896 | HD57551 | 252.39 | -12.24 | 110.00 | -40.49 | 0.16 | $25000 \pm 12500$ | $15880^{+1300}_{-1100}$ | $5.39 \pm 0.19$ | $4.83 \pm 0.22$ |
| Gaia DR3 5560578404472948608 | | 254.00 | -12.49 | 110.59 | -42.02 | -0.28 | $25000 \pm 12500$ | $24975^{+1772}_{-1817}$ | $5.39 \pm 0.19$ | $5.40 \pm 0.19$ |
| Gaia DR3 5561219140575828480 | | 252.51 | -14.14 | 107.77 | -41.40 | -0.43 | $25000 \pm 12500$ | $38857^{+16143}_{-10578}$ | $5.39 \pm 0.19$ | $5.37 \pm 0.15$ |
| Gaia DR3 5608619434744773376 | | 239.28 | -13.47 | 102.16 | -29.36 | -0.34 | $25000 \pm 12500$ | $27155^{+2385}_{-2948}$ | $5.39 \pm 0.19$ | $5.62 \pm 0.17$ |
| Gaia DR3 5608100568336403584 | | 240.01 | -10.65 | 105.44 | -28.85 | -0.31 | $10093 \pm 5047$ | $34077^{+6035}_{-3549}$ | $3.50 \pm 0.22$ | $5.89 \pm 0.14$ |
| Gaia DR3 5504831584394389376 | TYC8130-1930-1 | 261.48 | -20.10 | 104.26 | -51.55 | -0.13 | $25000 \pm 12500$ | $15615^{+627}_{-582}$ | $5.39 \pm 0.19$ | $4.34 \pm 0.23$ |
| Gaia DR3 5608848339323479424 | | 239.88 | -10.93 | 105.10 | -28.84 | -0.39 | $25000 \pm 12500$ | $45615^{+9384}_{-11597}$ | $5.39 \pm 0.19$ | $5.49 \pm 0.15$ |
| Gaia DR3 5608402693515282176 | | 240.20 | -13.93 | 102.09 | -30.37 | -0.26 | $25000 \pm 12500$ | $24199^{+1842}_{-1920}$ | $5.39 \pm 0.19$ | $5.51 \pm 0.18$ |
| Gaia DR3 5283289509049221888 | | 277.81 | -27.33 | 96.53 | -67.70 | -0.09 | $12697 \pm 6349$ | $13170^{+471}_{-369}$ | $3.98 \pm 0.22$ | $4.06 \pm 0.23$ |
| Gaia DR3 5579436712515286016 | | 245.54 | -14.12 | 104.34 | -35.19 | 0.13 | $25000 \pm 12500$ | $24562^{+1299}_{-1279}$ | $5.39 \pm 0.19$ | $5.42 \pm 0.19$ |
| Gaia DR3 5578287684206592512 | | 247.39 | -13.80 | 105.60 | -36.71 | -0.07 | $25000 \pm 12500$ | $33925^{+6104}_{-4804}$ | $5.39 \pm 0.19$ | $5.86 \pm 0.18$ |
| Gaia DR3 5578805592840839168 | | 245.51 | -13.08 | 105.49 | -34.75 | -0.33 | $25000 \pm 12500$ | $95116^{+3883}_{-24116}$ | $5.39 \pm 0.19$ | $6.58 \pm 0.15$ |

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|---|---|---|---|---|---|---|---|---|---|
| Gaia DR3 5578307823308779520 | 247.42 | -13.64 | 105.79 | -36.67 | -0.17 | $9056 \pm 4528$ | $33827^{+15373}_{-14626}$ | $3.28 \pm 0.21$ | $5.89 \pm 0.14$ |
| Gaia DR3 5578568437629018496 | 246.48 | -14.00 | 104.93 | -35.98 | 0.12 | $8817 \pm 4408$ | $27292^{+2954}_{-2167}$ | $3.22 \pm 0.21$ | $5.65 \pm 0.17$ |
| Gaia DR3 5579855179769135616 | 244.24 | -13.44 | 104.49 | -33.77 | 0.06 | $15778 \pm 7889$ | $26158^{+28841}_{-11057}$ | $4.45 \pm 0.22$ | $5.50 \pm 0.18$ |
| Gaia DR3 5580746776322416384 | 244.73 | -17.20 | 100.49 | -35.65 | -0.27 | $12766 \pm 6383$ | $26857^{+2449}_{-3034}$ | $3.99 \pm 0.22$ | $5.50 \pm 0.18$ |
| Gaia DR3 5581740876568899712 | 243.24 | -18.85 | 97.98 | -34.91 | -0.30 | $25000 \pm 12500$ | $26999^{+1154}_{-1244}$ | $5.39 \pm 0.19$ | $5.52 \pm 0.18$ |
| Gaia DR3 5581849487702700416 | 242.92 | -17.51 | 99.37 | -34.16 | -0.33 | $25000 \pm 12500$ | $38663^{+4883}_{-3168}$ | $5.39 \pm 0.19$ | $5.40 \pm 0.15$ |
| Gaia DR3 5581877078572078720 | 242.76 | -17.79 | 98.99 | -34.12 | -0.27 | $25000 \pm 12500$ | $23296^{+2224}_{-2363}$ | $5.39 \pm 0.19$ | $5.07 \pm 0.21$ |
| Gaia DR3 5578712301855424640 | 246.04 | -13.55 | 105.23 | -35.41 | -0.44 | $9951 \pm 4976$ | $44232^{+10767}_{-10456}$ | $3.47 \pm 0.22$ | $5.44 \pm 0.15$ |
| Gaia DR3 5579979287142410752 | 246.74 | -19.81 | 98.26 | -38.35 | -0.39 | $15562 \pm 7781$ | $34583^{+4978}_{-4288}$ | $4.42 \pm 0.22$ | $5.77 \pm 0.16$ |
| Gaia DR3 5556042953365726592 | 254.23 | -21.24 | 99.43 | -45.45 | -0.00 | $25000 \pm 12500$ | $41998^{+13002}_{-14361}$ | $5.39 \pm 0.19$ | $5.41 \pm 0.15$ |
| Gaia DR3 5558132128537857920 | 255.81 | -16.71 | 106.22 | -45.33 | -0.35 | $25000 \pm 12500$ | $30574^{+3726}_{-2511}$ | $5.39 \pm 0.19$ | $5.74 \pm 0.16$ |
| Gaia DR3 5557227299187516032 | 252.06 | -20.24 | 99.88 | -43.21 | -0.07 | $13196 \pm 6598$ | $13886^{+1502}_{-752}$ | $4.06 \pm 0.22$ | $4.01 \pm 0.23$ |
| Gaia DR3 5557300038753212544 | 251.56 | -19.99 | 99.99 | -42.69 | -0.34 | $25000 \pm 12500$ | $32419^{+2181}_{-1913}$ | $5.39 \pm 0.19$ | $5.66 \pm 0.17$ |
| Gaia DR3 5556233031438365952 | 253.41 | -19.68 | 101.18 | -44.23 | -0.45 | $25000 \pm 12500$ | $39164^{+13368}_{-4553}$ | $5.39 \pm 0.19$ | $5.39 \pm 0.15$ |
| Gaia DR3 5558245068998964224 | 255.56 | -15.98 | 107.05 | -44.83 | -0.16 | $18243 \pm 9122$ | $30695^{+15990}_{-7893}$ | $4.76 \pm 0.22$ | $5.74 \pm 0.16$ |
| Gaia DR3 5559726523478632576 | 255.44 | -15.02 | 108.23 | -44.34 | -0.35 | $25000 \pm 12500$ | $35364^{+2829}_{-3135}$ | $5.39 \pm 0.19$ | $5.92 \pm 0.15$ |
| Gaia DR3 5559754904622008576 | 255.32 | -14.58 | 108.73 | -44.07 | 0.05 | $13964 \pm 6982$ | $15839^{+941}_{-760}$ | $4.18 \pm 0.22$ | $4.39 \pm 0.23$ |
| Gaia DR3 5558344128123610240 | 255.42 | -16.81 | 105.90 | -45.02 | -0.30 | $25000 \pm 12500$ | $25157^{+2607}_{-2406}$ | $5.39 \pm 0.19$ | $5.45 \pm 0.19$ |
| Gaia DR3 5555241924784487424 | 255.74 | -22.89 | 97.72 | -47.27 | -0.45 | $15643 \pm 7822$ | $27000^{+1769}_{-650}$ | $4.43 \pm 0.22$ | $5.56 \pm 0.18$ |
| Gaia DR3 5558393434348103424 | 255.26 | -16.85 | 105.77 | -44.89 | 0.12 | $19191 \pm 9596$ | $115000^{+0}_{-40000}$ | $4.87 \pm 0.21$ | $6.60 \pm 0.15$ |
| Gaia DR3 5558526475255454976 | 254.73 | -15.85 | 106.78 | -44.04 | -0.38 | $11724 \pm 5862$ | $40106^{+14893}_{-4941}$ | $3.81 \pm 0.22$ | $5.37 \pm 0.15$ |
| Gaia DR3 5559613411219147264 | 253.22 | -15.30 | 106.71 | -42.49 | -0.29 | $18075 \pm 9038$ | $31782^{+6970}_{-5873}$ | $4.74 \pm 0.22$ | $5.73 \pm 0.16$ |
| Gaia DR3 5506874511359626112 | 260.21 | -15.64 | 110.07 | -48.82 | -0.16 | $9998 \pm 4999$ | $30459^{+4748}_{-2244}$ | $3.48 \pm 0.22$ | $5.53 \pm 0.18$ |
| Gaia DR3 5505887424795470336 | 261.44 | -14.88 | 111.87 | -49.58 | -0.16 | $13013 \pm 6506$ | $26197^{+6363}_{-2285}$ | $4.03 \pm 0.22$ | $5.45 \pm 0.19$ |

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|---|---|---|---|---|---|---|---|---|---|---|
| Gaia DR3 5504359069272803584 | | 261.86 | -17.36 | 108.55 | -50.94 | -0.05 | $14368 \pm 7184$ | $15367^{+944}_{-784}$ | $4.25 \pm 0.22$ | $4.37 \pm 0.23$ |
| Gaia DR3 5505270461333288960 | | 261.03 | -16.42 | 109.45 | -49.85 | -0.20 | $25000 \pm 12500$ | $26071^{+3991}_{-3000}$ | $5.39 \pm 0.19$ | $5.28 \pm 0.20$ |
| Gaia DR3 5506496932195527552 | | 261.00 | -13.89 | 112.97 | -48.78 | -0.18 | $25000 \pm 12500$ | $39000^{+16000}_{-6503}$ | $5.39 \pm 0.19$ | $5.39 \pm 0.15$ |
| Gaia DR3 5504619275570915840 | | 261.96 | -20.19 | 104.34 | -52.00 | -0.40 | $16223 \pm 8112$ | $43654^{+11345}_{-4292}$ | $4.51 \pm 0.22$ | $5.54 \pm 0.15$ |
| Gaia DR3 5505415837386181376 | | 260.62 | -17.08 | 108.27 | -49.73 | -0.25 | $16131 \pm 8065$ | $33005^{+5184}_{-3862}$ | $4.50 \pm 0.22$ | $5.87 \pm 0.15$ |
| Gaia DR3 5504018392466526208 | | 262.98 | -17.57 | 108.87 | -52.00 | -0.26 | $13022 \pm 6511$ | $34967^{+18132}_{-7783}$ | $4.03 \pm 0.22$ | $5.88 \pm 0.15$ |
| Gaia DR3 5505495139662480384 | | 260.08 | -17.25 | 107.73 | -49.32 | -0.39 | $11920 \pm 5960$ | $35156^{+5302}_{-4327}$ | $3.84 \pm 0.22$ | $5.89 \pm 0.14$ |
| Gaia DR3 5507148358474299520 | | 259.48 | -15.73 | 109.52 | -48.21 | -0.30 | $12473 \pm 6236$ | $32203^{+4507}_{-3274}$ | $3.94 \pm 0.22$ | $5.83 \pm 0.15$ |
| Gaia DR3 5506623131217231232 | | 260.14 | -13.30 | 113.22 | -47.77 | -0.42 | $8741 \pm 4371$ | $67932^{+7067}_{-16932}$ | $3.21 \pm 0.21$ | $6.08 \pm 0.15$ |
| Gaia DR3 5507187936596071808 | | 259.17 | -15.18 | 110.11 | -47.71 | -0.27 | $11604 \pm 5802$ | $34373^{+6134}_{-4425}$ | $3.79 \pm 0.22$ | $5.88 \pm 0.15$ |
| Gaia DR3 5507262638964327424 | | 259.22 | -13.86 | 111.90 | -47.21 | -0.01 | $25000 \pm 12500$ | $32146^{+2556}_{-1971}$ | $5.39 \pm 0.19$ | $5.83 \pm 0.15$ |
| Gaia DR3 5281579871543677312 | TYC8917-1545-1 | 276.62 | -21.43 | 110.51 | -65.40 | -0.09 | $15003 \pm 7501$ | $16904^{+1090}_{-755}$ | $4.34 \pm 0.22$ | $4.56 \pm 0.22$ |
| Gaia DR3 5280636009529724544 | | 279.01 | -24.01 | 105.74 | -68.23 | -0.31 | $25000 \pm 12500$ | $36115^{+4933}_{-4458}$ | $5.39 \pm 0.19$ | $5.39 \pm 0.15$ |
| Gaia DR3 5281707140014531328 | | 277.47 | -24.65 | 103.30 | -67.00 | -0.40 | $25000 \pm 12500$ | $39609^{+6550}_{-4604}$ | $5.39 \pm 0.19$ | $5.39 \pm 0.19$ |
| Gaia DR3 5280973147283545344 | | 277.98 | -23.92 | 105.39 | -67.29 | -0.39 | $25000 \pm 12500$ | $30751^{+2339}_{-1796}$ | $5.39 \pm 0.19$ | $5.81 \pm 0.15$ |
| Gaia DR3 5281142815671713280 | TYC8921-117-1 | 278.07 | -22.40 | 109.23 | -66.97 | 0.19 | $10546 \pm 5273$ | $13530^{+1733}_{-1328}$ | $3.59 \pm 0.22$ | $3.75 \pm 0.23$ |
| Gaia DR3 5281283828038644992 | | 277.60 | -21.29 | 111.55 | -66.21 | -0.28 | $9999 \pm 4999$ | $60912^{+14088}_{-9911}$ | $3.48 \pm 0.22$ | $5.88 \pm 0.15$ |
| Gaia DR3 5282972506111527808 | | 277.81 | -27.90 | 95.04 | -67.74 | -0.30 | $9998 \pm 4999$ | $25000^{+1119}_{-1042}$ | $3.48 \pm 0.22$ | $5.38 \pm 0.19$ |
| Gaia DR3 5314281752539992576 | | 274.67 | -12.55 | 126.12 | -59.79 | -0.21 | $10892 \pm 5446$ | $41076^{+13924}_{-8997}$ | $3.65 \pm 0.22$ | $5.40 \pm 0.15$ |
| Gaia DR3 5314283058210629760 | | 275.01 | -12.44 | 126.65 | -60.02 | -0.20 | $9999 \pm 4999$ | $30049^{+8936}_{-4887}$ | $3.48 \pm 0.22$ | $5.56 \pm 0.18$ |
| Gaia DR3 5293139655760876544 | | 271.90 | -20.76 | 108.78 | -61.01 | -0.22 | $12864 \pm 6432$ | $25998^{+1439}_{-1713}$ | $4.01 \pm 0.22$ | $5.46 \pm 0.19$ |
| Gaia DR3 5294081726770000128 | | 272.06 | -16.38 | 117.06 | -59.48 | -0.15 | $17403 \pm 8702$ | $115000^{+0}_{-40000}$ | $4.66 \pm 0.22$ | $6.60 \pm 0.15$ |
| Gaia DR3 5293318566918120064 | | 271.16 | -19.31 | 111.06 | -59.87 | -0.03 | $19148 \pm 9574$ | $27682^{+2440}_{-2959}$ | $4.86 \pm 0.21$ | $5.65 \pm 0.17$ |
| Gaia DR3 5293439994234291968 | | 271.63 | -18.61 | 112.68 | -60.02 | 0.11 | $19989 \pm 9994$ | $30693^{+5350}_{-3947}$ | $4.95 \pm 0.21$ | $5.76 \pm 0.16$ |

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|---|---|---|---|---|---|---|---|---|---|---|
| Gaia DR3 5294228412791682048 | | 271.93 | -15.17 | 119.06 | -58.82 | 0.17 | $25000 \pm 12500$ | $32937^{+6590}_{-5899}$ | $5.39 \pm 0.19$ | $5.85 \pm 0.15$ |
| Gaia DR3 5292572681421479424 | | 272.17 | -16.85 | 116.31 | -59.78 | -0.20 | $13002 \pm 6501$ | $30249^{+4225}_{-2776}$ | $4.03 \pm 0.22$ | $5.65 \pm 0.17$ |
| Gaia DR3 5294481678423562496 | | 271.07 | -15.58 | 117.63 | -58.28 | -0.16 | $10000 \pm 5000$ | $27717^{+2799}_{-2113}$ | $3.48 \pm 0.22$ | $5.57 \pm 0.18$ |
| Gaia DR3 5294488206773795200 | | 271.01 | -15.36 | 117.95 | -58.13 | 0.22 | $25000 \pm 12500$ | $58057^{+16942}_{-7057}$ | $5.39 \pm 0.19$ | $5.95 \pm 0.15$ |
| Gaia DR3 5293807609074450304 | TYC8563-1188-1 | 270.38 | -18.15 | 112.63 | -58.74 | -0.04 | $18735 \pm 9368$ | $24394^{+1241}_{-1265}$ | $4.82 \pm 0.21$ | $5.34 \pm 0.19$ |
| Gaia DR3 4729626958543290368 | EC03372-5808 | 271.34 | -47.63 | 54.60 | -57.97 | -0.35 | $19968 \pm 9984$ | $68585^{+6414}_{-16943}$ | $4.95 \pm 0.21$ | $6.12 \pm 0.15$ |
| Gaia DR3 4723745773925604352 | | 275.93 | -48.96 | 49.25 | -59.83 | -0.32 | $19873 \pm 9936$ | $22480^{+1196}_{-1033}$ | $4.94 \pm 0.21$ | $5.18 \pm 0.20$ |
| Gaia DR3 4723810851270083072 | EC03143-5945 | 275.77 | -49.27 | 48.88 | -59.57 | 0.21 | $25000 \pm 12500$ | $24580^{+1274}_{-1197}$ | $5.39 \pm 0.19$ | $5.29 \pm 0.20$ |
| Gaia DR3 4731473107286134528 | 2MASSJ03453895-5532069 | 267.44 | -47.81 | 56.41 | -55.54 | -0.04 | $25000 \pm 12500$ | $10677^{+464}_{-249}$ | $5.39 \pm 0.19$ | $3.57 \pm 0.22$ |
| Gaia DR3 4731746232846281344 | EC03572-5455 | 265.40 | -46.40 | 59.62 | -54.78 | 0.08 | $13965 \pm 6983$ | $24411^{+30589}_{-5738}$ | $4.18 \pm 0.22$ | $5.33 \pm 0.19$ |
| Gaia DR3 4728798236013640960 | | 274.45 | -46.96 | 53.67 | -60.13 | 0.01 | $19989 \pm 9994$ | $26204^{+3702}_{-2882}$ | $4.95 \pm 0.21$ | $5.47 \pm 0.18$ |
| Gaia DR3 5582784072586681600 | | 243.89 | -14.74 | 102.89 | -33.97 | -0.31 | $25000 \pm 12500$ | $99870^{+15129}_{-4687}$ | $5.39 \pm 0.19$ | $6.61 \pm 0.15$ |
| Gaia DR3 5583500404412606592 | | 242.31 | -16.45 | 100.30 | -33.22 | -0.39 | $19984 \pm 9992$ | $40607^{+14393}_{-4696}$ | $4.95 \pm 0.21$ | $5.39 \pm 0.15$ |
| Gaia DR3 5584309675031744512 | | 240.27 | -15.66 | 100.27 | -31.11 | -0.30 | $25000 \pm 12500$ | $26062^{+2267}_{-1955}$ | $5.39 \pm 0.19$ | $5.46 \pm 0.19$ |
| Gaia DR3 5583804144499696256 | | 241.38 | -16.02 | 100.36 | -32.23 | -0.27 | $9998 \pm 4999$ | $26215^{+2425}_{-1841}$ | $3.48 \pm 0.22$ | $5.46 \pm 0.18$ |
| Gaia DR3 5583091106910179968 | | 242.50 | -15.03 | 101.94 | -32.85 | -0.28 | $12023 \pm 6011$ | $27235^{+2579}_{-2117}$ | $3.86 \pm 0.22$ | $5.65 \pm 0.17$ |
| Gaia DR3 5487322544619328640 | | 267.45 | -16.86 | 112.79 | -55.67 | -0.02 | $8000 \pm 4000$ | $33696^{+4774}_{-3567}$ | $3.04 \pm 0.21$ | $5.88 \pm 0.15$ |
| Gaia DR3 5486545533496209792 | | 269.24 | -20.29 | 108.04 | -58.50 | -0.39 | $9993 \pm 4997$ | $54916^{+84}_{-11247}$ | $3.48 \pm 0.22$ | $5.78 \pm 0.15$ |
| Gaia DR3 5485756878718056448 | | 269.57 | -20.66 | 107.56 | -58.91 | -0.26 | $25000 \pm 12500$ | $28123^{+1959}_{-1481}$ | $5.39 \pm 0.19$ | $5.52 \pm 0.18$ |
| Gaia DR3 5486074637578941184 | | 269.29 | -18.02 | 112.09 | -57.74 | -0.19 | $25000 \pm 12500$ | $19160^{+840}_{-2313}$ | $5.39 \pm 0.19$ | $4.80 \pm 0.22$ |
| Gaia DR3 5486140264679806976 | | 269.37 | -16.74 | 114.35 | -57.30 | -0.26 | $16215 \pm 8108$ | $115000^{+0}_{-40000}$ | $4.51 \pm 0.22$ | $6.60 \pm 0.15$ |
| Gaia DR3 5487768984998366592 | | 268.51 | -15.78 | 115.29 | -56.15 | -0.23 | $25000 \pm 12500$ | $29399^{+3704}_{-2387}$ | $5.39 \pm 0.19$ | $5.85 \pm 0.15$ |
| Gaia DR3 5488364920301457152 | | 268.01 | -13.36 | 118.71 | -54.63 | -0.20 | $25000 \pm 12500$ | $40387^{+8484}_{-3258}$ | $5.39 \pm 0.19$ | $5.42 \pm 0.15$ |
| Gaia DR3 5486161567717719680 | | 269.35 | -17.48 | 113.07 | -57.58 | -0.24 | $25000 \pm 12500$ | $35867^{+4761}_{-4667}$ | $5.39 \pm 0.19$ | $5.46 \pm 0.15$ |

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|---|---|---|---|---|---|---|---|---|---|---|
| Gaia DR3 5485330440005020544 | | 264.97 | -21.13 | 104.30 | -54.98 | -0.30 | $17075 \pm 8538$ | $25583^{+9226}_{-3208}$ | $4.62 \pm 0.22$ | $5.32 \pm 0.19$ |
| Gaia DR3 5485368922911960576 | | 264.75 | -20.98 | 104.44 | -54.73 | -0.10 | $16193 \pm 8096$ | $15426^{+641}_{-531}$ | $4.50 \pm 0.22$ | $4.37 \pm 0.23$ |
| Gaia DR3 5485451897384178816 | | 270.42 | -20.07 | 109.15 | -59.48 | -0.27 | $19749 \pm 9875$ | $48464^{+5020}_{-3950}$ | $4.93 \pm 0.21$ | $5.61 \pm 0.15$ |
| Gaia DR3 5487157450374188032 | | 267.93 | -18.30 | 110.71 | -56.65 | -0.17 | $25000 \pm 12500$ | $27862^{+1869}_{-1553}$ | $5.39 \pm 0.19$ | $5.58 \pm 0.18$ |
| Gaia DR3 5486262894585667456 | | 268.91 | -18.30 | 111.35 | -57.51 | -0.28 | $28887 \pm 14443$ | $42079^{+12244}_{-3449}$ | $5.64 \pm 0.17$ | $5.41 \pm 0.15$ |
| Gaia DR3 5486348342957185152 | | 268.55 | -17.85 | 111.89 | -57.03 | -0.21 | $17816 \pm 8908$ | $26201^{+2109}_{-1886}$ | $4.71 \pm 0.22$ | $5.41 \pm 0.19$ |
| Gaia DR3 5486388170189876480 | | 268.74 | -17.55 | 112.53 | -57.08 | -0.18 | $25000 \pm 12500$ | $33084^{+15689}_{-5724}$ | $5.39 \pm 0.19$ | $5.83 \pm 0.15$ |
| Gaia DR3 5486406483933078016 | | 268.75 | -17.05 | 113.38 | -56.89 | -0.20 | $25000 \pm 12500$ | $24531^{+24905}_{-6941}$ | $5.39 \pm 0.19$ | $5.21 \pm 0.20$ |
| Gaia DR3 4681207760695317504 | | 270.40 | -45.60 | 58.59 | -58.30 | -0.52 | $17426 \pm 8713$ | $103582^{+11417}_{-28582}$ | $4.66 \pm 0.22$ | $6.66 \pm 0.15$ |
| Gaia DR3 4681744464104246144 | FAUST529 | 269.69 | -43.34 | 62.94 | -58.68 | -0.43 | $23005 \pm 11502$ | $31484^{+1529}_{-997}$ | $5.23 \pm 0.20$ | $5.77 \pm 0.16$ |
| Gaia DR3 4679135456154867200 | | 268.52 | -41.56 | 66.70 | -58.41 | 0.06 | $9599 \pm 4799$ | $10289^{+368}_{-213}$ | $3.39 \pm 0.22$ | $3.52 \pm 0.22$ |
| Gaia DR3 4682469347208252544 | | 267.64 | -44.36 | 62.09 | -56.95 | 0.18 | $8744 \pm 4372$ | $9700^{+552}_{-363}$ | $3.21 \pm 0.21$ | $3.42 \pm 0.22$ |
| Gaia DR3 5590549785776715904 | | 246.73 | -11.15 | 108.24 | -35.02 | 0.09 | $15579 \pm 7790$ | $13167^{+1486}_{-987}$ | $4.42 \pm 0.22$ | $4.36 \pm 0.23$ |
| Gaia DR3 5589462300057217664 | | 248.64 | -11.00 | 109.40 | -36.65 | -0.17 | $25000 \pm 12500$ | $74999^{+24000}_{-3999}$ | $5.39 \pm 0.19$ | $6.27 \pm 0.15$ |
| Gaia DR3 5590669009767935360 | | 247.56 | -10.01 | 109.93 | -35.26 | -0.23 | $25000 \pm 12500$ | $115000^{+0}_{-40000}$ | $5.39 \pm 0.19$ | $6.60 \pm 0.15$ |
| Gaia DR3 5590188699286046720 | | 247.78 | -12.11 | 107.71 | -36.37 | 0.20 | $8240 \pm 4120$ | $115000^{+0}_{-19360}$ | $3.10 \pm 0.21$ | $6.60 \pm 0.15$ |
| Gaia DR3 5590218008142683520 | V*V348Pup | 247.68 | -11.68 | 108.14 | -36.09 | 0.30 | $25000 \pm 12500$ | $26418^{+6106}_{-4828}$ | $5.39 \pm 0.19$ | $5.44 \pm 0.19$ |
| Gaia DR3 5603150841866967808 | | 245.23 | -10.49 | 108.19 | -33.41 | -0.09 | $15928 \pm 7964$ | $17128^{+998}_{-774}$ | $4.47 \pm 0.22$ | $4.62 \pm 0.22$ |
| Gaia DR3 5602859746161366016 | | 244.99 | -12.53 | 105.84 | -34.06 | -0.47 | $25000 \pm 12500$ | $35882^{+17118}_{-5467}$ | $5.39 \pm 0.19$ | $5.61 \pm 0.15$ |
| Gaia DR3 5602865896554778240 | | 245.17 | -12.29 | 106.20 | -34.12 | -0.24 | $9999 \pm 5000$ | $25023^{+2069}_{-1983}$ | $3.48 \pm 0.22$ | $5.39 \pm 0.19$ |
| Gaia DR3 5489111419976283648 | | 266.24 | -15.64 | 113.89 | -54.11 | -0.28 | $25000 \pm 12500$ | $33042^{+4223}_{-3390}$ | $5.39 \pm 0.19$ | $5.77 \pm 0.16$ |
| Gaia DR3 5489134200483057792 | | 266.21 | -16.30 | 112.84 | -54.36 | -0.26 | $13958 \pm 6979$ | $30867^{+4416}_{-2911}$ | $4.18 \pm 0.22$ | $5.78 \pm 0.16$ |
| Gaia DR3 5491580506476906752 | | 265.08 | -18.31 | 108.96 | -54.13 | -0.36 | $25000 \pm 12500$ | $96955^{+2045}_{-3459}$ | $5.39 \pm 0.19$ | $6.60 \pm 0.15$ |
| Gaia DR3 5489470994640261632 | | 266.56 | -13.37 | 117.56 | -53.38 | -0.13 | $13022 \pm 6511$ | $48080^{+6919}_{-14228}$ | $4.03 \pm 0.22$ | $5.54 \pm 0.15$ |

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|---|---|---|---|---|---|---|---|---|---|---|
| Gaia DR3 5489474568050307584 | | 266.63 | -13.18 | 117.89 | -53.35 | -0.14 | $8841 \pm 4421$ | $31454^{+15860}_{-6337}$ | $3.23 \pm 0.21$ | $5.78 \pm 0.16$ |
| Gaia DR3 5492266429935109504 | | 265.14 | -15.70 | 113.05 | -53.18 | -0.22 | $25000 \pm 12500$ | $37058^{+6050}_{-4257}$ | $5.39 \pm 0.19$ | $5.46 \pm 0.15$ |
| Gaia DR3 5488909419075142656 | | 267.27 | -15.38 | 115.03 | -54.90 | -0.23 | $17682 \pm 8841$ | $27845^{+3039}_{-2178}$ | $4.69 \pm 0.22$ | $5.65 \pm 0.17$ |
| Gaia DR3 5492330446422516352 | | 265.24 | -14.58 | 114.79 | -52.78 | -0.17 | $10490 \pm 5245$ | $115000^{+0}_{-40000}$ | $3.58 \pm 0.22$ | $6.60 \pm 0.15$ |
| Gaia DR3 5274859037999443072 | | 279.41 | -20.96 | 113.80 | -67.69 | -0.28 | $19018 \pm 9509$ | $41890^{+13109}_{-8874}$ | $4.85 \pm 0.21$ | $5.41 \pm 0.15$ |
| Gaia DR3 5275723112401953408 | | 277.74 | -18.24 | 118.52 | -65.17 | -0.50 | $25000 \pm 12500$ | $107000^{+8000}_{-31999}$ | $5.39 \pm 0.19$ | $6.67 \pm 0.15$ |
| Gaia DR3 5273575426896338304 | | 279.94 | -13.94 | 129.84 | -64.83 | -0.28 | $25000 \pm 12500$ | $31634^{+4040}_{-2495}$ | $5.39 \pm 0.19$ | $5.77 \pm 0.16$ |
| Gaia DR3 5274477232586856704 | | 279.70 | -17.39 | 122.44 | -66.45 | -0.20 | $25000 \pm 12500$ | $31375^{+6022}_{-4081}$ | $5.39 \pm 0.19$ | $5.74 \pm 0.16$ |
| Gaia DR3 5275493112611627648 | | 278.15 | -18.90 | 117.47 | -65.81 | -0.32 | $25000 \pm 12500$ | $33213^{+5042}_{-4191}$ | $5.39 \pm 0.19$ | $5.84 \pm 0.15$ |
| Gaia DR3 5276238581495650944 | | 278.61 | -15.31 | 125.50 | -64.50 | -0.27 | $12971 \pm 6486$ | $37647^{+17149}_{-7528}$ | $4.02 \pm 0.22$ | $5.43 \pm 0.15$ |
| Gaia DR3 5276922134131052288 | | 277.69 | -14.35 | 126.28 | -63.24 | -0.28 | $25000 \pm 12500$ | $33051^{+3774}_{-3159}$ | $5.39 \pm 0.19$ | $5.78 \pm 0.16$ |
| Gaia DR3 5609606246432238080 | | 239.93 | -10.34 | 105.72 | -28.64 | -0.40 | $25000 \pm 12500$ | $28000^{+5925}_{-3096}$ | $5.39 \pm 0.19$ | $5.59 \pm 0.17$ |
| Gaia DR3 5610727198536681600 | | 238.20 | -10.57 | 104.67 | -27.20 | -0.29 | $25000 \pm 12500$ | $24091^{+30908}_{-5836}$ | $5.39 \pm 0.19$ | $5.36 \pm 0.19$ |
| Gaia DR3 5610452114472366208 | | 238.98 | -10.75 | 104.85 | -27.97 | 0.06 | $25000 \pm 12500$ | $20460^{+3645}_{-2654}$ | $5.39 \pm 0.19$ | $4.96 \pm 0.21$ |
| Gaia DR3 2882695157594194560 | | 246.24 | -26.86 | 89.38 | -39.94 | -0.27 | $16718 \pm 8359$ | $25112^{+5131}_{-3768}$ | $4.57 \pm 0.22$ | $5.41 \pm 0.19$ |
| Gaia DR3 4779256473879923072 | HE0414-5429 | 263.78 | -44.17 | 63.88 | -54.37 | -0.49 | $44678 \pm 22339$ | $63000^{+12000}_{-11607}$ | $6.18 \pm 0.10$ | $5.97 \pm 0.15$ |
| Gaia DR3 5295993433894534400 | | 269.24 | -14.01 | 118.69 | -55.99 | -0.17 | $25000 \pm 12500$ | $38000^{+5020}_{-4970}$ | $5.39 \pm 0.19$ | $5.42 \pm 0.15$ |
| Gaia DR3 2903766885624126208 | | 235.55 | -27.55 | 85.48 | -30.96 | -0.46 | $25000 \pm 12500$ | $30325^{+2664}_{-892}$ | $5.39 \pm 0.19$ | $5.73 \pm 0.16$ |
| Gaia DR3 2909849452668493568 | TYC6499-463-1 | 233.46 | -23.12 | 89.64 | -27.78 | -0.03 | $9990 \pm 4995$ | $10508^{+500}_{-301}$ | $3.47 \pm 0.22$ | $3.54 \pm 0.22$ |
| Gaia DR3 2909968646602030336 | HD41571 | 234.25 | -21.93 | 91.18 | -28.06 | -0.04 | $25000 \pm 12500$ | $10505^{+147}_{-104}$ | $5.39 \pm 0.19$ | $3.56 \pm 0.22$ |
| Gaia DR3 2906636679691633920 | EC05242-2900 | 232.28 | -30.25 | 81.55 | -28.97 | -0.44 | $15689 \pm 7844$ | $46413^{+7846}_{-4102}$ | $4.44 \pm 0.22$ | $5.57 \pm 0.15$ |
| Gaia DR3 2910426764992603136 | | 232.62 | -20.97 | 91.60 | -26.31 | -0.06 | $10800 \pm 5400$ | $11328^{+211}_{-175}$ | $3.64 \pm 0.22$ | $3.83 \pm 0.23$ |
| Gaia DR3 2907300509837552000 | | 232.81 | -27.31 | 84.91 | -28.56 | 0.02 | $25000 \pm 12500$ | $56544^{+18455}_{-5544}$ | $5.39 \pm 0.19$ | $5.84 \pm 0.15$ |
| Gaia DR3 2903432359211424896 | | 235.66 | -25.59 | 87.69 | -30.47 | -0.21 | $18337 \pm 9169$ | $32683^{+20314}_{-3928}$ | $4.77 \pm 0.22$ | $5.92 \pm 0.14$ |

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|---|---|---|---|---|---|---|---|---|---|---|
| Gaia DR3 2910787061209030912 | | 232.50 | -24.31 | 88.04 | -27.35 | -0.48 | $17268 \pm 8634$ | $46350^{+8649}_{-7108}$ | $4.64 \pm 0.22$ | $5.50 \pm 0.15$ |
| Gaia DR3 2911066474601725312 | | 232.46 | -21.93 | 90.54 | -26.50 | -0.46 | $25000 \pm 12500$ | $33013^{+3789}_{-2840}$ | $5.39 \pm 0.19$ | $5.80 \pm 0.15$ |
| Gaia DR3 2911281356108496640 | | 231.57 | -21.50 | 90.66 | -25.58 | -0.30 | $9110 \pm 4555$ | $50424^{+4575}_{-12728}$ | $3.29 \pm 0.22$ | $5.69 \pm 0.15$ |
| Gaia DR3 2911497105202950400 | | 231.01 | -21.80 | 90.15 | -25.20 | -0.34 | $25000 \pm 12500$ | $23704^{+16647}_{-1115}$ | $5.39 \pm 0.19$ | $5.32 \pm 0.20$ |
| Gaia DR3 2909401745277447808 | | 235.15 | -23.77 | 89.52 | -29.45 | -0.48 | $22818 \pm 11409$ | $45424^{+5041}_{-2151}$ | $5.22 \pm 0.20$ | $5.50 \pm 0.15$ |
| Gaia DR3 2911633994400906112 | | 233.40 | -19.82 | 93.09 | -26.58 | -0.45 | $25000 \pm 12500$ | $36221^{+6845}_{-2781}$ | $5.39 \pm 0.19$ | $5.59 \pm 0.15$ |
| Gaia DR3 2909453662841894016 | | 234.73 | -23.38 | 89.79 | -28.97 | -0.47 | $25000 \pm 12500$ | $39014^{+4878}_{-3034}$ | $5.39 \pm 0.19$ | $5.37 \pm 0.15$ |
| Gaia DR3 2909497952544966272 | | 234.80 | -22.60 | 90.67 | -28.77 | -0.36 | $25000 \pm 12500$ | $29614^{+2624}_{-2481}$ | $5.39 \pm 0.19$ | $5.67 \pm 0.17$ |
| Gaia DR3 2909498742818950912 | | 234.78 | -22.62 | 90.63 | -28.76 | -0.14 | $13461 \pm 6730$ | $14042^{+617}_{-464}$ | $4.11 \pm 0.22$ | $4.10 \pm 0.23$ |
| Gaia DR3 2909679852999761536 | | 234.34 | -23.96 | 89.04 | -28.82 | -0.06 | $10655 \pm 5328$ | $10181^{+218}_{-154}$ | $3.61 \pm 0.22$ | $3.50 \pm 0.22$ |
| Gaia DR3 2926097657551506944 | | 232.23 | -10.03 | 102.46 | -21.66 | -0.02 | $25000 \pm 12500$ | $32731^{+6972}_{-4600}$ | $5.39 \pm 0.19$ | $5.88 \pm 0.15$ |
| Gaia DR3 2925537589514023680 | | 232.90 | -11.53 | 101.28 | -22.89 | -0.16 | $10000 \pm 5000$ | $25600^{+5220}_{-3041}$ | $3.48 \pm 0.22$ | $5.36 \pm 0.19$ |
| Gaia DR3 2926995924196672256 | CPD-201613 | 231.09 | -10.43 | 101.55 | -20.81 | 0.04 | $10047 \pm 5023$ | $10248^{+211}_{-128}$ | $3.49 \pm 0.22$ | $3.54 \pm 0.22$ |
| Gaia DR3 5498415349929663104 | | 263.06 | -22.07 | 101.88 | -53.54 | -0.41 | $25000 \pm 12500$ | $99519^{+15481}_{-24518}$ | $5.39 \pm 0.19$ | $6.60 \pm 0.15$ |
| Gaia DR3 5502667363256067200 | | 259.69 | -23.65 | 98.06 | -50.97 | -0.51 | $10404 \pm 5202$ | $42925^{+12075}_{-13655}$ | $3.56 \pm 0.22$ | $5.41 \pm 0.15$ |
| Gaia DR3 5502786595845082752 | | 259.30 | -23.13 | 98.71 | -50.49 | -0.11 | $12995 \pm 6498$ | $12360^{+490}_{-302}$ | $4.03 \pm 0.22$ | $3.89 \pm 0.23$ |
| Gaia DR3 5498758363198539520 | | 262.25 | -21.21 | 102.90 | -52.57 | -0.02 | $25000 \pm 12500$ | $26100^{+3959}_{-2341}$ | $5.39 \pm 0.19$ | $5.49 \pm 0.18$ |
| Gaia DR3 5501837854749153024 | | 261.05 | -21.81 | 101.43 | -51.68 | -0.42 | $17477 \pm 8738$ | $29592^{+3114}_{-1573}$ | $4.67 \pm 0.22$ | $5.67 \pm 0.17$ |
| Gaia DR3 5501929045495259392 | | 260.90 | -21.16 | 102.37 | -51.36 | -0.12 | $16211 \pm 8105$ | $19408^{+591}_{-412}$ | $4.51 \pm 0.22$ | $4.88 \pm 0.22$ |
| Gaia DR3 5497677749426668800 | | 263.56 | -20.66 | 104.39 | -53.57 | 0.08 | $25000 \pm 12500$ | $18218^{+1782}_{-1589}$ | $5.39 \pm 0.19$ | $4.69 \pm 0.22$ |
| Gaia DR3 5497690015853206656 | | 263.34 | -20.76 | 104.12 | -53.41 | -0.32 | $25000 \pm 12500$ | $25222^{+1513}_{-1428}$ | $5.39 \pm 0.19$ | $5.39 \pm 0.19$ |
| Gaia DR3 5503089133341793792 | | 259.01 | -20.36 | 102.71 | -49.43 | 0.02 | $25000 \pm 12500$ | $18000^{+2000}_{-3303}$ | $5.39 \pm 0.19$ | $4.40 \pm 0.23$ |
| Gaia DR3 5503674451484986880 | | 262.92 | -18.36 | 107.64 | -52.24 | -0.25 | $25000 \pm 12500$ | $25590^{+1215}_{-1195}$ | $5.39 \pm 0.19$ | $5.42 \pm 0.19$ |
| Gaia DR3 4883474679951350656 | CD-321567 | 232.12 | -48.84 | 60.27 | -32.40 | -0.40 | $28000 \pm 14000$ | $27664^{+335}_{-1219}$ | $5.59 \pm 0.17$ | $5.50 \pm 0.18$ |

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|---|---|---|---|---|---|---|---|---|---|---|
| Gaia DR3 5500688521500741888 | | 261.66 | -26.38 | 94.35 | -53.31 | -0.26 | $25000 \pm 12500$ | $24999^{+3218}_{-3595}$ | $5.39 \pm 0.19$ | $5.32 \pm 0.19$ |
| Gaia DR3 5500758237415881984 | | 261.47 | -25.22 | 96.19 | -52.91 | 0.09 | $25000 \pm 12500$ | $27485^{+3071}_{-2332}$ | $5.39 \pm 0.19$ | $5.58 \pm 0.18$ |
| Gaia DR3 5500820222383763584 | | 261.17 | -25.42 | 95.77 | -52.69 | -0.39 | $21836 \pm 10918$ | $68386^{+6614}_{-17385}$ | $5.13 \pm 0.20$ | $6.13 \pm 0.15$ |
| Gaia DR3 5501254220233096832 | | 262.38 | -24.07 | 98.37 | -53.46 | -0.13 | $17414 \pm 8707$ | $12421^{+1284}_{-300}$ | $4.66 \pm 0.22$ | $4.07 \pm 0.23$ |
| Gaia DR3 5286134216206883072 | | 274.39 | -24.91 | 101.33 | -64.31 | -0.25 | $16206 \pm 8103$ | $28833^{+748}_{-785}$ | $4.51 \pm 0.22$ | $5.65 \pm 0.17$ |
| Gaia DR3 5285175510786390144 | | 275.36 | -23.52 | 104.93 | -64.87 | -0.31 | $16848 \pm 8424$ | $27136^{+2008}_{-2347}$ | $4.59 \pm 0.22$ | $5.52 \pm 0.18$ |
| Gaia DR3 5287305436608284288 | | 277.39 | -20.73 | 112.68 | -65.84 | -0.27 | $19381 \pm 9691$ | $29570^{+5062}_{-3041}$ | $4.89 \pm 0.21$ | $5.71 \pm 0.16$ |
| Gaia DR3 5285400193412971264 | | 275.06 | -24.05 | 103.59 | -64.72 | -0.31 | $25000 \pm 12500$ | $23415^{+2412}_{-1745}$ | $5.39 \pm 0.19$ | $5.48 \pm 0.18$ |
| Gaia DR3 5285464377404208128 | | 274.38 | -23.33 | 104.87 | -63.95 | -0.27 | $19493 \pm 9746$ | $60079^{+14920}_{-9079}$ | $4.90 \pm 0.21$ | $5.92 \pm 0.15$ |
| Gaia DR3 5286603437090749568 | | 272.88 | -23.86 | 102.97 | -62.74 | 0.24 | $24484 \pm 12242$ | $22914^{+2502}_{-2107}$ | $5.35 \pm 0.19$ | $5.20 \pm 0.20$ |
| Gaia DR3 5287583789146970624 | | 276.47 | -20.96 | 111.43 | -65.11 | -0.17 | $9999 \pm 4999$ | $47307^{+7692}_{-12052}$ | $3.48 \pm 0.22$ | $5.54 \pm 0.15$ |
| Gaia DR3 5288463604607447040 | | 275.40 | -20.38 | 111.93 | -63.98 | -0.14 | $18297 \pm 9149$ | $28027^{+2425}_{-2930}$ | $4.77 \pm 0.22$ | $5.48 \pm 0.18$ |
| Gaia DR3 5288588193018730880 | | 274.94 | -19.71 | 112.98 | -63.33 | -0.21 | $25000 \pm 12500$ | $28286^{+3249}_{-3531}$ | $5.39 \pm 0.19$ | $5.56 \pm 0.18$ |
| Gaia DR3 5286825950756440832 | | 273.01 | -22.02 | 106.91 | -62.38 | -0.32 | $25000 \pm 12500$ | $45115^{+9884}_{-4710}$ | $5.39 \pm 0.19$ | $5.44 \pm 0.15$ |
| Gaia DR3 5284632390700012928 | | 274.97 | -26.11 | 98.78 | -65.04 | -0.37 | $25000 \pm 12500$ | $26442^{+1951}_{-1836}$ | $5.39 \pm 0.19$ | $5.46 \pm 0.18$ |
| Gaia DR3 5287775688285595904 | | 275.64 | -19.19 | 114.62 | -63.74 | -0.29 | $9999 \pm 5000$ | $75257^{+21441}_{-4256}$ | $3.48 \pm 0.22$ | $6.27 \pm 0.15$ |
| Gaia DR3 5288678249893298304 | | 275.00 | -20.12 | 112.17 | -63.53 | -0.20 | $25000 \pm 12500$ | $33465^{+10525}_{-3333}$ | $5.39 \pm 0.19$ | $5.88 \pm 0.15$ |
| Gaia DR3 5288693711775341312 | 2MASSJ07270387-6319525 | 274.73 | -20.22 | 111.77 | -63.33 | 0.20 | $25000 \pm 12500$ | $21000^{+1817}_{-1384}$ | $5.39 \pm 0.19$ | $4.96 \pm 0.21$ |
| Gaia DR3 5289165505343002880 | | 274.30 | -17.35 | 117.16 | -61.83 | -0.14 | $25000 \pm 12500$ | $25349^{+3229}_{-2836}$ | $5.39 \pm 0.19$ | $5.48 \pm 0.18$ |
| Gaia DR3 5563671055801941888 | | 251.38 | -16.47 | 104.35 | -41.30 | -0.34 | $25000 \pm 12500$ | $24201^{+5206}_{-1934}$ | $5.39 \pm 0.19$ | $5.29 \pm 0.20$ |
| Gaia DR3 5565037503938846080 | | 249.87 | -12.00 | 108.92 | -38.17 | -0.17 | $15377 \pm 7689$ | $25172^{+1925}_{-1879}$ | $4.39 \pm 0.22$ | $5.40 \pm 0.19$ |
| Gaia DR3 5562877345845646592 | | 251.80 | -16.47 | 104.55 | -41.67 | -0.32 | $25000 \pm 12500$ | $21345^{+1468}_{-732}$ | $5.39 \pm 0.19$ | $5.12 \pm 0.21$ |
| Gaia DR3 5564504073299975424 | | 251.11 | -14.97 | 106.05 | -40.48 | -0.29 | $15011 \pm 7506$ | $56775^{+8363}_{-5775}$ | $4.34 \pm 0.22$ | $5.86 \pm 0.15$ |
| Gaia DR3 5563724450835110144 | | 250.89 | -16.94 | 103.55 | -41.04 | -0.15 | $25000 \pm 12500$ | $18321^{+1270}_{-1098}$ | $5.39 \pm 0.19$ | $4.76 \pm 0.22$ |

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|---|---|---|---|---|---|---|---|---|---|---|
| Gaia DR3 5563978742961343232 | TYC7632-1541-1 | 250.06 | -16.51 | 103.68 | -40.14 | -0.22 | $19880 \pm 9940$ | $25047^{+294}_{-300}$ | $4.94 \pm 0.21$ | $5.44 \pm 0.19$ |
| Gaia DR3 5563401572373342080 | | 251.37 | -18.10 | 102.32 | -41.88 | -0.25 | $25000 \pm 12500$ | $25401^{+1982}_{-1899}$ | $5.39 \pm 0.19$ | $5.47 \pm 0.18$ |
| Gaia DR3 5565582591127646336 | NOVAPup2007b | 249.11 | -13.81 | 106.43 | -38.24 | 0.24 | $8031 \pm 4016$ | $12573^{+7195}_{-2184}$ | $3.05 \pm 0.21$ | $4.36 \pm 0.23$ |
| Gaia DR3 5565849703733107584 | | 248.11 | -14.51 | 105.13 | -37.64 | -0.18 | $25000 \pm 12500$ | $27312^{+2586}_{-1984}$ | $5.39 \pm 0.19$ | $5.64 \pm 0.17$ |
| Gaia DR3 5273521928782122496 | | 279.56 | -14.99 | 127.29 | -65.11 | -0.24 | $14895 \pm 7448$ | $24593^{+1944}_{-1896}$ | $4.32 \pm 0.22$ | $5.35 \pm 0.19$ |
| Gaia DR3 4776572703435004928 | EC04455-5510 | 263.47 | -39.63 | 71.65 | -55.09 | -0.43 | $22990 \pm 11495$ | $34432^{+3706}_{-1335}$ | $5.23 \pm 0.20$ | $5.90 \pm 0.14$ |
| Gaia DR3 4779751185392985984 | 2MASSJ04032174-5439542 | 264.91 | -45.77 | 60.84 | -54.67 | -0.15 | $25000 \pm 12500$ | $12567^{+247}_{-160}$ | $5.39 \pm 0.19$ | $4.34 \pm 0.23$ |
| Gaia DR3 4774297672143006592 | EC04403-5811 | 267.49 | -39.80 | 70.32 | -58.10 | -0.29 | $20522 \pm 10261$ | $34961^{+3459}_{-1749}$ | $5.00 \pm 0.21$ | $5.71 \pm 0.15$ |
| Gaia DR3 4777646032942511872 | LB1741 | 262.02 | -41.34 | 69.06 | -53.73 | -0.45 | $25000 \pm 12500$ | $52101^{+2898}_{-5984}$ | $5.39 \pm 0.19$ | $5.70 \pm 0.15$ |
| Gaia DR3 4774874439006532736 | 2MASSJ04425568-5652052 | 265.86 | -39.83 | 70.73 | -56.87 | -0.11 | $11082 \pm 5541$ | $11805^{+374}_{-268}$ | $3.69 \pm 0.22$ | $3.89 \pm 0.23$ |
| Gaia DR3 4780618390829870848 | LB1735 | 262.03 | -42.10 | 67.80 | -53.59 | -0.22 | $25000 \pm 12500$ | $15390^{+301}_{-196}$ | $5.39 \pm 0.19$ | $4.39 \pm 0.23$ |
| Gaia DR3 4760991214921156224 | EC05155-6100 | 270.12 | -34.97 | 79.04 | -60.96 | -0.34 | $25000 \pm 12500$ | $24321^{+4403}_{-2004}$ | $5.39 \pm 0.19$ | $5.34 \pm 0.19$ |
| Gaia DR3 4777986671092511104 | | 260.74 | -40.64 | 70.47 | -52.88 | -0.54 | $10565 \pm 5282$ | $41591^{+3687}_{-3632}$ | $3.59 \pm 0.22$ | $5.38 \pm 0.15$ |
| Gaia DR3 4775620835603278592 | LB1742 | 265.39 | -40.89 | 68.98 | -56.30 | -0.22 | $25000 \pm 12500$ | $28251^{+1853}_{-1459}$ | $5.39 \pm 0.19$ | $5.61 \pm 0.17$ |
| Gaia DR3 4770357576520350848 | EC05191-5330 | 260.94 | -34.87 | 80.06 | -53.46 | -0.49 | $22946 \pm 11473$ | $44977^{+9451}_{-5431}$ | $5.23 \pm 0.20$ | $5.46 \pm 0.15$ |
| Gaia DR3 4772768599361943936 | EC05112-5208 | 259.27 | -36.07 | 78.10 | -52.09 | -0.49 | $21342 \pm 10671$ | $39275^{+4320}_{-3047}$ | $5.08 \pm 0.20$ | $5.37 \pm 0.15$ |
| Gaia DR3 4778428296810224384 | | 266.30 | -43.01 | 64.97 | -56.44 | -0.44 | $12878 \pm 6439$ | $72853^{+2147}_{-11186}$ | $4.01 \pm 0.22$ | $6.22 \pm 0.15$ |
| Gaia DR3 4770949766611026304 | 2MASSJ05022487-5338471 | 261.31 | -37.51 | 75.60 | -53.65 | -0.00 | $9607 \pm 4803$ | $10671^{+482}_{-379}$ | $3.40 \pm 0.22$ | $3.64 \pm 0.23$ |
| Gaia DR3 4782108194725537920 | LB1710 | 259.19 | -45.69 | 62.76 | -50.85 | -0.42 | $25000 \pm 12500$ | $29984^{+1253}_{-1276}$ | $5.39 \pm 0.19$ | $5.80 \pm 0.15$ |
| Gaia DR3 4782839331302068224 | LB1766 | 261.65 | -37.94 | 74.83 | -53.88 | -0.48 | $25000 \pm 12500$ | $36357^{+1154}_{-910}$ | $5.39 \pm 0.19$ | $5.51 \pm 0.15$ |
| Gaia DR3 4779115049196272256 | LB1723 | 263.27 | -43.04 | 65.90 | -54.29 | -0.18 | $14030 \pm 7015$ | $13792^{+305}_{-183}$ | $4.19 \pm 0.22$ | $4.17 \pm 0.23$ |
| Gaia DR3 4779307463731785088 | LB1721 | 263.13 | -43.22 | 65.66 | -54.15 | -0.17 | $25000 \pm 12500$ | $115000^{+0}_{-37026}$ | $5.39 \pm 0.19$ | $6.60 \pm 0.15$ |
| Gaia DR3 5517170166447120384 | | 263.50 | -10.44 | 119.37 | -49.34 | -0.14 | $9999 \pm 5000$ | $19295^{+6700}_{-4172}$ | $3.48 \pm 0.22$ | $5.06 \pm 0.21$ |
| Gaia DR3 5517247368476550016 | | 263.31 | -11.55 | 117.73 | -49.72 | -0.29 | $25000 \pm 12500$ | $115000^{+0}_{-36455}$ | $5.39 \pm 0.19$ | $6.60 \pm 0.15$ |

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|---|---|---|---|---|---|---|---|---|---|---|
| Gaia DR3 4756263864690143616 | CPD-64481 | 273.88 | -31.09 | 87.00 | -64.38 | -0.42 | $27500 \pm 13750$ | $26872^{+597}_{-356}$ | $5.56 \pm 0.17$ | $5.52 \pm 0.18$ |
| Gaia DR3 4756267369383483904 | | 273.68 | -31.18 | 86.80 | -64.21 | 0.07 | $25000 \pm 12500$ | $35862^{+1760}_{-933}$ | $5.39 \pm 0.19$ | $5.61 \pm 0.15$ |
| Gaia DR3 4756540082618984064 | | 273.22 | -29.79 | 89.97 | -63.81 | -0.37 | $25000 \pm 12500$ | $28315^{+2078}_{-1845}$ | $5.39 \pm 0.19$ | $5.71 \pm 0.16$ |
| Gaia DR3 2899721984206550400 | | 233.69 | -18.86 | 94.21 | -26.48 | -0.62 | $25000 \pm 12500$ | $68190^{+6810}_{-7308}$ | $5.39 \pm 0.19$ | $6.13 \pm 0.15$ |
| Gaia DR3 2899766827964264192 | | 234.76 | -17.62 | 95.92 | -26.96 | 0.02 | $25000 \pm 12500$ | $47466^{+7534}_{-9104}$ | $5.39 \pm 0.19$ | $5.58 \pm 0.15$ |
| Gaia DR3 2898177758783193344 | | 236.74 | -18.79 | 95.46 | -29.15 | 0.22 | $25000 \pm 12500$ | $11476^{+7356}_{-1927}$ | $5.39 \pm 0.19$ | $3.76 \pm 0.23$ |
| Gaia DR3 2898224006991706496 | | 236.82 | -17.89 | 96.46 | -28.88 | -0.50 | $17341 \pm 8670$ | $40258^{+14742}_{-4448}$ | $4.65 \pm 0.22$ | $5.38 \pm 0.15$ |
| Gaia DR3 2896320821082297856 | | 237.36 | -21.72 | 92.54 | -30.71 | -0.32 | $22001 \pm 11000$ | $28325^{+4826}_{-1557}$ | $5.14 \pm 0.20$ | $5.51 \pm 0.18$ |
| Gaia DR3 2896358337620445440 | | 237.07 | -21.18 | 93.02 | -30.27 | -0.45 | $12371 \pm 6186$ | $27679^{+2715}_{-881}$ | $3.92 \pm 0.22$ | $5.57 \pm 0.18$ |
| Gaia DR3 2897695519854993408 | | 235.68 | -19.68 | 94.10 | -28.53 | -0.35 | $19948 \pm 9974$ | $24453^{+2289}_{-2254}$ | $4.95 \pm 0.21$ | $5.16 \pm 0.20$ |
| Gaia DR3 2896507944217551872 | | 237.41 | -20.29 | 94.11 | -30.27 | -0.10 | $12142 \pm 6071$ | $10908^{+1745}_{-463}$ | $3.88 \pm 0.22$ | $3.64 \pm 0.23$ |
| Gaia DR3 2896514747445714944 | | 237.33 | -20.23 | 94.15 | -30.18 | -0.15 | $13632 \pm 6816$ | $13768^{+437}_{-395}$ | $4.13 \pm 0.22$ | $4.12 \pm 0.23$ |
| Gaia DR3 2899570977454318336 | | 234.06 | -20.00 | 93.16 | -27.22 | -0.48 | $25000 \pm 12500$ | $39262^{+3612}_{-2139}$ | $5.39 \pm 0.19$ | $5.46 \pm 0.15$ |
| Gaia DR3 2896588449084891136 | | 237.20 | -19.16 | 95.25 | -29.68 | -0.37 | $25000 \pm 12500$ | $26857^{+3805}_{-3258}$ | $5.39 \pm 0.19$ | $5.31 \pm 0.20$ |
| Gaia DR3 2900136882345512832 | | 233.17 | -18.24 | 94.64 | -25.79 | -0.45 | $13438 \pm 6719$ | $32438^{+2851}_{-1964}$ | $4.10 \pm 0.22$ | $5.89 \pm 0.14$ |
| Gaia DR3 2900237590738880256 | | 233.03 | -16.99 | 95.87 | -25.19 | -0.37 | $25000 \pm 12500$ | $25148^{+1979}_{-1712}$ | $5.39 \pm 0.19$ | $5.30 \pm 0.20$ |
| Gaia DR3 2901209318498381952 | EC05411-3251 | 237.65 | -27.86 | 85.75 | -32.83 | -0.39 | $17930 \pm 8965$ | $25838^{+1185}_{-1164}$ | $4.72 \pm 0.22$ | $5.40 \pm 0.19$ |
| Gaia DR3 2902446956274581888 | | 235.45 | -28.65 | 84.22 | -31.18 | -0.17 | $25000 \pm 12500$ | $16148^{+1424}_{-647}$ | $5.39 \pm 0.19$ | $4.69 \pm 0.22$ |
| Gaia DR3 2902533474095583360 | | 234.58 | -28.58 | 84.04 | -30.43 | -0.44 | $16790 \pm 8395$ | $31398^{+1390}_{-1045}$ | $4.58 \pm 0.22$ | $5.77 \pm 0.16$ |
| Gaia DR3 4828337710870960640 | EC03564-5208 | 261.60 | -47.39 | 59.44 | -52.00 | -0.42 | $23753 \pm 11877$ | $27651^{+1162}_{-803}$ | $5.29 \pm 0.19$ | $5.66 \pm 0.18$ |
| Gaia DR3 4826145628283417344 | EC05138-3314 | 236.42 | -33.49 | 78.92 | -33.19 | -0.41 | $25000 \pm 12500$ | $28793^{+1434}_{-1314}$ | $5.39 \pm 0.19$ | $5.73 \pm 0.16$ |
| Gaia DR3 4826198198683074304 | EC05188-3346 | 237.32 | -32.60 | 80.17 | -33.73 | -0.49 | $20672 \pm 10336$ | $71059^{+3941}_{-17294}$ | $5.02 \pm 0.21$ | $6.20 \pm 0.15$ |
| Gaia DR3 4841570573829662848 | EC04000-4327 | 248.69 | -48.56 | 60.43 | -43.31 | -0.37 | $25000 \pm 12500$ | $24456^{+1104}_{-1068}$ | $5.39 \pm 0.19$ | $5.32 \pm 0.19$ |
| Gaia DR3 4829463267180992256 | LB1695 | 260.11 | -49.22 | 57.13 | -50.50 | -0.26 | $25000 \pm 12500$ | $28603^{+1147}_{-1108}$ | $5.39 \pm 0.19$ | $5.54 \pm 0.18$ |

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|---|---|---|---|---|---|---|---|---|---|---|
| Gaia DR3 4830273916488581248 | | 258.24 | -46.06 | 62.42 | -50.12 | -0.51 | $20440 \pm 10220$ | $61730^{+13269}_{-10730}$ | $5.00 \pm 0.21$ | $5.89 \pm 0.15$ |
| Gaia DR3 4838676758008497536 | | 248.97 | -46.86 | 62.74 | -43.69 | -0.52 | $12096 \pm 6048$ | $51675^{+3324}_{-6898}$ | $3.87 \pm 0.22$ | $5.70 \pm 0.15$ |
| Gaia DR3 4834769716454917888 | | 254.52 | -49.40 | 58.33 | -46.94 | -0.28 | $22759 \pm 11380$ | $30667^{+2775}_{-1757}$ | $5.21 \pm 0.20$ | $5.71 \pm 0.16$ |
| Gaia DR3 4830756636452153984 | HE0410-4901 | 256.43 | -46.02 | 62.88 | -48.90 | -0.24 | $25000 \pm 12500$ | $32366^{+1521}_{-1375}$ | $5.39 \pm 0.19$ | $5.82 \pm 0.15$ |
| Gaia DR3 4827575749313476096 | TonS415 | 233.78 | -32.46 | 79.49 | -30.80 | -0.51 | $25000 \pm 12500$ | $43398^{+9579}_{-3741}$ | $5.39 \pm 0.19$ | $5.44 \pm 0.15$ |
| Gaia DR3 4831348242427292160 | EC03568-4849 | 256.81 | -48.19 | 59.57 | -48.69 | -0.27 | $25000 \pm 12500$ | $18670^{+186}_{-180}$ | $5.39 \pm 0.19$ | $4.98 \pm 0.21$ |
| Gaia DR3 4839693737544526720 | | 247.67 | -43.94 | 66.82 | -42.97 | -0.11 | $12435 \pm 6218$ | $12494^{+303}_{-270}$ | $3.93 \pm 0.22$ | $3.93 \pm 0.23$ |
| Gaia DR3 4844000803764527360 | | 243.91 | -48.59 | 60.77 | -40.16 | -0.46 | $25000 \pm 12500$ | $40929^{+2234}_{-2265}$ | $5.39 \pm 0.19$ | $5.39 \pm 0.15$ |
| Gaia DR3 4844181295470077952 | HE0405-3839 | 241.92 | -47.87 | 61.76 | -38.86 | -0.40 | $25000 \pm 12500$ | $25855^{+949}_{-709}$ | $5.39 \pm 0.19$ | $5.49 \pm 0.18$ |
| Gaia DR3 5320235642361920512 | | 268.40 | -12.42 | 120.45 | -54.50 | 0.02 | $25000 \pm 12500$ | $21740^{+3044}_{-2958}$ | $5.39 \pm 0.19$ | $5.30 \pm 0.20$ |
| Gaia DR3 2936588029269162624 | | 231.13 | -16.10 | 95.99 | -23.17 | -0.04 | $11056 \pm 5528$ | $10727^{+1122}_{-502}$ | $3.68 \pm 0.22$ | $3.86 \pm 0.23$ |
| Gaia DR3 5320794434787798656 | | 267.85 | -10.44 | 122.86 | -53.03 | 0.29 | $25000 \pm 12500$ | $32698^{+1278}_{-1150}$ | $5.39 \pm 0.19$ | $5.82 \pm 0.15$ |
| Gaia DR3 5551357281484186496 | | 257.97 | -21.33 | 100.85 | -48.80 | -0.29 | $25000 \pm 12500$ | $68722^{+6277}_{-15805}$ | $5.39 \pm 0.19$ | $6.16 \pm 0.15$ |
| Gaia DR3 5552604814865254400 | | 255.85 | -20.53 | 101.07 | -46.67 | -0.27 | $25000 \pm 12500$ | $26505^{+3496}_{-1872}$ | $5.39 \pm 0.19$ | $5.52 \pm 0.18$ |
| Gaia DR3 5552637490976572672 | | 255.55 | -19.65 | 102.16 | -46.12 | -0.40 | $18376 \pm 9188$ | $40615^{+14384}_{-5038}$ | $4.78 \pm 0.21$ | $5.37 \pm 0.15$ |
| Gaia DR3 5551496124891134592 | | 257.51 | -20.34 | 102.06 | -48.09 | -0.37 | $25000 \pm 12500$ | $38914^{+16086}_{-7759}$ | $5.39 \pm 0.19$ | $5.37 \pm 0.20$ |
| Gaia DR3 5552787260779982336 | | 255.08 | -20.86 | 100.30 | -46.09 | -0.66 | $10647 \pm 5324$ | $57756^{+12338}_{-6755}$ | $3.61 \pm 0.22$ | $5.90 \pm 0.15$ |
| Gaia DR3 5554156496352728192 | | 256.22 | -28.01 | 90.41 | -48.85 | -0.45 | $19993 \pm 9996$ | $44000^{+5779}_{-4387}$ | $4.95 \pm 0.21$ | $5.51 \pm 0.15$ |
| Gaia DR3 5548959246623432832 | | 259.82 | -27.39 | 92.23 | -51.87 | -0.41 | $19829 \pm 9914$ | $44000^{+7548}_{-3478}$ | $4.93 \pm 0.21$ | $5.45 \pm 0.15$ |
| Gaia DR3 5551912225618217600 | TYC8107-1947-1 | 257.20 | -23.59 | 97.24 | -48.74 | -0.15 | $10000 \pm 5000$ | $15303^{+679}_{-533}$ | $3.48 \pm 0.22$ | $4.33 \pm 0.23$ |
| Gaia DR3 5551984518508239744 | | 257.06 | -22.63 | 98.60 | -48.37 | -0.25 | $25000 \pm 12500$ | $25719^{+1011}_{-963}$ | $5.39 \pm 0.19$ | $5.44 \pm 0.19$ |
| Gaia DR3 5552064714137487872 | | 256.65 | -22.34 | 98.85 | -47.92 | -0.33 | $25000 \pm 12500$ | $22863^{+1766}_{-1678}$ | $5.39 \pm 0.19$ | $5.19 \pm 0.20$ |
| Gaia DR3 5549462376272389632 | | 259.00 | -24.60 | 96.35 | -50.58 | -0.26 | $25000 \pm 12500$ | $22591^{+1936}_{-1802}$ | $5.39 \pm 0.19$ | $5.00 \pm 0.21$ |
| Gaia DR3 5553638939909612416 | | 256.28 | -25.25 | 94.51 | -48.33 | -0.23 | $17352 \pm 8676$ | $17948^{+1330}_{-1151}$ | $4.65 \pm 0.22$ | $4.70 \pm 0.22$ |

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|---|---|---|---|---|---|---|---|---|---|---|
| Gaia DR3 5477301943538453632 | | 273.14 | -27.24 | 95.69 | -63.56 | -0.48 | $25000 \pm 12500$ | $41889^{+13111}_{-5318}$ | $5.39 \pm 0.19$ | $5.37 \pm 0.15$ |
| Gaia DR3 5477422099543150592 | V*RRPic | 272.35 | -25.67 | 98.90 | -62.64 | 0.01 | $25000 \pm 12500$ | $24362^{+1888}_{-1973}$ | $5.39 \pm 0.19$ | $5.03 \pm 0.21$ |
| Gaia DR3 5477442199990194432 | | 272.46 | -26.00 | 98.23 | -62.79 | -0.40 | $25000 \pm 12500$ | $39000^{+16000}_{-6903}$ | $5.39 \pm 0.19$ | $5.39 \pm 0.15$ |
| Gaia DR3 5477508583007863936 | | 274.34 | -29.78 | 90.04 | -64.78 | 0.20 | $8263 \pm 4132$ | $25477^{+1880}_{-1621}$ | $3.10 \pm 0.21$ | $5.36 \pm 0.19$ |
| Gaia DR3 5476889454880643840 | | 273.75 | -28.55 | 92.84 | -64.22 | -0.41 | $9999 \pm 5000$ | $41330^{+11168}_{-4073}$ | $3.48 \pm 0.22$ | $5.39 \pm 0.15$ |
| Gaia DR3 5478496425482790912 | TYC8894-1508-1 | 271.12 | -26.17 | 97.46 | -61.62 | -0.25 | $18064 \pm 9032$ | $19770^{+230}_{-1733}$ | $4.74 \pm 0.22$ | $4.81 \pm 0.22$ |
| Gaia DR3 5269179648124709632 | | 278.47 | -21.27 | 112.28 | -66.97 | -0.33 | $9998 \pm 4999$ | $38431^{+4792}_{-4428}$ | $3.48 \pm 0.22$ | $5.37 \pm 0.15$ |
| Gaia DR3 5268879618888530304 | | 279.40 | -21.88 | 111.51 | -67.99 | -0.29 | $16208 \pm 8104$ | $26625^{+2339}_{-2032}$ | $4.51 \pm 0.22$ | $5.46 \pm 0.19$ |
| Gaia DR3 5268950842329277440 | | 279.42 | -22.86 | 109.00 | -68.30 | -0.23 | $25000 \pm 12500$ | $25683^{+1955}_{-1982}$ | $5.39 \pm 0.19$ | $5.45 \pm 0.19$ |
| Gaia DR3 5315767261466022784 | | 271.76 | -12.12 | 123.88 | -57.16 | -0.05 | $25000 \pm 12500$ | $115000^{+0}_{-35572}$ | $5.39 \pm 0.19$ | $6.60 \pm 0.15$ |
| Gaia DR3 5315548321213848832 | | 272.60 | -11.48 | 125.71 | -57.51 | -0.13 | $25000 \pm 12500$ | $21449^{+33551}_{-6448}$ | $5.39 \pm 0.19$ | $4.96 \pm 0.21$ |
| Gaia DR3 5315944866955667072 | | 272.58 | -10.69 | 126.91 | -57.07 | -0.07 | $25000 \pm 12500$ | $26714^{+9718}_{-5724}$ | $5.39 \pm 0.19$ | $5.76 \pm 0.16$ |
| Gaia DR3 5315950875607819136 | | 272.58 | -10.62 | 127.01 | -57.02 | -0.21 | $25000 \pm 12500$ | $94272^{+4728}_{-23271}$ | $5.39 \pm 0.19$ | $6.52 \pm 0.15$ |
| Gaia DR3 4799674297432740224 | | 249.50 | -33.50 | 81.29 | -43.93 | -0.56 | $12678 \pm 6339$ | $77143^{+14255}_{-6143}$ | $3.98 \pm 0.22$ | $6.31 \pm 0.15$ |
| Gaia DR3 4806399636399070080 | | 246.51 | -32.11 | 82.67 | -41.25 | -0.46 | $25000 \pm 12500$ | $29660^{+2337}_{-862}$ | $5.39 \pm 0.19$ | $5.70 \pm 0.17$ |
| Gaia DR3 4799881521014158976 | EC05205-4514 | 250.93 | -34.21 | 80.49 | -45.19 | -0.42 | $19150 \pm 9575$ | $35940^{+3594}_{-1857}$ | $4.86 \pm 0.21$ | $5.65 \pm 0.16$ |
| Gaia DR3 4806929738442417664 | EC05199-4116 | 246.17 | -33.80 | 80.39 | -41.23 | -0.23 | $17192 \pm 8596$ | $17537^{+561}_{-295}$ | $4.63 \pm 0.22$ | $4.90 \pm 0.22$ |
| Gaia DR3 4804695423438691200 | V*TXCol | 246.77 | -29.73 | 85.83 | -41.03 | 0.30 | $25000 \pm 12500$ | $13478^{+1121}_{-785}$ | $5.39 \pm 0.19$ | $4.10 \pm 0.23$ |
| Gaia DR3 4807141806747759616 | | 245.83 | -32.87 | 81.55 | -40.81 | -0.39 | $19336 \pm 9668$ | $25726^{+1962}_{-1409}$ | $4.88 \pm 0.21$ | $5.46 \pm 0.19$ |
| Gaia DR3 4802807119594209152 | | 248.61 | -30.08 | 85.78 | -42.66 | -0.44 | $18154 \pm 9077$ | $42214^{+12786}_{-5108}$ | $4.75 \pm 0.22$ | $5.42 \pm 0.15$ |
| Gaia DR3 4800840024572132608 | | 255.18 | -28.14 | 89.96 | -47.97 | -0.49 | $15923 \pm 7961$ | $64214^{+10786}_{-13213}$ | $4.47 \pm 0.22$ | $6.04 \pm 0.15$ |
| Gaia DR3 4807413489198766848 | EC05198-4005 | 244.76 | -33.64 | 80.38 | -40.04 | -0.17 | $13567 \pm 6783$ | $13242^{+374}_{-292}$ | $4.12 \pm 0.22$ | $4.07 \pm 0.23$ |
| Gaia DR3 4805129283855235328 | | 245.69 | -28.73 | 86.86 | -39.90 | 0.23 | $7638 \pm 3819$ | $29374^{+5406}_{-1702}$ | $2.95 \pm 0.20$ | $5.72 \pm 0.16$ |
| Gaia DR3 4803001355195099648 | HE0539-4246 | 248.64 | -30.46 | 85.28 | -42.76 | -0.34 | $23279 \pm 11640$ | $24276^{+677}_{-975}$ | $5.25 \pm 0.19$ | $5.30 \pm 0.20$ |

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|---|---|---|---|---|---|---|---|---|---|---|
| Gaia DR3 4801239868847420160 | | 252.77 | -29.50 | 87.47 | -46.12 | -0.39 | $15042 \pm 7521$ | $28000^{+3911}_{-1459}$ | $4.34 \pm 0.22$ | $5.61 \pm 0.17$ |
| Gaia DR3 4801267700235568768 | | 253.01 | -29.05 | 88.16 | -46.25 | -0.43 | $25000 \pm 12500$ | $39999^{+5871}_{-2933}$ | $5.39 \pm 0.19$ | $5.37 \pm 0.15$ |
| Gaia DR3 4799346819062585984 | HE0532-4503 | 251.02 | -32.14 | 83.42 | -45.03 | -0.37 | $19957 \pm 9979$ | $26239^{+1390}_{-1370}$ | $4.95 \pm 0.21$ | $5.54 \pm 0.18$ |
| Gaia DR3 4801692936357851776 | | 252.15 | -28.71 | 88.44 | -45.44 | -0.32 | $25000 \pm 12500$ | $27375^{+1461}_{-2813}$ | $5.39 \pm 0.19$ | $5.52 \pm 0.18$ |
| Gaia DR3 4799452818855840512 | | 251.24 | -33.31 | 81.81 | -45.36 | -0.04 | $11180 \pm 5590$ | $11592^{+255}_{-215}$ | $3.71 \pm 0.22$ | $3.77 \pm 0.23$ |
| Gaia DR3 4810509439064817152 | EC05043-4538 | 251.15 | -37.07 | 76.45 | -45.58 | -0.04 | $9999 \pm 4999$ | $35211^{+5263}_{-4219}$ | $3.48 \pm 0.22$ | $5.80 \pm 0.15$ |
| Gaia DR3 5297646553926893952 | | 279.52 | -13.07 | 130.93 | -63.98 | -0.11 | $19626 \pm 9813$ | $24498^{+1579}_{-906}$ | $4.91 \pm 0.21$ | $5.40 \pm 0.19$ |
| Gaia DR3 5298241355354315136 | | 279.07 | -10.65 | 134.54 | -62.15 | -0.29 | $25000 \pm 12500$ | $30786^{+17018}_{-8458}$ | $5.39 \pm 0.19$ | $5.79 \pm 0.16$ |
| Gaia DR3 5298005303957937280 | | 279.56 | -10.89 | 134.81 | -62.67 | -0.24 | $25000 \pm 12500$ | $24437^{+9802}_{-7473}$ | $5.39 \pm 0.19$ | $5.69 \pm 0.17$ |
| Gaia DR3 5298070003345815680 | | 279.81 | -10.21 | 136.28 | -62.42 | -0.15 | $11628 \pm 5814$ | $22987^{+4923}_{-4087}$ | $3.79 \pm 0.22$ | $5.30 \pm 0.20$ |
| Gaia DR3 5297808315274264576 | | 279.17 | -11.86 | 132.62 | -62.99 | -0.22 | $9998 \pm 4999$ | $32820^{+10028}_{-7362}$ | $3.48 \pm 0.22$ | $5.78 \pm 0.16$ |
| Gaia DR3 5298141192427581312 | | 279.27 | -10.23 | 135.49 | -62.03 | -0.39 | $25000 \pm 12500$ | $115000^{+0}_{-40000}$ | $5.39 \pm 0.19$ | $6.60 \pm 0.15$ |
| Gaia DR3 5536165466764699264 | | 255.36 | -10.44 | 113.87 | -42.31 | 0.25 | $25000 \pm 12500$ | $47724^{+7275}_{-11612}$ | $5.39 \pm 0.19$ | $5.53 \pm 0.15$ |
| Gaia DR3 5536189759099210496 | | 254.98 | -10.31 | 113.80 | -41.92 | 0.06 | $25000 \pm 12500$ | $40353^{+14646}_{-4325}$ | $5.39 \pm 0.19$ | $5.38 \pm 0.15$ |
| Gaia DR3 5536198658273352832 | | 255.51 | -10.13 | 114.34 | -42.30 | -0.03 | $11525 \pm 5762$ | $37455^{+8907}_{-5063}$ | $3.77 \pm 0.22$ | $5.44 \pm 0.17$ |
| Gaia DR3 2883098025526647552 | | 245.43 | -24.84 | 91.66 | -38.72 | -0.40 | $25000 \pm 12500$ | $37904^{+6687}_{-3962}$ | $5.39 \pm 0.19$ | $5.39 \pm 0.19$ |
| Gaia DR3 2884846420813793152 | | 244.48 | -24.02 | 92.35 | -37.66 | -0.22 | $25000 \pm 12500$ | $22555^{+370}_{-351}$ | $5.39 \pm 0.19$ | $5.22 \pm 0.20$ |
| Gaia DR3 2886359039575761152 | | 241.60 | -22.68 | 92.96 | -34.74 | -0.50 | $9999 \pm 5000$ | $34350^{+7697}_{-2072}$ | $3.48 \pm 0.22$ | $5.89 \pm 0.14$ |
| Gaia DR3 2888241884518643200 | EC05387-3558 | 240.95 | -29.15 | 85.13 | -35.96 | 0.07 | $25000 \pm 12500$ | $18511^{+1488}_{-1305}$ | $5.39 \pm 0.19$ | $4.82 \pm 0.22$ |
| Gaia DR3 2891330099147135360 | | 242.96 | -20.98 | 95.42 | -35.38 | -0.37 | $16114 \pm 8057$ | $26996^{+2745}_{-2194}$ | $4.50 \pm 0.22$ | $5.40 \pm 0.19$ |
| Gaia DR3 2883459794914510848 | | 245.74 | -27.33 | 88.65 | -39.62 | -0.20 | $25000 \pm 12500$ | $50976^{+4023}_{-7472}$ | $5.39 \pm 0.19$ | $5.69 \pm 0.15$ |
| Gaia DR3 2890227014106160512 | | 239.37 | -25.49 | 88.98 | -33.64 | -0.37 | $9998 \pm 4999$ | $77723^{+21277}_{-6722}$ | $3.48 \pm 0.22$ | $6.27 \pm 0.15$ |
| Gaia DR3 2885564848583681152 | | 242.40 | -22.08 | 93.94 | -35.25 | -0.37 | $25000 \pm 12500$ | $24642^{+1411}_{-1587}$ | $5.39 \pm 0.19$ | $5.37 \pm 0.19$ |
| Gaia DR3 2885588247565266176 | | 242.34 | -21.30 | 94.82 | -34.94 | 0.27 | $25000 \pm 12500$ | $115000^{+0}_{-40000}$ | $5.39 \pm 0.19$ | $6.60 \pm 0.15$ |

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|---|---|---|---|---|---|---|---|---|---|---|
| Gaia DR3 2889243264733922560 | | 240.60 | -24.08 | 90.99 | -34.29 | -0.43 | $25000 \pm 12500$ | $34580^{+4410}_{-3751}$ | $5.39 \pm 0.19$ | $5.86 \pm 0.15$ |
| Gaia DR3 2884197365355701888 | | 243.52 | -24.74 | 91.17 | -37.02 | -0.05 | $25000 \pm 12500$ | $12000^{+280}_{-292}$ | $5.39 \pm 0.19$ | $3.90 \pm 0.23$ |
| Gaia DR3 2890820995200599552 | | 238.16 | -24.49 | 89.73 | -32.29 | -0.09 | $11642 \pm 5821$ | $11756^{+403}_{-349}$ | $3.79 \pm 0.22$ | $3.73 \pm 0.23$ |
| Gaia DR3 2889426745736892032 | | 239.99 | -25.56 | 89.09 | -34.19 | 0.24 | $25000 \pm 12500$ | $36746^{+6933}_{-3095}$ | $5.39 \pm 0.19$ | $5.43 \pm 0.15$ |
| Gaia DR3 2884425136061362560 | | 243.11 | -25.50 | 90.14 | -36.88 | -0.07 | $25000 \pm 12500$ | $12078^{+397}_{-207}$ | $5.39 \pm 0.19$ | $4.00 \pm 0.23$ |
| Gaia DR3 2884515983209409152 | | 242.37 | -25.79 | 89.56 | -36.31 | 0.27 | $25000 \pm 12500$ | $115000^{+0}_{-25865}$ | $5.39 \pm 0.19$ | $6.60 \pm 0.15$ |
| Gaia DR3 4873216339543617920 | | 236.71 | -38.82 | 72.68 | -34.43 | -0.16 | $13388 \pm 6694$ | $13414^{+962}_{-534}$ | $4.09 \pm 0.22$ | $4.01 \pm 0.23$ |
| Gaia DR3 4876527450091397376 | | 231.40 | -35.76 | 75.23 | -29.69 | -0.42 | $25000 \pm 12500$ | $27810^{+1477}_{-1434}$ | $5.39 \pm 0.19$ | $5.52 \pm 0.18$ |
| Gaia DR3 4873825155451139968 | EC04528-3249 | 234.79 | -37.71 | 73.68 | -32.75 | 0.07 | $25000 \pm 12500$ | $115000^{+0}_{-40000}$ | $5.39 \pm 0.19$ | $6.68 \pm 0.15$ |
| Gaia DR3 4874328529914592000 | EC04415-3304 | 234.54 | -40.09 | 70.85 | -32.98 | -0.11 | $12483 \pm 6242$ | $12212^{+171}_{-153}$ | $3.94 \pm 0.22$ | $3.88 \pm 0.23$ |
| Gaia DR3 4877454200954089088 | EC04405-3211 | 233.36 | -40.14 | 70.61 | -32.10 | -0.48 | $25000 \pm 12500$ | $45092^{+2826}_{-2320}$ | $5.39 \pm 0.19$ | $5.50 \pm 0.15$ |
| Gaia DR3 4875239440938880896 | EC04593-3210 | 234.33 | -36.23 | 75.31 | -32.11 | -0.42 | $19987 \pm 9994$ | $30735^{+1790}_{-1498}$ | $4.95 \pm 0.21$ | $5.74 \pm 0.16$ |
| Gaia DR3 4764698493251416576 | HE0502-5526 | 263.45 | -37.28 | 75.75 | -55.37 | -0.20 | $15976 \pm 7988$ | $16610^{+708}_{-412}$ | $4.48 \pm 0.22$ | $4.56 \pm 0.22$ |
| Gaia DR3 4760608825392920832 | EC05077-6225 | 271.97 | -35.71 | 77.06 | -62.35 | -0.14 | $13574 \pm 6787$ | $13744^{+284}_{-256}$ | $4.12 \pm 0.22$ | $4.15 \pm 0.23$ |
| Gaia DR3 4759495088833118976 | BPSCS31076-0047 | 269.41 | -33.47 | 82.20 | -60.51 | -0.43 | $25000 \pm 12500$ | $33566^{+1028}_{-904}$ | $5.39 \pm 0.19$ | $5.86 \pm 0.15$ |
| Gaia DR3 4764871219656633600 | V*AHPic | 268.34 | -29.92 | 89.30 | -59.59 | 0.14 | $25000 \pm 12500$ | $26699^{+2829}_{-2697}$ | $5.39 \pm 0.19$ | $5.50 \pm 0.18$ |
| Gaia DR3 4759743097424317184 | LB3464 | 269.17 | -31.92 | 85.35 | -60.35 | -0.13 | $25000 \pm 12500$ | $41493^{+13360}_{-4202}$ | $5.39 \pm 0.19$ | $5.37 \pm 0.15$ |
| Gaia DR3 4759791647735084544 | EC05397-5942 | 268.37 | -32.05 | 85.10 | -59.68 | -0.37 | $19971 \pm 9985$ | $33752^{+2671}_{-4472}$ | $4.95 \pm 0.21$ | $5.92 \pm 0.14$ |
| Gaia DR3 4760884321775270656 | EC05201-6132 | 270.70 | -34.36 | 80.18 | -61.50 | -0.39 | $25000 \pm 12500$ | $26704^{+998}_{-963}$ | $5.39 \pm 0.19$ | $5.47 \pm 0.18$ |
| Gaia DR3 4765261099608324480 | TYC8532-976-1 | 266.77 | -30.95 | 87.19 | -58.29 | -0.39 | $33000 \pm 16500$ | $29899^{+1949}_{-1514}$ | $5.84 \pm 0.14$ | $5.70 \pm 0.17$ |
| Gaia DR3 4760975959197354496 | EC05177-6104 | 270.17 | -34.70 | 79.58 | -61.03 | -0.40 | $25000 \pm 12500$ | $27878^{+1823}_{-1441}$ | $5.39 \pm 0.19$ | $5.58 \pm 0.18$ |
| Gaia DR3 4760105592664097280 | V*BBDor | 267.50 | -33.46 | 82.37 | -58.91 | 0.04 | $25000 \pm 12500$ | $29000^{+14499}_{-4450}$ | $5.39 \pm 0.19$ | $5.65 \pm 0.17$ |
| Gaia DR3 4761055360256547072 | | 269.38 | -34.08 | 80.97 | -60.44 | -0.43 | $9999 \pm 4999$ | $32296^{+4186}_{-3031}$ | $3.48 \pm 0.22$ | $5.83 \pm 0.15$ |
| Gaia DR3 4760261139199793792 | EC05275-5809 | 266.55 | -33.64 | 82.08 | -58.11 | -0.39 | $25000 \pm 12500$ | $26637^{+1626}_{-1545}$ | $5.39 \pm 0.19$ | $5.52 \pm 0.18$ |

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|---|---|---|---|---|---|---|---|---|---|---|
| Gaia DR3 4761236818330604800 | | 269.45 | -35.92 | 77.26 | -60.30 | 0.03 | $10688 \pm 5344$ | $15536^{+3102}_{-1481}$ | $3.61 \pm 0.22$ | $4.22 \pm 0.23$ |
| Gaia DR3 4761338042120188416 | EC05147-5940 | 268.50 | -35.20 | 78.87 | -59.62 | -0.41 | $25000 \pm 12500$ | $26251^{+1322}_{-707}$ | $5.39 \pm 0.19$ | $5.56 \pm 0.18$ |
| Gaia DR3 4763999135136426880 | EC04577-5728 | 266.10 | -37.64 | 74.66 | -57.41 | -0.27 | $25000 \pm 12500$ | $19687^{+313}_{-455}$ | $5.39 \pm 0.19$ | $4.92 \pm 0.21$ |
| Gaia DR3 4764154612952739456 | EC05012-5641 | 265.03 | -37.26 | 75.55 | -56.62 | -0.37 | $9998 \pm 4999$ | $24659^{+4292}_{-1516}$ | $3.48 \pm 0.22$ | $5.33 \pm 0.19$ |
| Gaia DR3 4766197127600334848 | | 265.16 | -32.31 | 84.57 | -56.96 | 0.29 | $10415 \pm 5207$ | $13999^{+6000}_{-2035}$ | $3.56 \pm 0.22$ | $4.34 \pm 0.23$ |
| Gaia DR3 4766218190119756928 | V*TWPic | 266.42 | -32.78 | 83.71 | -58.03 | 0.27 | $25000 \pm 12500$ | $24999^{+5111}_{-4826}$ | $5.39 \pm 0.19$ | $4.96 \pm 0.21$ |
| Gaia DR3 4766451767621692288 | EC05281-5635 | 264.67 | -33.58 | 82.26 | -56.55 | -0.38 | $25000 \pm 12500$ | $24319^{+1213}_{-1097}$ | $5.39 \pm 0.19$ | $5.35 \pm 0.19$ |
| Gaia DR3 4768581590363727616 | EC05313-5402 | 261.63 | -33.08 | 83.10 | -54.00 | 0.19 | $25000 \pm 12500$ | $31304^{+4296}_{-3138}$ | $5.39 \pm 0.19$ | $5.70 \pm 0.17$ |
| Gaia DR3 5567153479706896512 | | 253.48 | -24.49 | 94.70 | -45.69 | -0.43 | $9999 \pm 5000$ | $49674^{+5326}_{-8960}$ | $3.48 \pm 0.22$ | $5.65 \pm 0.15$ |
| Gaia DR3 5568867519552983808 | | 252.00 | -21.97 | 97.58 | -43.69 | -0.11 | $19331 \pm 9666$ | $28084^{+7228}_{-3126}$ | $4.88 \pm 0.21$ | $5.52 \pm 0.18$ |
| Gaia DR3 5570041179495992704 | | 250.19 | -21.61 | 97.37 | -41.98 | -0.48 | $25000 \pm 12500$ | $69622^{+5377}_{-18622}$ | $5.39 \pm 0.19$ | $6.11 \pm 0.15$ |
| Gaia DR3 5567783057489973120 | | 252.14 | -25.66 | 92.67 | -44.79 | -0.08 | $13839 \pm 6920$ | $13626^{+223}_{-210}$ | $4.16 \pm 0.22$ | $4.15 \pm 0.23$ |
| Gaia DR3 5569370443043339392 | | 251.21 | -20.33 | 99.42 | -42.49 | -0.39 | $15850 \pm 7925$ | $35050^{+11224}_{-6113}$ | $4.46 \pm 0.22$ | $5.72 \pm 0.15$ |
| Gaia DR3 5570524827173062656 | | 248.90 | -20.29 | 98.53 | -40.43 | -0.07 | $25000 \pm 12500$ | $26656^{+2055}_{-1727}$ | $5.39 \pm 0.19$ | $5.51 \pm 0.18$ |
| Gaia DR3 5569488881061691392 | | 250.78 | -19.47 | 100.34 | -41.82 | -0.15 | $25000 \pm 12500$ | $21083^{+408}_{-421}$ | $5.39 \pm 0.19$ | $4.96 \pm 0.21$ |
| Gaia DR3 5570677075174060288 | | 249.05 | -21.09 | 97.59 | -40.81 | -0.35 | $17744 \pm 8872$ | $26671^{+6072}_{-3036}$ | $4.70 \pm 0.22$ | $5.49 \pm 0.18$ |
| Gaia DR3 5566516591892999680 | | 254.45 | -27.15 | 91.22 | -47.14 | -0.38 | $25000 \pm 12500$ | $31701^{+7413}_{-3077}$ | $5.39 \pm 0.19$ | $5.63 \pm 0.17$ |
| Gaia DR3 5566667362425066624 | | 254.05 | -26.66 | 91.83 | -46.69 | -0.37 | $25000 \pm 12500$ | $33218^{+2988}_{-3229}$ | $5.39 \pm 0.19$ | $5.80 \pm 0.15$ |
| Gaia DR3 5565971268488957952 | | 248.83 | -13.57 | 106.57 | -37.90 | -0.23 | $12455 \pm 6227$ | $23764^{+3037}_{-3201}$ | $3.94 \pm 0.22$ | $5.52 \pm 0.18$ |
| Gaia DR3 5566000474265771008 | | 248.62 | -13.22 | 106.87 | -37.56 | -0.16 | $9999 \pm 5000$ | $23337^{+5137}_{-4409}$ | $3.48 \pm 0.22$ | $5.22 \pm 0.20$ |
| Gaia DR3 5572008721193797632 | | 248.70 | -23.93 | 93.87 | -41.34 | 0.24 | $25000 \pm 12500$ | $16580^{+1382}_{-1107}$ | $5.39 \pm 0.19$ | $4.53 \pm 0.23$ |
| Gaia DR3 4757990991286498432 | | 270.33 | -33.80 | 81.42 | -61.25 | -0.36 | $25000 \pm 12500$ | $23567^{+972}_{-1362}$ | $5.39 \pm 0.19$ | $5.26 \pm 0.20$ |
| Gaia DR3 5480515850386260864 | | 269.40 | -21.36 | 106.18 | -58.98 | -0.28 | $18729 \pm 9364$ | $17567^{+2433}_{-362}$ | $4.82 \pm 0.21$ | $4.69 \pm 0.22$ |
| Gaia DR3 5479385037036573440 | | 271.03 | -20.94 | 107.90 | -60.30 | 0.06 | $25000 \pm 12500$ | $19608^{+2351}_{-1946}$ | $5.39 \pm 0.19$ | $4.96 \pm 0.21$ |

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|---|---|---|---|---|---|---|---|---|---|
| Gaia DR3 5481802760026598400 | 269.73 | -27.21 | 94.95 | -60.55 | -0.43 | $19515 \pm 9757$ | $39329^{+13083}_{-6713}$ | $4.90 \pm 0.21$ | $5.40 \pm 0.15$ |
| Gaia DR3 5482367496686173440 | 269.52 | -29.31 | 90.66 | -60.58 | -0.10 | $12634 \pm 6317$ | $12222^{+208}_{-181}$ | $3.97 \pm 0.22$ | $3.90 \pm 0.23$ |
| Gaia DR3 5480920882982326272 | 272.22 | -29.11 | 91.39 | -62.92 | -0.37 | $9999 \pm 5000$ | $31686^{+659}_{-739}$ | $3.48 \pm 0.22$ | $5.79 \pm 0.16$ |
| Gaia DR3 5483870494722269696 | 267.71 | -21.38 | 105.25 | -57.49 | -0.06 | $16171 \pm 8085$ | $15785^{+1540}_{-996}$ | $4.50 \pm 0.22$ | $4.35 \pm 0.23$ |
| Gaia DR3 5482554001345846272 | 268.27 | -27.82 | 93.42 | -59.34 | -0.42 | $25000 \pm 12500$ | $30876^{+3468}_{-2433}$ | $5.39 \pm 0.19$ | $5.60 \pm 0.17$ |
| Gaia DR3 5482630348684724736 | 268.73 | -26.68 | 95.75 | -59.59 | -0.46 | $15979 \pm 7990$ | $115000^{+0}_{-39875}$ | $4.48 \pm 0.22$ | $6.60 \pm 0.15$ |
| Gaia DR3 5481089898534325760 | 270.99 | -27.55 | 94.54 | -61.70 | -0.32 | $9999 \pm 5000$ | $24045^{+1288}_{-1359}$ | $3.48 \pm 0.22$ | $5.26 \pm 0.20$ |
| Gaia DR3 5483995358011225472 | 267.68 | -22.79 | 102.70 | -57.86 | -0.35 | $25000 \pm 12500$ | $50841^{+4158}_{-15590}$ | $5.39 \pm 0.19$ | $5.63 \pm 0.15$ |
| Gaia DR3 5482679105153403904 | 268.60 | -26.58 | 95.90 | -59.46 | -0.29 | $25000 \pm 12500$ | $26052^{+3071}_{-2725}$ | $5.39 \pm 0.19$ | $5.47 \pm 0.18$ |
| Gaia DR3 5484055590632640512 | 267.30 | -22.70 | 102.69 | -57.49 | -0.27 | $25000 \pm 12500$ | $27404^{+2692}_{-2058}$ | $5.39 \pm 0.19$ | $5.44 \pm 0.19$ |
| Gaia DR3 5482785311104898816 | 268.32 | -26.19 | 96.58 | -59.15 | -0.12 | $25000 \pm 12500$ | $35698^{+3268}_{-2720}$ | $5.39 \pm 0.19$ | $5.43 \pm 0.15$ |
| Gaia DR3 5482955799829681792 | 267.63 | -26.89 | 95.05 | -58.65 | -0.50 | $25000 \pm 12500$ | $51449^{+3551}_{-9275}$ | $5.39 \pm 0.19$ | $5.69 \pm 0.15$ |
| Gaia DR3 5483075753973119872 | 267.30 | -25.88 | 96.86 | -58.20 | -0.29 | $25000 \pm 12500$ | $29011^{+3324}_{-1775}$ | $5.39 \pm 0.19$ | $5.64 \pm 0.17$ |
| Gaia DR3 5481509632801731840 | 270.29 | -26.35 | 96.85 | -60.92 | -0.41 | $19168 \pm 9584$ | $48066^{+6934}_{-11327}$ | $4.86 \pm 0.21$ | $5.58 \pm 0.15$ |
| Gaia DR3 5484435197022249216 | 267.34 | -23.38 | 101.49 | -57.70 | -0.20 | $19503 \pm 9751$ | $26275^{+1780}_{-1683}$ | $4.90 \pm 0.21$ | $5.42 \pm 0.19$ |
| Gaia DR3 5484569745460474880 | 266.92 | -24.62 | 99.07 | -57.61 | -0.35 | $18410 \pm 9205$ | $31308^{+4256}_{-3054}$ | $4.78 \pm 0.21$ | $5.73 \pm 0.16$ |
| Gaia DR3 5480083536158472960 | 270.18 | -24.16 | 101.20 | -60.41 | -0.40 | $25000 \pm 12500$ | $48927^{+6072}_{-10215}$ | $5.39 \pm 0.19$ | $5.69 \pm 0.15$ |
| Gaia DR3 5478854282158041600 | 271.97 | -23.82 | 102.65 | -61.92 | -0.04 | $13248 \pm 6624$ | $14027^{+748}_{-580}$ | $4.07 \pm 0.22$ | $4.07 \pm 0.23$ |
| Gaia DR3 5534967239610063616 | 257.40 | -10.86 | 114.63 | -44.28 | -0.30 | $25000 \pm 12500$ | $27994^{+2049}_{-1759}$ | $5.39 \pm 0.19$ | $5.61 \pm 0.17$ |
| Gaia DR3 5535218198838613248 | 256.76 | -10.96 | 114.10 | -43.77 | 0.15 | $13021 \pm 6510$ | $26791^{+10023}_{-1719}$ | $4.03 \pm 0.22$ | $5.52 \pm 0.18$ |
| Gaia DR3 5289487181214663808 | 276.28 | -16.57 | 120.51 | -63.18 | -0.28 | $12461 \pm 6231$ | $45092^{+9908}_{-7755}$ | $3.94 \pm 0.22$ | $5.49 \pm 0.15$ |
| Gaia DR3 5291635386417224960 | 272.49 | -12.92 | 123.32 | -58.19 | -0.17 | $25000 \pm 12500$ | $36000^{+17523}_{-7819}$ | $5.39 \pm 0.19$ | $5.73 \pm 0.15$ |
| Gaia DR3 5290105072390306304 | 275.25 | -13.95 | 124.33 | -61.02 | -0.03 | $16131 \pm 8066$ | $19000^{+1000}_{-2968}$ | $4.50 \pm 0.22$ | $4.69 \pm 0.22$ |
| Gaia DR3 5289520029124322816 | 276.04 | -16.22 | 120.94 | -62.81 | 0.08 | $12708 \pm 6354$ | $13842^{+134}_{-130}$ | $3.98 \pm 0.22$ | $4.25 \pm 0.23$ |

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|---|---|---|---|---|---|---|---|---|---|---|
| Gaia DR3 5290123042533267712 | | 275.14 | -14.42 | 123.38 | -61.18 | -0.18 | $12286 \pm 6143$ | $29919^{+4092}_{-2620}$ | $3.91 \pm 0.22$ | $5.84 \pm 0.15$ |
| Gaia DR3 5290692589556889472 | | 273.95 | -16.75 | 118.00 | -61.27 | -0.13 | $14763 \pm 7381$ | $28202^{+3387}_{-2998}$ | $4.30 \pm 0.22$ | $5.68 \pm 0.17$ |
| Gaia DR3 5291402530470685312 | | 272.84 | -13.63 | 122.48 | -58.85 | -0.11 | $25000 \pm 12500$ | $27409^{+3454}_{-2419}$ | $5.39 \pm 0.19$ | $5.55 \pm 0.18$ |
| Gaia DR3 5289692686809544832 | | 275.48 | -15.71 | 121.38 | -62.10 | -0.14 | $12918 \pm 6459$ | $33452^{+12054}_{-2537}$ | $4.02 \pm 0.22$ | $5.86 \pm 0.15$ |
| Gaia DR3 5289713470152476800 | | 275.22 | -15.71 | 121.12 | -61.88 | -0.16 | $25000 \pm 12500$ | $31122^{+6019}_{-3685}$ | $5.39 \pm 0.19$ | $5.86 \pm 0.15$ |
| Gaia DR3 5291746162211858688 | | 274.21 | -20.58 | 110.64 | -63.00 | 0.10 | $9998 \pm 4999$ | $29715^{+15201}_{-5995}$ | $3.48 \pm 0.22$ | $5.70 \pm 0.17$ |
| Gaia DR3 5291808417761506048 | | 273.85 | -20.74 | 110.07 | -62.73 | -0.05 | $25000 \pm 12500$ | $15865^{+269}_{-275}$ | $5.39 \pm 0.19$ | $4.52 \pm 0.23$ |
| Gaia DR3 5290993679646187136 | | 273.09 | -16.07 | 118.48 | -60.23 | -0.18 | $15281 \pm 7641$ | $37571^{+8392}_{-4890}$ | $4.38 \pm 0.22$ | $5.52 \pm 0.15$ |
| Gaia DR3 5289902036399060864 | | 275.09 | -15.77 | 120.86 | -61.80 | -0.18 | $14271 \pm 7135$ | $23078^{+6916}_{-5091}$ | $4.23 \pm 0.22$ | $5.35 \pm 0.19$ |
| Gaia DR3 5289914135324381696 | | 274.95 | -15.52 | 121.21 | -61.56 | -0.15 | $18229 \pm 9114$ | $27042^{+5047}_{-3526}$ | $4.76 \pm 0.22$ | $5.34 \pm 0.19$ |
| Gaia DR3 5290282162482108928 | | 274.60 | -13.44 | 124.54 | -60.22 | 0.27 | $25000 \pm 12500$ | $22851^{+1925}_{-1849}$ | $5.39 \pm 0.19$ | $5.24 \pm 0.20$ |
| Gaia DR3 5290478081711159552 | | 274.28 | -13.54 | 124.04 | -60.00 | -0.30 | $25000 \pm 12500$ | $115000^{+0}_{-40000}$ | $5.39 \pm 0.19$ | $6.60 \pm 0.15$ |
| Gaia DR3 5493061587298431616 | | 263.89 | -14.06 | 114.62 | -51.38 | 0.02 | $16203 \pm 8102$ | $39000^{+16000}_{-23999}$ | $4.51 \pm 0.22$ | $5.37 \pm 0.15$ |
| Gaia DR3 5494219235603452160 | | 262.06 | -13.42 | 114.30 | -49.50 | 0.01 | $25000 \pm 12500$ | $27589^{+3704}_{-2247}$ | $5.39 \pm 0.19$ | $5.55 \pm 0.18$ |
| Gaia DR3 5495360631749769600 | | 265.92 | -26.59 | 95.16 | -57.09 | -0.34 | $25000 \pm 12500$ | $30733^{+2077}_{-2171}$ | $5.39 \pm 0.19$ | $5.73 \pm 0.16$ |
| Gaia DR3 5495392380148092288 | | 265.97 | -25.67 | 96.84 | -56.98 | -0.29 | $25000 \pm 12500$ | $27999^{+6814}_{-3763}$ | $5.39 \pm 0.19$ | $5.59 \pm 0.17$ |
| Gaia DR3 5496812536854546432 | | 265.51 | -23.49 | 100.53 | -56.10 | 0.05 | $25000 \pm 12500$ | $13381^{+6619}_{-2283}$ | $5.39 \pm 0.19$ | $4.20 \pm 0.23$ |
| Gaia DR3 5492645009830447232 | | 264.23 | -14.83 | 113.74 | -52.01 | -0.24 | $25000 \pm 12500$ | $53400^{+1599}_{-17332}$ | $5.39 \pm 0.19$ | $5.75 \pm 0.15$ |
| Gaia DR3 5496994231149080448 | | 264.83 | -23.91 | 99.54 | -55.60 | -0.18 | $19817 \pm 9908$ | $25462^{+5617}_{-3300}$ | $4.93 \pm 0.21$ | $5.64 \pm 0.17$ |
| Gaia DR3 5493754107825032960 | | 262.55 | -14.37 | 113.30 | -50.34 | -0.09 | $25000 \pm 12500$ | $24998^{+5061}_{-5680}$ | $5.39 \pm 0.19$ | $5.39 \pm 0.19$ |
| Gaia DR3 5493836944855182080 | | 263.40 | -13.99 | 114.40 | -50.92 | -0.13 | $12328 \pm 6164$ | $36998^{+18002}_{-15751}$ | $3.92 \pm 0.22$ | $5.69 \pm 0.15$ |
| Gaia DR3 5494547955217871360 | | 268.15 | -28.02 | 93.00 | -59.26 | -0.50 | $20289 \pm 10145$ | $81574^{+17426}_{-10573}$ | $4.98 \pm 0.21$ | $6.39 \pm 0.15$ |
| Gaia DR3 5496278341705187968 | 1RXSJ062737.8-555700 | 264.86 | -25.43 | 96.91 | -55.95 | -0.35 | $25000 \pm 12500$ | $29000^{+8308}_{-2900}$ | $5.39 \pm 0.19$ | $5.57 \pm 0.18$ |
| Gaia DR3 5494762428704591488 | EC05593-5901 | 267.71 | -29.53 | 90.00 | -59.02 | -0.43 | $22693 \pm 11347$ | $39999^{+2589}_{-2827}$ | $5.20 \pm 0.20$ | $5.37 \pm 0.15$ |

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|---|---|---|---|---|---|---|---|---|---|---|
| Gaia DR3 5494015276196800000 | | 262.93 | -12.31 | 116.43 | -49.76 | -0.08 | $11058 \pm 5529$ | $115000^{+0}_{-40000}$ | $3.68 \pm 0.22$ | $6.60 \pm 0.15$ |
| Gaia DR3 5495095610790929920 | | 267.14 | -26.14 | 96.33 | -58.10 | -0.54 | $10560 \pm 5280$ | $115000^{+0}_{-8590}$ | $3.59 \pm 0.22$ | $6.60 \pm 0.15$ |
| Gaia DR3 5493283619927459200 | | 264.15 | -16.29 | 111.51 | -52.54 | 0.03 | $25000 \pm 12500$ | $13276^{+398}_{-350}$ | $5.39 \pm 0.19$ | $4.14 \pm 0.23$ |
| Gaia DR3 5493318731281277824 | | 263.96 | -15.77 | 112.17 | -52.17 | -0.13 | $9999 \pm 5000$ | $22229^{+1298}_{-1222}$ | $3.48 \pm 0.22$ | $5.18 \pm 0.20$ |
| Gaia DR3 5493446656886309504 | | 263.70 | -14.64 | 113.67 | -51.46 | 0.21 | $25000 \pm 12500$ | $42000^{+13000}_{-12075}$ | $5.39 \pm 0.19$ | $5.44 \pm 0.15$ |
| Gaia DR3 5508713990015731584 | | 259.05 | -16.16 | 108.69 | -47.99 | -0.36 | $15555 \pm 7778$ | $35810^{+5376}_{-4781}$ | $4.42 \pm 0.22$ | $5.90 \pm 0.14$ |
| Gaia DR3 5507938666815379072 | | 260.80 | -19.65 | 104.59 | -50.80 | -0.38 | $17891 \pm 8946$ | $34837^{+7219}_{-1049}$ | $4.72 \pm 0.22$ | $5.79 \pm 0.18$ |
| Gaia DR3 5508822949042944896 | | 258.73 | -17.83 | 106.19 | -48.34 | -0.41 | $21610 \pm 10805$ | $115000^{+0}_{-40000}$ | $5.11 \pm 0.20$ | $6.60 \pm 0.15$ |
| Gaia DR3 5509020070861552512 | | 257.93 | -15.86 | 108.48 | -46.89 | -0.22 | $15020 \pm 7510$ | $40941^{+14059}_{-5571}$ | $4.34 \pm 0.22$ | $5.39 \pm 0.15$ |
| Gaia DR3 5508459418713888000 | | 258.72 | -17.88 | 106.12 | -48.34 | -0.06 | $15020 \pm 7510$ | $27498^{+2138}_{-1720}$ | $4.34 \pm 0.22$ | $5.56 \pm 0.18$ |
| Gaia DR3 5510101474907506560 | | 256.58 | -16.52 | 106.87 | -45.94 | -0.15 | $16199 \pm 8099$ | $18595^{+1404}_{-1442}$ | $4.51 \pm 0.22$ | $4.79 \pm 0.22$ |
| Gaia DR3 5510365937516838400 | | 258.50 | -14.61 | 110.47 | -46.88 | -0.07 | $25000 \pm 12500$ | $27909^{+3931}_{-2362}$ | $5.39 \pm 0.19$ | $5.58 \pm 0.18$ |
| Gaia DR3 5510369721385814272 | | 258.41 | -14.69 | 110.31 | -46.84 | -0.05 | $25000 \pm 12500$ | $23659^{+2276}_{-936}$ | $5.39 \pm 0.19$ | $5.29 \pm 0.20$ |
| Gaia DR3 5507683266582438528 | | 258.86 | -12.90 | 112.96 | -46.48 | -0.22 | $10922 \pm 5461$ | $35998^{+7898}_{-5673}$ | $3.66 \pm 0.22$ | $5.64 \pm 0.15$ |
| Gaia DR3 5510452287837529600 | | 258.18 | -15.26 | 109.42 | -46.86 | -0.28 | $19996 \pm 9998$ | $90923^{+8076}_{-19923}$ | $4.95 \pm 0.21$ | $6.51 \pm 0.15$ |
| Gaia DR3 5510484998308765824 | | 258.03 | -14.80 | 109.96 | -46.55 | 0.10 | $18561 \pm 9281$ | $26161^{+2244}_{-1976}$ | $4.80 \pm 0.21$ | $5.62 \pm 0.17$ |
| Gaia DR3 5607086028340778624 | | 242.16 | -13.28 | 103.68 | -31.85 | -0.26 | $25000 \pm 12500$ | $26999^{+4054}_{-5160}$ | $5.39 \pm 0.19$ | $5.35 \pm 0.19$ |
| Gaia DR3 5607248786123936384 | | 241.76 | -12.22 | 104.63 | -31.06 | 0.24 | $25000 \pm 12500$ | $28398^{+8259}_{-4774}$ | $5.39 \pm 0.19$ | $5.62 \pm 0.17$ |
| Gaia DR3 5586026425002722560 | | 250.74 | -10.49 | 111.12 | -38.28 | 0.25 | $8031 \pm 4016$ | $34997^{+13418}_{-6636}$ | $3.05 \pm 0.21$ | $5.77 \pm 0.15$ |
| Gaia DR3 4668985559377358336 | LB3348 | 278.61 | -39.96 | 64.13 | -66.13 | -0.06 | $25000 \pm 12500$ | $11340^{+300}_{-230}$ | $5.39 \pm 0.19$ | $3.76 \pm 0.23$ |
| Gaia DR3 4675037340096260992 | | 277.54 | -40.00 | 64.88 | -65.37 | -0.31 | $25000 \pm 12500$ | $23225^{+193}_{-188}$ | $5.39 \pm 0.19$ | $5.33 \pm 0.19$ |
| Gaia DR3 4675151551866840064 | | 276.54 | -40.53 | 64.45 | -64.46 | -0.10 | $25000 \pm 12500$ | $12779^{+282}_{-299}$ | $5.39 \pm 0.19$ | $3.97 \pm 0.23$ |
| Gaia DR3 4669998415744739584 | | 278.03 | -41.75 | 60.73 | -64.94 | 0.08 | $24474 \pm 12237$ | $42226^{+11370}_{-6707}$ | $5.35 \pm 0.19$ | $5.40 \pm 0.15$ |
| Gaia DR3 4672968024852809344 | 2MASSJ03422404-6403211 | 278.51 | -44.11 | 55.60 | -64.06 | -0.21 | $25000 \pm 12500$ | $18631^{+345}_{-322}$ | $5.39 \pm 0.19$ | $4.81 \pm 0.22$ |

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|---|---|---|---|---|---|---|---|---|---|---|
| Gaia DR3 4675773188253643648 | 2MASSJ04310058-6234405 | 273.55 | -39.83 | 67.75 | -62.58 | 0.05 | $9303 \pm 4652$ | $9663^{+622}_{-554}$ | $3.33 \pm 0.22$ | $3.48 \pm 0.22$ |
| Gaia DR3 4675977078940730240 | | 276.24 | -41.25 | 63.15 | -63.96 | -0.46 | $25000 \pm 12500$ | $37998^{+4976}_{-4377}$ | $5.39 \pm 0.19$ | $5.39 \pm 0.17$ |
| Gaia DR3 4673903262571474688 | 2MASSJ03271007-6352543 | 279.65 | -45.58 | 51.79 | -63.88 | -0.33 | $29300 \pm 14650$ | $27090^{+1014}_{-833}$ | $5.66 \pm 0.16$ | $5.53 \pm 0.18$ |
| Gaia DR3 4676030027297506432 | | 275.78 | -40.96 | 64.07 | -63.76 | -0.29 | $25000 \pm 12500$ | $26411^{+1412}_{-1299}$ | $5.39 \pm 0.19$ | $5.36 \pm 0.19$ |
| Gaia DR3 4677213647268641152 | BPSCS29520-0048 | 272.49 | -39.28 | 69.39 | -61.96 | -0.47 | $25000 \pm 12500$ | $54965^{+34}_{-8489}$ | $5.39 \pm 0.19$ | $5.78 \pm 0.15$ |
| Gaia DR3 4677542783497891072 | EC04302-6051 | 271.29 | -40.39 | 67.74 | -60.76 | -0.36 | $22899 \pm 11450$ | $26955^{+1171}_{-1383}$ | $5.22 \pm 0.20$ | $5.52 \pm 0.18$ |
| Gaia DR3 4677827660088909824 | 2MASSJ04414254-5949300 | 269.66 | -39.35 | 70.43 | -59.83 | -0.08 | $11397 \pm 5699$ | $11167^{+340}_{-154}$ | $3.75 \pm 0.22$ | $3.86 \pm 0.23$ |
| Gaia DR3 4678812719427819904 | 2MASSJ04262920-5906096 | 269.41 | -41.41 | 66.62 | -59.10 | -0.40 | $25000 \pm 12500$ | $25249^{+928}_{-627}$ | $5.39 \pm 0.19$ | $5.38 \pm 0.19$ |
| Gaia DR3 2922129863681744896 | | 234.25 | -11.54 | 101.88 | -24.10 | -0.35 | $25000 \pm 12500$ | $26760^{+1824}_{-1603}$ | $5.39 \pm 0.19$ | $5.50 \pm 0.18$ |
| Gaia DR3 2921905494592383104 | | 235.45 | -10.44 | 103.52 | -24.69 | -0.38 | $25000 \pm 12500$ | $25131^{+1251}_{-1223}$ | $5.39 \pm 0.19$ | $5.48 \pm 0.18$ |
| Gaia DR3 2921084812241684608 | | 236.14 | -10.58 | 103.70 | -25.37 | -0.38 | $25000 \pm 12500$ | $32997^{+4062}_{-3141}$ | $5.39 \pm 0.19$ | $5.79 \pm 0.16$ |
| Gaia DR3 2922088116600671232 | | 234.46 | -12.06 | 101.45 | -24.50 | -0.28 | $13436 \pm 6718$ | $28068^{+4985}_{-2876}$ | $4.10 \pm 0.22$ | $5.65 \pm 0.17$ |
| Gaia DR3 5280061274186739456 | | 278.66 | -25.93 | 100.48 | -68.28 | -0.40 | $25000 \pm 12500$ | $34031^{+2998}_{-2469}$ | $5.39 \pm 0.19$ | $5.86 \pm 0.15$ |
| Gaia DR3 5279268354503792256 | | 279.02 | -25.35 | 102.17 | -68.51 | -0.34 | $25000 \pm 12500$ | $39546^{+4913}_{-4004}$ | $5.39 \pm 0.19$ | $5.37 \pm 0.15$ |
| Gaia DR3 5280371920582429696 | | 277.62 | -25.72 | 100.64 | -67.33 | -0.33 | $25000 \pm 12500$ | $28343^{+4869}_{-5939}$ | $5.39 \pm 0.19$ | $5.32 \pm 0.19$ |
| Gaia DR3 5301048301170075264 | | 277.47 | -12.66 | 129.08 | -62.13 | -0.15 | $25000 \pm 12500$ | $30517^{+3892}_{-2298}$ | $5.39 \pm 0.19$ | $5.73 \pm 0.16$ |
| Gaia DR3 5514099677145872768 | | 265.59 | -10.36 | 121.09 | -51.08 | 0.12 | $8790 \pm 4395$ | $36403^{+10827}_{-5791}$ | $3.22 \pm 0.21$ | $5.50 \pm 0.15$ |
| Gaia DR3 2912553697220538624 | | 231.28 | -18.58 | 93.55 | -24.26 | -0.10 | $11401 \pm 5701$ | $12033^{+237}_{-310}$ | $3.75 \pm 0.22$ | $3.80 \pm 0.23$ |
| Gaia DR3 2912186636433177088 | | 232.77 | -17.93 | 94.80 | -25.32 | -0.08 | $11923 \pm 5961$ | $12433^{+556}_{-558}$ | $3.84 \pm 0.22$ | $3.90 \pm 0.23$ |
| Gaia DR3 5511191365810066176 | | 256.83 | -11.56 | 113.40 | -44.10 | 0.20 | $8303 \pm 4151$ | $19631^{+368}_{-2523}$ | $3.11 \pm 0.21$ | $4.94 \pm 0.21$ |
| Gaia DR3 5511947280053127680 | | 255.91 | -12.88 | 111.20 | -43.88 | -0.35 | $25000 \pm 12500$ | $54011^{+988}_{-21986}$ | $5.39 \pm 0.19$ | $5.80 \pm 0.15$ |
| Gaia DR3 5510794132873964416 | | 257.98 | -13.49 | 111.64 | -45.96 | 0.04 | $14249 \pm 7125$ | $13462^{+762}_{-644}$ | $4.23 \pm 0.22$ | $4.10 \pm 0.23$ |
| Gaia DR3 5511237854536885632 | | 256.53 | -12.07 | 112.58 | -44.07 | 0.15 | $25000 \pm 12500$ | $35827^{+3175}_{-2584}$ | $5.39 \pm 0.19$ | $5.41 \pm 0.15$ |
| Gaia DR3 5512856125193586176 | TYC8147-498-1 | 266.53 | -11.18 | 120.71 | -52.29 | -0.42 | $25000 \pm 12500$ | $28393^{+3042}_{-1823}$ | $5.39 \pm 0.19$ | $5.59 \pm 0.17$ |

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|---|---|---|---|---|---|---|---|---|---|---|
| Gaia DR3 5512309637855597696 | | 255.33 | -11.45 | 112.63 | -42.74 | 0.15 | $15101 \pm 7550$ | $15180^{+1230}_{-1049}$ | $4.35 \pm 0.22$ | $4.33 \pm 0.23$ |
| Gaia DR3 4866851575967878144 | | 238.79 | -39.24 | 72.45 | -36.09 | -0.44 | $13186 \pm 6593$ | $63944^{+11055}_{-12944}$ | $4.06 \pm 0.22$ | $6.04 \pm 0.15$ |
| Gaia DR3 4867419714241921152 | EC04369-3609 | 238.40 | -41.46 | 69.69 | -36.07 | -0.56 | $25000 \pm 12500$ | $73677^{+1323}_{-14862}$ | $5.39 \pm 0.19$ | $6.25 \pm 0.15$ |
| Gaia DR3 4857928695510590976 | EC04003-3551 | 237.17 | -48.80 | 60.56 | -35.72 | -0.49 | $20586 \pm 10293$ | $33747^{+6949}_{-1392}$ | $5.01 \pm 0.21$ | $5.86 \pm 0.15$ |
| Gaia DR3 4858162547890039808 | 2MASSJ04034798-3502560 | 236.18 | -48.46 | 60.95 | -35.05 | -0.06 | $10580 \pm 5290$ | $11195^{+410}_{-197}$ | $3.59 \pm 0.22$ | $3.81 \pm 0.23$ |
| Gaia DR3 4870606614334908928 | EC04156-3320 | 233.84 | -45.48 | 64.39 | -33.22 | -0.57 | $25000 \pm 12500$ | $115000^{+0}_{-38708}$ | $5.39 \pm 0.19$ | $6.60 \pm 0.15$ |
| Gaia DR3 5603869372713768960 | | 243.61 | -11.77 | 106.00 | -32.51 | -0.33 | $25000 \pm 12500$ | $22421^{+3005}_{-2180}$ | $5.39 \pm 0.19$ | $5.34 \pm 0.19$ |
| Gaia DR3 5604091061745479680 | | 243.02 | -11.61 | 105.88 | -31.93 | -0.22 | $16609 \pm 8305$ | $26566^{+2116}_{-1852}$ | $4.56 \pm 0.22$ | $5.47 \pm 0.18$ |
| Gaia DR3 5603648851913271680 | | 244.60 | -12.19 | 106.03 | -33.57 | -0.29 | $14474 \pm 7237$ | $29114^{+6506}_{-2612}$ | $4.26 \pm 0.22$ | $5.78 \pm 0.16$ |
| Gaia DR3 5604181015542109824 | | 243.89 | -10.97 | 106.99 | -32.43 | -0.22 | $13048 \pm 6524$ | $25159^{+2832}_{-2819}$ | $4.04 \pm 0.22$ | $5.51 \pm 0.18$ |
| Gaia DR3 5603748323356258048 | TYC7094-1628-1 | 244.42 | -11.93 | 106.22 | -33.30 | -0.16 | $20151 \pm 10076$ | $22281^{+2430}_{-2195}$ | $4.97 \pm 0.21$ | $5.15 \pm 0.20$ |
| Gaia DR3 5604541105599368960 | | 242.41 | -11.65 | 105.55 | -31.40 | -0.30 | $12153 \pm 6076$ | $25798^{+3650}_{-3629}$ | $3.88 \pm 0.22$ | $5.44 \pm 0.19$ |
| Gaia DR3 4819562302412127616 | EC05217-3914 | 243.84 | -33.13 | 80.86 | -39.20 | -0.44 | $31300 \pm 15650$ | $32961^{+2657}_{-2048}$ | $5.76 \pm 0.15$ | $5.80 \pm 0.15$ |
| Gaia DR3 4817132519153233792 | EC04506-3922 | 242.97 | -39.11 | 73.09 | -39.29 | -0.33 | $9999 \pm 4999$ | $22024^{+1259}_{-1203}$ | $3.48 \pm 0.22$ | $5.09 \pm 0.21$ |
| Gaia DR3 4822681238943011840 | EC05190-3512 | 238.99 | -32.88 | 80.20 | -35.16 | -0.16 | $14285 \pm 7142$ | $14890^{+1145}_{-817}$ | $4.23 \pm 0.22$ | $4.27 \pm 0.23$ |
| Gaia DR3 4822727865107915904 | EC05168-3509 | 238.82 | -33.31 | 79.66 | -35.11 | -0.30 | $25000 \pm 12500$ | $27473^{+3494}_{-2988}$ | $5.39 \pm 0.19$ | $5.57 \pm 0.18$ |
| Gaia DR3 4822902893615171328 | EC05243-3449 | 238.84 | -31.72 | 81.55 | -34.79 | -0.02 | $19995 \pm 9998$ | $32579^{+3676}_{-1427}$ | $4.95 \pm 0.21$ | $5.82 \pm 0.15$ |
| Gaia DR3 4822938249786009728 | EC05270-3449 | 238.98 | -31.19 | 82.21 | -34.78 | -0.39 | $19907 \pm 9954$ | $28395^{+1130}_{-2572}$ | $4.94 \pm 0.21$ | $5.63 \pm 0.17$ |
| Gaia DR3 4820367625959707136 | HE0505-3833a | 242.38 | -36.19 | 76.75 | -38.49 | -0.36 | $25000 \pm 12500$ | $26459^{+2745}_{-1112}$ | $5.39 \pm 0.19$ | $5.45 \pm 0.19$ |
| Gaia DR3 4817947875744817536 | | 242.20 | -39.65 | 72.32 | -38.76 | -0.41 | $19325 \pm 9662$ | $29749^{+1969}_{-1564}$ | $4.88 \pm 0.21$ | $5.72 \pm 0.16$ |
| Gaia DR3 4818420700104434432 | EC04507-3735 | 240.68 | -38.89 | 73.13 | -37.50 | -0.48 | $9998 \pm 4999$ | $40000^{+3305}_{-2017}$ | $3.48 \pm 0.22$ | $5.37 \pm 0.15$ |
| Gaia DR3 4818530857425524736 | EC04517-3706 | 240.11 | -38.62 | 73.38 | -37.03 | -0.47 | $25000 \pm 12500$ | $41935^{+3388}_{-2963}$ | $5.39 \pm 0.19$ | $5.41 \pm 0.15$ |
| Gaia DR3 4818534877514902272 | HE0452-3654 | 239.86 | -38.53 | 73.47 | -36.82 | -0.42 | $25000 \pm 12500$ | $26966^{+1125}_{-569}$ | $5.39 \pm 0.19$ | $5.57 \pm 0.18$ |
| Gaia DR3 4815279013130197376 | | 245.98 | -40.95 | 70.86 | -41.71 | -0.43 | $9997 \pm 4998$ | $67904^{+7095}_{-16904}$ | $3.48 \pm 0.22$ | $6.09 \pm 0.15$ |

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|---|---|---|---|---|---|---|---|---|---|---|
| Gaia DR3 4818695848592414976 | HE0447-3654 | 239.71 | -39.45 | 72.32 | -36.82 | -0.41 | $30700 \pm 15350$ | $29989^{+1812}_{-1598}$ | $5.73 \pm 0.16$ | $5.66 \pm 0.17$ |
| Gaia DR3 4819054598621297664 | | 244.80 | -34.03 | 79.87 | -40.14 | -0.38 | $16201 \pm 8100$ | $24722^{+1311}_{-1519}$ | $4.51 \pm 0.22$ | $5.48 \pm 0.18$ |
| Gaia DR3 4815765173365005568 | EC04329-4223 | 246.70 | -42.61 | 68.65 | -42.28 | -0.39 | $9996 \pm 4998$ | $27000^{+1856}_{-991}$ | $3.48 \pm 0.22$ | $5.43 \pm 0.19$ |
| Gaia DR3 4819166924905831040 | HE0510-4023 | 244.80 | -35.42 | 78.08 | -40.33 | -0.34 | $25000 \pm 12500$ | $27189^{+1095}_{-1003}$ | $5.39 \pm 0.19$ | $5.50 \pm 0.18$ |
| Gaia DR3 4825115076650323584 | HE0500-3518 | 238.22 | -36.56 | 75.63 | -35.24 | -0.40 | $25000 \pm 12500$ | $25485^{+4886}_{-709}$ | $5.39 \pm 0.19$ | $5.40 \pm 0.19$ |
| Gaia DR3 2919475848770536448 | | 237.36 | -14.75 | 99.99 | -28.16 | -0.42 | $25000 \pm 12500$ | $30220^{+2871}_{-2287}$ | $5.39 \pm 0.19$ | $5.84 \pm 0.15$ |
| Gaia DR3 2919112528898930432 | | 237.73 | -12.12 | 102.87 | -27.43 | -0.34 | $12159 \pm 6080$ | $32596^{+6911}_{-4311}$ | $3.89 \pm 0.22$ | $5.84 \pm 0.15$ |
| Gaia DR3 2918658911631590144 | | 238.27 | -14.08 | 101.08 | -28.71 | -0.32 | $16550 \pm 8275$ | $27000^{+3411}_{-2605}$ | $4.55 \pm 0.22$ | $5.43 \pm 0.19$ |
| Gaia DR3 2919889883618031104 | | 236.32 | -14.28 | 100.02 | -27.06 | -0.15 | $25000 \pm 12500$ | $24672^{+1878}_{-1902}$ | $5.39 \pm 0.19$ | $5.39 \pm 0.19$ |
| Gaia DR3 5301260232029153152 | TYC8926-1746-1 | 276.75 | -11.81 | 129.69 | -61.06 | -0.06 | $17311 \pm 8655$ | $24020^{+1369}_{-1386}$ | $4.65 \pm 0.22$ | $5.29 \pm 0.20$ |
| Gaia DR3 5301271849924058112 | | 276.88 | -11.38 | 130.54 | -60.90 | -0.23 | $25000 \pm 12500$ | $28000^{+2828}_{-1880}$ | $5.39 \pm 0.19$ | $5.71 \pm 0.16$ |
| Gaia DR3 5302127579205191808 | | 275.84 | -11.46 | 129.20 | -60.13 | -0.17 | $10463 \pm 5232$ | $37393^{+17606}_{-15736}$ | $3.57 \pm 0.22$ | $5.43 \pm 0.15$ |
| Gaia DR3 5301380942094216704 | | 277.69 | -10.86 | 132.39 | -61.23 | -0.12 | $10318 \pm 5159$ | $41598^{+13402}_{-4889}$ | $3.54 \pm 0.22$ | $5.40 \pm 0.15$ |
| Gaia DR3 5301404615953702656 | | 277.33 | -10.77 | 132.10 | -60.88 | -0.21 | $25000 \pm 12500$ | $39998^{+15001}_{-21046}$ | $5.39 \pm 0.19$ | $5.37 \pm 0.15$ |
| Gaia DR3 5301419042743812224 | | 277.55 | -10.42 | 132.94 | -60.84 | -0.25 | $11752 \pm 5876$ | $36751^{+17909}_{-9583}$ | $3.81 \pm 0.22$ | $5.52 \pm 0.15$ |
| Gaia DR3 5301146574316946560 | | 276.92 | -12.44 | 128.82 | -61.56 | -0.17 | $12538 \pm 6269$ | $26590^{+2892}_{-2272}$ | $3.95 \pm 0.22$ | $5.50 \pm 0.18$ |
| Gaia DR3 5301973922457181440 | | 276.21 | -12.48 | 127.93 | -61.01 | 0.09 | $25000 \pm 12500$ | $34997^{+4643}_{-4954}$ | $5.39 \pm 0.19$ | $5.46 \pm 0.15$ |
| Gaia DR3 5301975503005168768 | | 276.22 | -12.30 | 128.25 | -60.91 | -0.05 | $12416 \pm 6208$ | $27505^{+770}_{-726}$ | $3.93 \pm 0.22$ | $5.56 \pm 0.18$ |
| Gaia DR3 2894791842787640192 | | 238.41 | -18.37 | 96.57 | -30.47 | -0.32 | $15056 \pm 7528$ | $20660^{+2747}_{-761}$ | $4.35 \pm 0.22$ | $5.27 \pm 0.20$ |
| Gaia DR3 2894795008181793280 | | 238.70 | -18.00 | 97.09 | -30.59 | -0.43 | $19390 \pm 9695$ | $46531^{+8469}_{-8178}$ | $4.89 \pm 0.21$ | $5.50 \pm 0.15$ |
| Gaia DR3 2894102242838418176 | TYC7074-628-1 | 239.04 | -16.56 | 98.78 | -30.36 | -0.06 | $25000 \pm 12500$ | $12751^{+354}_{-327}$ | $5.39 \pm 0.19$ | $4.06 \pm 0.23$ |
| Gaia DR3 2894192127913592320 | | 239.67 | -15.57 | 100.11 | -30.54 | -0.37 | $12650 \pm 6325$ | $29038^{+12757}_{-3882}$ | $3.97 \pm 0.22$ | $5.65 \pm 0.17$ |
| Gaia DR3 5302500073132727680 | | 275.88 | -10.86 | 130.21 | -59.81 | -0.21 | $25000 \pm 12500$ | $25221^{+29778}_{-9760}$ | $5.39 \pm 0.19$ | $5.41 \pm 0.19$ |
| Gaia DR3 5302553502522498944 | | 275.49 | -10.60 | 130.19 | -59.34 | -0.25 | $9674 \pm 4837$ | $31998^{+23001}_{-10720}$ | $3.41 \pm 0.22$ | $5.60 \pm 0.15$ |

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|---|---|---|---|---|---|---|---|---|---|---|
| Gaia DR3 2895063117219676160 | | 237.69 | -18.88 | 95.75 | -30.02 | 0.04 | $9635 \pm 4818$ | $8848^{+123}_{-111}$ | $3.40 \pm 0.22$ | $3.26 \pm 0.22$ |
| Gaia DR3 2892651024928505600 | | 240.31 | -20.75 | 94.69 | -32.98 | -0.32 | $18040 \pm 9020$ | $26000^{+29000}_{-6532}$ | $4.74 \pm 0.22$ | $5.34 \pm 0.19$ |
| Gaia DR3 2893758409235290752 | | 240.24 | -16.54 | 99.31 | -31.41 | -0.30 | $25000 \pm 12500$ | $26640^{+2016}_{-2083}$ | $5.39 \pm 0.19$ | $5.51 \pm 0.18$ |
| Gaia DR3 2894529888440451200 | | 238.43 | -15.82 | 99.31 | -29.54 | 0.26 | $7998 \pm 3999$ | $31107^{+4554}_{-2505}$ | $3.04 \pm 0.21$ | $5.72 \pm 0.16$ |
| Gaia DR3 2894607919407035136 | | 238.42 | -15.12 | 100.06 | -29.25 | -0.41 | $25000 \pm 12500$ | $28498^{+5977}_{-3046}$ | $5.39 \pm 0.19$ | $5.56 \pm 0.18$ |
| Gaia DR3 2891965204551361536 | | 241.43 | -19.47 | 96.55 | -33.53 | -0.04 | $11546 \pm 5773$ | $11880^{+417}_{-368}$ | $3.78 \pm 0.22$ | $3.76 \pm 0.23$ |
| Gaia DR3 2895491617518092928 | | 237.28 | -15.79 | 98.86 | -28.50 | -0.35 | $15907 \pm 7953$ | $27285^{+3648}_{-3464}$ | $4.47 \pm 0.22$ | $5.46 \pm 0.18$ |
| Gaia DR3 2895713340909298944 | | 236.86 | -15.62 | 98.87 | -28.06 | -0.42 | $10794 \pm 5397$ | $37999^{+3296}_{-4231}$ | $3.63 \pm 0.22$ | $5.39 \pm 0.15$ |
| Gaia DR3 5530603896435484160 | | 260.50 | -10.18 | 117.54 | -46.64 | 0.28 | $7679 \pm 3839$ | $115000^{+0}_{-40000}$ | $2.96 \pm 0.20$ | $6.60 \pm 0.15$ |
| Gaia DR3 2922659347253847168 | | 233.74 | -10.20 | 102.97 | -23.07 | -0.27 | $25000 \pm 12500$ | $28998^{+5082}_{-2940}$ | $5.39 \pm 0.19$ | $5.36 \pm 0.19$ |
| Gaia DR3 2923672066178588800 | | 233.88 | -12.74 | 100.52 | -24.26 | -0.32 | $25000 \pm 12500$ | $35000^{+1907}_{-1263}$ | $5.39 \pm 0.19$ | $5.91 \pm 0.14$ |
| Gaia DR3 2924341084643425024 | CD-243988 | 232.46 | -16.58 | 96.05 | -24.53 | 0.28 | $25000 \pm 12500$ | $39491^{+11554}_{-4346}$ | $5.39 \pm 0.19$ | $5.37 \pm 0.15$ |
| Gaia DR3 2924551744199992832 | | 233.07 | -14.50 | 98.40 | -24.25 | -0.33 | $25000 \pm 12500$ | $23259^{+1897}_{-1793}$ | $5.39 \pm 0.19$ | $5.25 \pm 0.20$ |
| Gaia DR3 2924605792068030336 | | 232.78 | -14.56 | 98.22 | -24.03 | -0.33 | $16667 \pm 8333$ | $26129^{+2603}_{-2652}$ | $4.57 \pm 0.22$ | $5.31 \pm 0.20$ |
| Gaia DR3 2924781885728125824 | | 232.29 | -13.22 | 99.34 | -23.05 | 0.10 | $16681 \pm 8340$ | $27104^{+8578}_{-3147}$ | $4.57 \pm 0.22$ | $5.58 \pm 0.18$ |
| Gaia DR3 2924945987837468288 | | 231.39 | -14.41 | 97.78 | -22.73 | -0.28 | $11913 \pm 5957$ | $22924^{+4132}_{-3658}$ | $3.84 \pm 0.22$ | $5.18 \pm 0.20$ |
| Gaia DR3 5589612349035652992 | | 249.02 | -9.74 | 111.01 | -36.43 | -0.29 | $7762 \pm 3881$ | $41959^{+13040}_{-13330}$ | $2.98 \pm 0.21$ | $5.40 \pm 0.15$ |
| Gaia DR3 5603285806919711360 | | 244.61 | -9.76 | 108.65 | -32.54 | -0.49 | $25000 \pm 12500$ | $82993^{+16007}_{-11992}$ | $5.39 \pm 0.19$ | $6.40 \pm 0.15$ |
| Gaia DR3 5274298871184538496 | TYC9193-2113-1 | 280.30 | -18.69 | 120.16 | -67.56 | -0.04 | $25000 \pm 12500$ | $10197^{+360}_{-150}$ | $5.39 \pm 0.19$ | $3.54 \pm 0.22$ |
| Gaia DR3 5273847762178540416 | | 280.39 | -20.09 | 116.87 | -68.22 | -0.26 | $16165 \pm 8082$ | $36383^{+9185}_{-5748}$ | $4.50 \pm 0.22$ | $5.78 \pm 0.16$ |
| Gaia DR3 5610505578222374656 | | 239.28 | -9.73 | 106.04 | -27.80 | -0.25 | $11796 \pm 5898$ | $48447^{+6553}_{-10417}$ | $3.82 \pm 0.22$ | $5.61 \pm 0.15$ |
| Gaia DR3 5609629782853279232 | | 239.96 | -9.72 | 106.38 | -28.39 | 0.07 | $18309 \pm 9155$ | $87202^{+11797}_{-16202}$ | $4.77 \pm 0.22$ | $6.41 \pm 0.15$ |
| Gaia DR3 5297349445274784640 | | 279.88 | -9.84 | 136.97 | -62.23 | -0.10 | $17365 \pm 8683$ | $24755^{+1982}_{-2078}$ | $4.66 \pm 0.22$ | $5.31 \pm 0.20$ |
| Gaia DR3 2926974346278625280 | | 231.27 | -9.79 | 102.25 | -20.71 | 0.29 | $7519 \pm 3760$ | $82994^{+16006}_{-11993}$ | $2.92 \pm 0.20$ | $6.40 \pm 0.15$ |

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|---|---|---|---|---|---|---|---|---|---|---|
| Gaia DR3 5271448284210652928 | | 280.26 | -17.28 | 123.33 | -66.87 | -0.05 | $25000 \pm 12500$ | $15375^{+590}_{-479}$ | $5.39 \pm 0.19$ | $4.43 \pm 0.23$ |
| Gaia DR3 5273260000196736768 | | 280.56 | -14.40 | 129.76 | -65.58 | -0.22 | $25000 \pm 12500$ | $30565^{+7227}_{-4288}$ | $5.39 \pm 0.19$ | $5.86 \pm 0.15$ |
| Gaia DR3 5268379581616128512 | | 280.56 | -24.82 | 104.36 | -69.78 | -0.34 | $17365 \pm 8683$ | $30823^{+4086}_{-2870}$ | $4.66 \pm 0.22$ | $5.74 \pm 0.16$ |
| Gaia DR3 5314960460454288768 | | 274.28 | -9.80 | 130.07 | -57.91 | -0.37 | $25000 \pm 12500$ | $39000^{+6965}_{-3544}$ | $5.39 \pm 0.19$ | $5.37 \pm 0.16$ |
| Gaia DR3 5298474280029567616 | | 278.04 | -9.70 | 134.70 | -60.76 | 0.05 | $8000 \pm 4000$ | $115000^{+0}_{-40000}$ | $3.04 \pm 0.21$ | $6.60 \pm 0.15$ |
| Gaia DR3 5586527634804183168 | | 249.74 | -10.00 | 111.12 | -37.17 | -0.15 | $25000 \pm 12500$ | $40000^{+10875}_{-2860}$ | $5.39 \pm 0.19$ | $5.38 \pm 0.15$ |
| Gaia DR3 4668217275627209856 | | 280.76 | -39.47 | 63.40 | -67.83 | -0.42 | $25000 \pm 12500$ | $28708^{+3684}_{-1825}$ | $5.39 \pm 0.19$ | $5.55 \pm 0.18$ |
| Gaia DR3 2921050693022578816 | TYC6526-2311-1 | 236.54 | -9.86 | 104.61 | -25.42 | 0.23 | $9594 \pm 4797$ | $8033^{+315}_{-248}$ | $3.39 \pm 0.22$ | $3.16 \pm 0.22$ |
| Gaia DR3 5278923726328106240 | | 280.62 | -26.30 | 100.13 | -70.08 | -0.24 | $25000 \pm 12500$ | $25918^{+1153}_{-1140}$ | $5.39 \pm 0.19$ | $5.47 \pm 0.18$ |
| Gaia DR3 4657996005080302720 | HD269696 | 280.48 | -32.18 | 82.92 | -69.88 | -0.48 | $42000 \pm 21000$ | $36797^{+1494}_{-1528}$ | $6.12 \pm 0.11$ | $5.44 \pm 0.15$ |
| Gaia DR3 4785371300422067072 | EC04566-5006 | 256.78 | -38.40 | 74.48 | -50.03 | 0.33 | $18313 \pm 9157$ | $31416^{+1920}_{-1504}$ | $4.77 \pm 0.22$ | $5.79 \pm 0.15$ |
| Gaia DR3 5560591014496851584 | | 253.92 | -12.56 | 110.46 | -41.99 | 0.32 | $25000 \pm 12500$ | $21104^{+4243}_{-3061}$ | $5.39 \pm 0.19$ | $5.06 \pm 0.21$ |
| Gaia DR3 5283706636273810304 | | 275.75 | -26.55 | 97.98 | -65.79 | 0.36 | $18164 \pm 9082$ | $29664^{+1496}_{-1388}$ | $4.75 \pm 0.22$ | $5.65 \pm 0.17$ |
| Gaia DR3 5558461157392946560 | | 255.00 | -15.82 | 106.98 | -44.27 | 0.36 | $25000 \pm 12500$ | $11924^{+2536}_{-1561}$ | $5.39 \pm 0.19$ | $3.85 \pm 0.23$ |
| Gaia DR3 5559386533866470784 | | 253.93 | -15.29 | 107.09 | -43.11 | 0.37 | $16208 \pm 8104$ | $28245^{+26754}_{-6190}$ | $4.51 \pm 0.22$ | $5.64 \pm 0.17$ |
| Gaia DR3 5505542109424840320 | | 260.09 | -16.67 | 108.56 | -49.11 | 0.44 | $17979 \pm 8990$ | $32815^{+6891}_{-4206}$ | $4.73 \pm 0.22$ | $5.84 \pm 0.15$ |
| Gaia DR3 5505576194285665280 | | 259.93 | -16.14 | 109.21 | -48.76 | 0.39 | $7292 \pm 3646$ | $37383^{+16150}_{-9076}$ | $2.87 \pm 0.20$ | $5.73 \pm 0.15$ |
| Gaia DR3 5282634371914454912 | | 275.20 | -21.01 | 110.43 | -64.01 | 0.42 | $25000 \pm 12500$ | $17167^{+2832}_{-1680}$ | $5.39 \pm 0.19$ | $4.53 \pm 0.23$ |
| Gaia DR3 5486042579942991104 | | 269.45 | -18.49 | 111.38 | -58.06 | 0.30 | $25000 \pm 12500$ | $32256^{+17121}_{-11945}$ | $5.39 \pm 0.19$ | $5.84 \pm 0.15$ |
| Gaia DR3 5589331045856740736 | | 248.92 | -11.54 | 108.95 | -37.13 | 0.32 | $14240 \pm 7120$ | $21388^{+2614}_{-1663}$ | $4.23 \pm 0.22$ | $5.10 \pm 0.21$ |
| Gaia DR3 5275785136027857792 | | 277.17 | -18.44 | 117.54 | -64.77 | 0.34 | $25000 \pm 12500$ | $38082^{+6872}_{-3311}$ | $5.39 \pm 0.19$ | $5.55 \pm 0.15$ |
| Gaia DR3 2926241757993339264 | | 232.34 | -12.77 | 99.81 | -22.90 | 0.35 | $7431 \pm 3715$ | $6217^{+354}_{-325}$ | $2.90 \pm 0.20$ | $2.59 \pm 0.20$ |
| Gaia DR3 5499736649371768192 | | 262.49 | -24.95 | 96.96 | -53.75 | 0.41 | $6942 \pm 3471$ | $51000^{+3999}_{-27136}$ | $2.78 \pm 0.20$ | $5.66 \pm 0.15$ |
| Gaia DR3 5500438416965102848 | | 261.84 | -27.96 | 91.78 | -53.73 | 0.35 | $24514 \pm 12257$ | $33770^{+4827}_{-3832}$ | $5.35 \pm 0.19$ | $5.85 \pm 0.15$ |

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|---|---|---|---|---|---|---|---|---|---|---|
| Gaia DR3 5288885232956603136 | | 274.14 | -19.39 | 113.02 | -62.51 | 0.50 | $25000 \pm 12500$ | $13013^{+6986}_{-2786}$ | $5.39 \pm 0.19$ | $4.25 \pm 0.23$ |
| Gaia DR3 2897707885063835648 | | 235.55 | -19.85 | 93.87 | -28.47 | 0.44 | $25000 \pm 12500$ | $115000^{+0}_{-40000}$ | $5.39 \pm 0.19$ | $6.60 \pm 0.15$ |
| Gaia DR3 2901783160488793728 | V*TVCol | 236.79 | -30.60 | 82.36 | -32.82 | 0.46 | $25000 \pm 12500$ | $38999^{+13837}_{-13340}$ | $5.39 \pm 0.19$ | $5.39 \pm 0.15$ |
| Gaia DR3 5320025974939426816 | | 269.30 | -11.50 | 122.59 | -54.79 | 0.36 | $7307 \pm 3653$ | $30000^{+3708}_{-2520}$ | $2.87 \pm 0.20$ | $5.70 \pm 0.16$ |
| Gaia DR3 4803398966087477888 | | 250.06 | -28.66 | 88.03 | -43.63 | 0.37 | $19991 \pm 9996$ | $63850^{+11150}_{-12849}$ | $4.95 \pm 0.21$ | $6.10 \pm 0.15$ |
| Gaia DR3 5291041443979101696 | | 273.21 | -15.39 | 119.79 | -60.02 | 0.33 | $25000 \pm 12500$ | $115000^{+0}_{-40000}$ | $5.39 \pm 0.19$ | $6.60 \pm 0.15$ |
| Gaia DR3 5291929437056010496 | | 273.47 | -19.32 | 112.66 | -61.90 | 0.34 | $25000 \pm 12500$ | $12812^{+2855}_{-689}$ | $5.39 \pm 0.19$ | $4.33 \pm 0.23$ |
| Gaia DR3 5494147969208716928 | | 262.52 | -13.44 | 114.58 | -49.91 | 0.42 | $7109 \pm 3554$ | $28641^{+5244}_{-3232}$ | $2.82 \pm 0.20$ | $5.63 \pm 0.17$ |
| Gaia DR3 2912425780212327680 | | 232.09 | -18.87 | 93.56 | -25.08 | 0.39 | $7173 \pm 3587$ | $115000^{+0}_{-40000}$ | $2.84 \pm 0.20$ | $6.60 \pm 0.15$ |
| Gaia DR3 5302261822705330432 | | 275.33 | -12.09 | 127.59 | -60.08 | 0.47 | $25000 \pm 12500$ | $115000^{+0}_{-40000}$ | $5.39 \pm 0.19$ | $6.60 \pm 0.15$ |
| Gaia DR3 5301148910779101568 | | 276.87 | -12.34 | 128.94 | -61.46 | 0.41 | $7327 \pm 3664$ | $13254^{+1236}_{-808}$ | $2.88 \pm 0.20$ | $3.93 \pm 0.23$ |
| Gaia DR3 5577008952183609728 | | 247.36 | -18.78 | 99.75 | -38.55 | 0.09 | $19619 \pm 9810$ | $115000^{+0}_{-40000}$ | $4.91 \pm 0.21$ | $6.60 \pm 0.15$ |
| Gaia DR3 4786283315254439296 | | 255.42 | -39.66 | 72.61 | -48.92 | -0.01 | $9656 \pm 4828$ | $10686^{+615}_{-252}$ | $3.41 \pm 0.22$ | $3.66 \pm 0.23$ |
| Gaia DR3 4786811699311025280 | | 253.28 | -38.74 | 74.06 | -47.29 | -0.07 | $25000 \pm 12500$ | $11954^{+312}_{-491}$ | $5.39 \pm 0.19$ | $3.82 \pm 0.23$ |
| Gaia DR3 4793128221813975936 | | 258.72 | -31.26 | 85.84 | -51.44 | -0.46 | $36920 \pm 18460$ | $47253^{+1811}_{-1624}$ | $5.98 \pm 0.13$ | $5.58 \pm 0.15$ |
| Gaia DR3 4794548172361183488 | | 256.23 | -29.38 | 88.35 | -49.07 | 0.00 | $10540 \pm 5270$ | $11048^{+340}_{-408}$ | $3.58 \pm 0.22$ | $3.94 \pm 0.23$ |
| Gaia DR3 5302852088653024768 | | 275.16 | -9.91 | 130.88 | -58.67 | -0.26 | $25000 \pm 12500$ | $42621^{+12379}_{-9236}$ | $5.39 \pm 0.19$ | $5.39 \pm 0.15$ |
| Gaia DR3 4656365841661681280 | | 279.33 | -36.87 | 70.92 | -67.83 | -0.28 | $18773 \pm 9386$ | $27920^{+8214}_{-3751}$ | $4.82 \pm 0.21$ | $5.59 \pm 0.17$ |
| Gaia DR3 4656254073729079168 | | 280.63 | -37.39 | 68.61 | -68.61 | -0.36 | $18363 \pm 9182$ | $39713^{+15786}_{-10028}$ | $4.77 \pm 0.21$ | $5.46 \pm 0.15$ |
| Gaia DR3 5562023884304074240 | | 253.71 | -19.14 | 102.02 | -44.32 | -0.43 | $46500 \pm 23250$ | $44092^{+3024}_{-2257}$ | $6.21 \pm 0.09$ | $5.48 \pm 0.15$ |
| Gaia DR3 5562130536932472448 | | 253.55 | -17.41 | 104.20 | -43.57 | 0.02 | $10896 \pm 5448$ | $12041^{+1552}_{-1166}$ | $3.65 \pm 0.22$ | $3.95 \pm 0.23$ |
| Gaia DR3 4660291102509462016 | | 276.36 | -32.22 | 83.97 | -66.42 | -0.08 | $12802 \pm 6401$ | $14327^{+1003}_{-789}$ | $4.00 \pm 0.22$ | $4.28 \pm 0.23$ |
| Gaia DR3 4660258014077641216 | | 276.64 | -32.32 | 83.66 | -66.65 | -0.08 | $12832 \pm 6416$ | $12745^{+1223}_{-856}$ | $4.00 \pm 0.22$ | $3.95 \pm 0.23$ |
| Gaia DR3 4660215201850894976 | | 277.04 | -32.70 | 82.61 | -66.94 | -0.15 | $17365 \pm 8683$ | $20478^{+34522}_{-5477}$ | $4.66 \pm 0.22$ | $5.01 \pm 0.21$ |

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|---|---|---|---|---|---|---|---|---|---|
| Gaia DR3 5518269368835904000 | 261.81 | -10.96 | 117.45 | -48.15 | 0.18 | $8275 \pm 4138$ | $9339^{+348}_{-262}$ | $3.10 \pm 0.21$ | $3.50 \pm 0.22$ |
| Gaia DR3 5282943575210812672 | 278.10 | -28.34 | 93.90 | -68.03 | -0.12 | $13385 \pm 6693$ | $13699^{+358}_{-442}$ | $4.09 \pm 0.22$ | $4.10 \pm 0.23$ |
| Gaia DR3 4659876930209812992 | 276.29 | -31.47 | 85.84 | -66.43 | -0.42 | $21630 \pm 10815$ | $28154^{+8482}_{-1809}$ | $5.11 \pm 0.20$ | $5.59 \pm 0.17$ |
| Gaia DR3 4659994509217926656 | 275.78 | -31.00 | 87.07 | -66.01 | -0.14 | $25000 \pm 12500$ | $16000^{+817}_{-652}$ | $5.39 \pm 0.19$ | $4.55 \pm 0.22$ |
| Gaia DR3 5314795087031449984 | 273.06 | -11.29 | 126.47 | -57.79 | -0.27 | $15346 \pm 7673$ | $47019^{+7981}_{-21982}$ | $4.39 \pm 0.22$ | $5.54 \pm 0.15$ |
| Gaia DR3 4731045843939280256 | 269.18 | -46.78 | 57.22 | -57.03 | -0.17 | $15082 \pm 7541$ | $13885^{+270}_{-376}$ | $4.35 \pm 0.22$ | $4.09 \pm 0.23$ |
| Gaia DR3 5582224558606801664 | 244.71 | -16.26 | 101.55 | -35.28 | 0.01 | $13447 \pm 6724$ | $12192^{+521}_{-835}$ | $4.10 \pm 0.22$ | $4.04 \pm 0.23$ |
| Gaia DR3 4679287154399283072 | 275.32 | -42.77 | 60.73 | -62.69 | -0.35 | $15562 \pm 7781$ | $28891^{+1163}_{-1373}$ | $4.42 \pm 0.22$ | $5.66 \pm 0.17$ |
| Gaia DR3 5590514189085810560 | 246.53 | -11.69 | 107.54 | -35.07 | -0.00 | $12856 \pm 6428$ | $30000^{+14999}_{-7941}$ | $4.00 \pm 0.22$ | $5.70 \pm 0.16$ |
| Gaia DR3 5589850560800403584 | 248.40 | -9.63 | 110.79 | -35.83 | -0.17 | $13390 \pm 6695$ | $25095^{+5141}_{-4405}$ | $4.09 \pm 0.22$ | $5.44 \pm 0.19$ |
| Gaia DR3 5589918116346939904 | 248.03 | -9.77 | 110.45 | -35.56 | -0.29 | $25000 \pm 12500$ | $44052^{+10947}_{-7951}$ | $5.39 \pm 0.19$ | $5.45 \pm 0.15$ |
| Gaia DR3 5602745396952800896 | 245.39 | -11.27 | 107.42 | -33.89 | 0.30 | $9089 \pm 4545$ | $9182^{+365}_{-181}$ | $3.28 \pm 0.22$ | $3.36 \pm 0.22$ |
| Gaia DR3 5489047575284726656 | 266.79 | -16.28 | 113.27 | -54.86 | 0.28 | $25000 \pm 12500$ | $7405^{+5094}_{-3605}$ | $5.39 \pm 0.19$ | $3.04 \pm 0.21$ |
| Gaia DR3 5276694187327436544 | 278.64 | -13.97 | 128.12 | -63.80 | 0.27 | $19988 \pm 9994$ | $36701^{+12339}_{-4502}$ | $4.95 \pm 0.21$ | $5.87 \pm 0.15$ |
| Gaia DR3 5296778214620237440 | 280.50 | -11.34 | 135.34 | -63.67 | -0.19 | $13413 \pm 6706$ | $86347^{+12652}_{-15347}$ | $4.10 \pm 0.22$ | $6.46 \pm 0.15$ |
| Gaia DR3 5296135618787346560 | 268.91 | -12.96 | 120.05 | -55.20 | -0.02 | $15007 \pm 7504$ | $21234^{+33766}_{-6233}$ | $4.34 \pm 0.22$ | $5.39 \pm 0.21$ |
| Gaia DR3 2905446114757379840 | 234.46 | -29.39 | 83.12 | -30.55 | -0.25 | $16110 \pm 8055$ | $17433^{+735}_{-647}$ | $4.49 \pm 0.22$ | $4.63 \pm 0.22$ |
| Gaia DR3 2907858511988780416 | 231.91 | -25.74 | 86.32 | -27.31 | 0.18 | $18392 \pm 9196$ | $31827^{+3843}_{-1632}$ | $4.78 \pm 0.21$ | $5.77 \pm 0.16$ |
| Gaia DR3 5498464037679147008 | 262.58 | -21.75 | 102.19 | -53.03 | 0.24 | $25000 \pm 12500$ | $42000^{+13000}_{-26999}$ | $5.39 \pm 0.19$ | $5.50 \pm 0.15$ |
| Gaia DR3 5288437422486830464 | 275.49 | -20.67 | 111.36 | -64.15 | 0.14 | $19294 \pm 9647$ | $35449^{+3070}_{-1990}$ | $4.88 \pm 0.21$ | $5.61 \pm 0.15$ |
| Gaia DR3 5517386529718597760 | 262.98 | -10.58 | 118.79 | -48.97 | -0.14 | $25000 \pm 12500$ | $27411^{+2273}_{-1862}$ | $5.39 \pm 0.19$ | $5.61 \pm 0.17$ |
| Gaia DR3 5517276372397080064 | 263.09 | -11.81 | 117.23 | -49.66 | 0.08 | $25000 \pm 12500$ | $25698^{+1784}_{-1634}$ | $5.39 \pm 0.19$ | $5.45 \pm 0.19$ |
| Gaia DR3 4756716932197256960 | 273.11 | -31.51 | 86.06 | -63.71 | -0.38 | $22229 \pm 11114$ | $34520^{+16478}_{-7193}$ | $5.16 \pm 0.20$ | $5.88 \pm 0.14$ |
| Gaia DR3 4837506950652383616 | 251.90 | -45.37 | 64.52 | -45.86 | 0.15 | $9016 \pm 4508$ | $15000^{+5000}_{-3644}$ | $3.27 \pm 0.21$ | $4.34 \pm 0.23$ |

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|---|---|---|---|---|---|---|---|---|---|
| Gaia DR3 4827086294840720128 | 235.66 | -35.64 | 76.26 | -33.04 | 0.07 | $9112 \pm 4556$ | $10129^{+200}_{-144}$ | $3.29 \pm 0.22$ | $3.46 \pm 0.22$ |
| Gaia DR3 4658633245110716032 | 278.29 | -32.64 | 82.38 | -67.99 | -0.23 | $32568 \pm 16284$ | $38163^{+5007}_{-3126}$ | $5.82 \pm 0.15$ | $5.38 \pm 0.15$ |
| Gaia DR3 5319733921465392896 | 269.04 | -9.88 | 124.71 | -53.71 | 0.01 | $15897 \pm 7949$ | $38580^{+11503}_{-6427}$ | $4.46 \pm 0.22$ | $5.40 \pm 0.15$ |
| Gaia DR3 5319611355976554880 | 269.89 | -10.35 | 124.81 | -54.67 | 0.00 | $10616 \pm 5308$ | $28652^{+4570}_{-2823}$ | $3.60 \pm 0.22$ | $5.63 \pm 0.17$ |
| Gaia DR3 5551605977270486016 | 257.31 | -21.87 | 99.79 | -48.37 | -0.34 | $19988 \pm 9994$ | $27495^{+2188}_{-1614}$ | $4.95 \pm 0.21$ | $5.53 \pm 0.18$ |
| Gaia DR3 5550710283315287296 | 259.37 | -24.27 | 96.99 | -50.83 | 0.18 | $8440 \pm 4220$ | $37474^{+17526}_{-22473}$ | $3.14 \pm 0.21$ | $5.42 \pm 0.15$ |
| Gaia DR3 5477519921721365376 | 273.99 | -29.34 | 91.05 | -64.47 | -0.27 | $21909 \pm 10954$ | $38000^{+10918}_{-5465}$ | $5.14 \pm 0.20$ | $5.38 \pm 0.15$ |
| Gaia DR3 5476909069993267328 | 273.52 | -27.86 | 94.37 | -63.96 | -0.33 | $17117 \pm 8558$ | $25744^{+2265}_{-886}$ | $4.62 \pm 0.22$ | $5.33 \pm 0.19$ |
| Gaia DR3 5268219705752940288 | 280.52 | -24.31 | 105.80 | -69.64 | 0.20 | $25000 \pm 12500$ | $115000^{+0}_{-40000}$ | $5.39 \pm 0.19$ | $6.60 \pm 0.15$ |
| Gaia DR3 5314924691966924160 | 273.78 | -10.30 | 128.75 | -57.81 | -0.21 | $10000 \pm 5000$ | $25228^{+6194}_{-4509}$ | $3.48 \pm 0.22$ | $5.41 \pm 0.19$ |
| Gaia DR3 4661573510987956992 | 278.85 | -35.82 | 73.89 | -67.77 | 0.18 | $15696 \pm 7848$ | $14668^{+5331}_{-4607}$ | $4.44 \pm 0.22$ | $4.38 \pm 0.23$ |
| Gaia DR3 4661671844257324288 | 278.54 | -35.91 | 73.83 | -67.50 | -0.15 | $17115 \pm 8557$ | $20895^{+2667}_{-757}$ | $4.62 \pm 0.22$ | $5.07 \pm 0.21$ |
| Gaia DR3 5566643100153149696 | 254.16 | -26.26 | 92.43 | -46.70 | 0.03 | $22394 \pm 11197$ | $54315^{+684}_{-13241}$ | $5.18 \pm 0.20$ | $5.75 \pm 0.15$ |
| Gaia DR3 4757281703217606784 | 273.24 | -33.69 | 81.15 | -63.67 | -0.09 | $13242 \pm 6621$ | $12865^{+254}_{-335}$ | $4.07 \pm 0.22$ | $3.94 \pm 0.23$ |
| Gaia DR3 5481538705437161856 | 270.37 | -27.25 | 95.03 | -61.12 | -0.45 | $19990 \pm 9995$ | $43807^{+11193}_{-6722}$ | $4.95 \pm 0.21$ | $5.44 \pm 0.15$ |
| Gaia DR3 4661760286279084160 | 277.90 | -36.11 | 73.71 | -66.96 | -0.15 | $15956 \pm 7978$ | $16424^{+2161}_{-193}$ | $4.47 \pm 0.22$ | $4.70 \pm 0.22$ |
| Gaia DR3 5494064784282883968 | 262.45 | -12.91 | 115.26 | -49.61 | 0.00 | $12760 \pm 6380$ | $30000^{+25000}_{-3709}$ | $3.99 \pm 0.22$ | $5.59 \pm 0.18$ |
| Gaia DR3 5509004952576699904 | 258.07 | -15.75 | 108.71 | -46.96 | -0.00 | $18038 \pm 9019$ | $74351^{+24648}_{-3351}$ | $4.74 \pm 0.22$ | $6.40 \pm 0.15$ |
| Gaia DR3 5508453306976692736 | 258.76 | -18.37 | 105.45 | -48.55 | 0.01 | $18234 \pm 9117$ | $26081^{+5658}_{-3423}$ | $4.76 \pm 0.22$ | $5.46 \pm 0.18$ |
| Gaia DR3 5606161231685030144 | 242.03 | -9.81 | 107.30 | -30.28 | 0.27 | $9363 \pm 4681$ | $9386^{+827}_{-385}$ | $3.34 \pm 0.22$ | $3.30 \pm 0.22$ |
| Gaia DR3 4674210954028216704 | 277.19 | -44.70 | 55.59 | -62.94 | -0.27 | $18377 \pm 9188$ | $30000^{+2985}_{-822}$ | $4.78 \pm 0.21$ | $5.71 \pm 0.16$ |
| Gaia DR3 4669990375565913984 | 278.31 | -41.76 | 60.48 | -65.12 | -0.17 | $15423 \pm 7712$ | $14963^{+380}_{-615}$ | $4.40 \pm 0.22$ | $4.34 \pm 0.23$ |
| Gaia DR3 4668327222493488640 | 280.89 | -39.85 | 62.39 | -67.75 | -0.39 | $17858 \pm 8929$ | $28372^{+1297}_{-1185}$ | $4.72 \pm 0.22$ | $5.65 \pm 0.17$ |
| Gaia DR3 5280303063668038784 | 277.77 | -26.72 | 98.13 | -67.60 | -0.47 | $19198 \pm 9599$ | $48512^{+6487}_{-12627}$ | $4.87 \pm 0.21$ | $5.57 \pm 0.15$ |

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|---|---|---|---|---|---|---|---|---|---|
| Gaia DR3 4658465363442588928 | 279.16 | -32.41 | 82.74 | -68.75 | -0.46 | $25000 \pm 12500$ | $37317^{+2043}_{-1653}$ | $5.39 \pm 0.19$ | $5.56 \pm 0.15$ |
| Gaia DR3 4658012742635181440 | 280.36 | -32.55 | 81.91 | -69.73 | -0.21 | $14017 \pm 7008$ | $39080^{+15920}_{-23504}$ | $4.19 \pm 0.22$ | $5.37 \pm 0.21$ |
| Gaia DR3 4867306395824443904 | 239.05 | -41.95 | 69.14 | -36.60 | 0.10 | $8809 \pm 4405$ | $8625^{+325}_{-271}$ | $3.22 \pm 0.21$ | $3.16 \pm 0.22$ |
| Gaia DR3 4662151613612027776 | 277.24 | -35.95 | 74.44 | -66.49 | -0.18 | $19982 \pm 9991$ | $25465^{+6333}_{-4729}$ | $4.95 \pm 0.21$ | $5.40 \pm 0.19$ |
| Gaia DR3 4662126393562316800 | 277.16 | -35.76 | 74.95 | -66.46 | -0.04 | $18000 \pm 9000$ | $17158^{+2841}_{-3887}$ | $4.73 \pm 0.22$ | $4.59 \pm 0.22$ |
| Gaia DR3 2919758526337773440 | 236.54 | -15.34 | 99.02 | -27.67 | -0.30 | $22684 \pm 11342$ | $28595^{+1468}_{-1396}$ | $5.20 \pm 0.20$ | $5.48 \pm 0.18$ |
| Gaia DR3 2920433832635823744 | 235.00 | -13.43 | 100.32 | -25.54 | 0.18 | $13026 \pm 6513$ | $21742^{+6010}_{-3506}$ | $4.03 \pm 0.22$ | $5.04 \pm 0.21$ |
| Gaia DR3 5301497078011592320 | 277.65 | -9.64 | 134.30 | -60.43 | -0.31 | $25000 \pm 12500$ | $35570^{+7681}_{-5152}$ | $5.39 \pm 0.19$ | $5.39 \pm 0.15$ |
| Gaia DR3 5302495778164550912 | 275.79 | -10.21 | 131.14 | -59.35 | -0.22 | $15053 \pm 7526$ | $39858^{+15141}_{-6501}$ | $4.35 \pm 0.22$ | $5.38 \pm 0.15$ |
| Gaia DR3 2892735313664068096 | 240.06 | -21.61 | 93.64 | -33.04 | 0.05 | $25000 \pm 12500$ | $10862^{+9137}_{-1838}$ | $5.39 \pm 0.19$ | $3.41 \pm 0.22$ |
| Gaia DR3 2895178080607397760 | 237.36 | -17.32 | 97.27 | -29.15 | 0.27 | $19562 \pm 9781$ | $23453^{+2213}_{-1073}$ | $4.91 \pm 0.21$ | $5.36 \pm 0.19$ |
| Gaia DR3 5531005149461925760 | 260.19 | -9.65 | 117.99 | -46.12 | -0.14 | $10000 \pm 5000$ | $27370^{+2850}_{-2160}$ | $3.48 \pm 0.22$ | $5.55 \pm 0.18$ |
| Gaia DR3 2924464917140535680 | 232.27 | -15.77 | 96.79 | -24.05 | -0.36 | $33514 \pm 16757$ | $40999^{+3245}_{-2622}$ | $5.86 \pm 0.14$ | $5.37 \pm 0.15$ |
| Gaia DR3 5518266753197554560 | 261.88 | -10.88 | 117.60 | -48.18 | 0.42 | $7008 \pm 3504$ | $115000^{+0}_{-40000}$ | $2.80 \pm 0.20$ | $6.60 \pm 0.15$ |
| Gaia DR3 5583310356402247296 | 241.77 | -14.10 | 102.63 | -31.83 | 0.46 | $7178 \pm 3589$ | $13909^{+1924}_{-1148}$ | $2.84 \pm 0.20$ | $4.18 \pm 0.23$ |
| Gaia DR3 5582930062816702976 | 243.28 | -14.04 | 103.38 | -33.15 | 0.40 | $25000 \pm 12500$ | $21862^{+24737}_{-5721}$ | $5.39 \pm 0.19$ | $5.09 \pm 0.21$ |
| Gaia DR3 5602739688937319552 | 245.46 | -11.01 | 107.75 | -33.84 | 0.33 | $9464 \pm 4732$ | $10487^{+1349}_{-717}$ | $3.36 \pm 0.22$ | $3.29 \pm 0.22$ |
| Gaia DR3 5296640771364782976 | 280.72 | -12.48 | 133.64 | -64.56 | 0.31 | $9630 \pm 4815$ | $9577^{+3785}_{-576}$ | $3.40 \pm 0.22$ | $3.58 \pm 0.23$ |
| Gaia DR3 5565483669439070976 | 249.77 | -14.45 | 106.02 | -39.09 | 0.43 | $7474 \pm 3737$ | $9373^{+460}_{-345}$ | $2.91 \pm 0.20$ | $3.44 \pm 0.22$ |
| Gaia DR3 5290169290740687104 | 274.77 | -14.28 | 123.25 | -60.79 | 0.44 | $9718 \pm 4859$ | $7801^{+2565}_{-466}$ | $3.42 \pm 0.22$ | $3.04 \pm 0.21$ |
| Gaia DR3 5495201198267773696 | 266.41 | -25.54 | 97.22 | -57.35 | 0.39 | $7477 \pm 3739$ | $67000^{+8000}_{-15999}$ | $2.92 \pm 0.20$ | $6.06 \pm 0.15$ |
| Gaia DR3 5604723276631914368 | 241.87 | -10.03 | 106.99 | -30.23 | 0.35 | $9928 \pm 4964$ | $7200^{+5300}_{-3241}$ | $3.46 \pm 0.22$ | $3.27 \pm 0.22$ |
| Gaia DR3 5301494810260623232 | 277.63 | -9.77 | 134.07 | -60.50 | 0.32 | $7788 \pm 3894$ | $73189^{+1811}_{-22188}$ | $2.99 \pm 0.21$ | $6.23 \pm 0.15$ |
| Gaia DR3 2895064457249469696 | 237.62 | -18.89 | 95.70 | -29.96 | 0.36 | $15535 \pm 7768$ | $14000^{+6000}_{-2330}$ | $4.42 \pm 0.22$ | $4.09 \pm 0.23$ |

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|---|---|---|---|---|---|---|---|---|---|---|
| Gaia DR3 4785577119551899904 | EC04558-4906 | 255.51 | -38.56 | 74.29 | -49.04 | 0.18 | $19682 \pm 9841$ | $30291^{+4636}_{-3624}$ | $4.92 \pm 0.21$ | $5.62 \pm 0.17$ |
| Gaia DR3 4766580616640592128 | EC05382-5637 | 264.74 | -32.19 | 84.78 | -56.60 | 0.37 | $7325 \pm 3663$ | $64310^{+10690}_{-13309}$ | $2.88 \pm 0.20$ | $6.06 \pm 0.15$ |
| Gaia DR3 4764744256126479104 | EC04598-5519 | 263.36 | -37.59 | 75.22 | -55.26 | 0.25 | $25000 \pm 12500$ | $30868^{+3576}_{-2602}$ | $5.39 \pm 0.19$ | $5.80 \pm 0.15$ |
| Gaia DR3 4811309402493458560 | EC04499-4506 | 250.35 | -39.58 | 72.86 | -45.02 | 0.24 | $18089 \pm 9044$ | $24074^{+2082}_{-1662}$ | $4.74 \pm 0.22$ | $5.29 \pm 0.20$ |

## A.4 Single stars

**Table A.3:** Single stars determined by the SED fitting process including atmospheric and stellar parameters are depicted. The effective temperature $T_{\text{eff}}$ and the surface gravity log $g$ were determined using evolutionary Tracks of the Kiel diagram (see Figure 4.2). An additional surface gravity log $g_{\text{calc.}}$ was calculated via Newton's law with the canonical mass and SED-derived stellar Radius $R$. Fit parameters from SED are the angular diameter log $\Theta$, reddening $E(44\text{ - }55)$, and parallax $\varpi$. For the SED-determined stellar parameters radius $R/R_\odot$ and $L/L_\odot$, the median values rather than the mode ones were taken. Spectral classifications Sp. Cl. are based on values of $T_{\text{eff}}$ and $R/R_\odot$ (see Chapter 5). A first indication of the quality of the SED-fits is provided by the excess factor $\delta_{\text{exc}}$.

| Objekt | $T_{\text{eff}}$ [K] | log $g$ [cm s$^{-2}$] | log $g_{\text{calc.}}$ [cm s$^{-2}$] | log $\Theta$ [rad] | E(44 - 55) [mag] | parallax $\varpi$ [mas] | $R$ [$R_\odot$] | $L/L_\odot$ | Sp. Cl. | $\delta_{\text{exc}}$ |
|---|---|---|---|---|---|---|---|---|---|---|
| GaiaDR32926241757993339264 | $6217^{+354}_{-325}$ | $2.59 \pm 0.20$ | $4.75^{+0.09}_{-0.08}$ | $-10.908^{+0.013}_{-0.030}$ | 0.108 | $0.56 \pm 0.09$ | $0.479^{+0.052}_{-0.046}$ | $0.310^{+0.109}_{-0.080}$ | BHB | 0.000 |
| GaiaDR35604723276631914368 | $7200^{+5300}_{-3241}$ | $3.27 \pm 0.22$ | $5.06^{+0.30}_{-0.66}$ | $-10.724^{+0.115}_{-0.628}$ | $0.000^{+0.066}_{-0.000}$ | $1.22 \pm 0.18$ | $0.334^{+0.115}_{-0.253}$ | $0.140^{+1.779}_{-0.136}$ | BHB | 0.054 |
| GaiaDR35290169290740687104 | $7801^{+2565}_{-466}$ | $3.04 \pm 0.21$ | $5.11^{+0.42}_{-0.65}$ | $-11.142^{+0.139}_{-0.616}$ | $0.156^{+0.083}_{-0.072}$ | $0.48 \pm 0.08$ | $0.318^{+0.154}_{-0.236}$ | $0.372^{+0.912}_{-0.343}$ | BHB | 0.020 |
| GaiaDR35550710283315287296 | $8000^{+406}_{-234}$ | $3.27 \pm 0.22$ | $5.15^{+0.18}_{-0.16}$ | $-11.244^{+0.049}_{-0.085}$ | $0.000^{+0.014}_{-0.000}$ | $0.41 \pm 0.07$ | $0.302^{+0.061}_{-0.057}$ | $0.346^{+0.175}_{-0.123}$ | BHB | 0.024 |
| GaiaDR34867306395824443904 | $8709^{+77}_{-53}$ | $3.16 \pm 0.22$ | $4.08^{+0.23}_{-0.15}$ | $-10.945^{+0.008}_{-0.018}$ | $0.000^{+0.004}_{-0.000}$ | $0.24 \pm 0.03$ | $1.032^{+0.271}_{-0.179}$ | $5.540^{+3.297}_{-1.760}$ | BHB | 0.057 |
| GaiaDR32895063117219676160 | $8848^{+123}_{-111}$ | $3.26 \pm 0.22$ | $3.51^{+0.47}_{-0.23}$ | $-10.895^{+0.008}_{-0.008}$ | $0.000^{+0.006}_{-0.000}$ | $0.14 \pm 0.03$ | $2.003^{+1.094}_{-0.525}$ | $22.209^{+30.951}_{-10.161}$ | BHB | 0.028 |
| GaiaDR35493061587298431616 | $9087^{+1580}_{-86}$ | $4.34 \pm 0.23$ | $4.68^{+0.18}_{-0.17}$ | $-11.064^{+0.014}_{-0.107}$ | $0.000^{+0.088}_{-0.000}$ | $0.35 \pm 0.04$ | $0.517^{+0.104}_{-0.102}$ | $1.953^{+1.529}_{-0.759}$ | BHB | 0.027 |
| GaiaDR35296640771364782976 | $9145^{+194}_{-144}$ | $3.58 \pm 0.23$ | $4.66^{+0.08}_{-0.07}$ | $-10.752^{+0.020}_{-0.022}$ | 0.153 | $0.74 \pm 0.10$ | $0.533^{+0.047}_{-0.042}$ | $1.804^{+0.368}_{-0.297}$ | BHB | 0.013 |
| GaiaDR35602745396952800896 | $9182^{+365}_{-181}$ | $3.36 \pm 0.22$ | $4.60^{+0.31}_{-0.22}$ | $-11.174^{+0.094}_{-0.102}$ | 0.172 | $0.26 \pm 0.05$ | $0.570^{+0.202}_{-0.145}$ | $2.142^{+1.836}_{-0.964}$ | BHB | 0.000 |
| GaiaDR35518269368835904000 | $9339^{+348}_{-262}$ | $3.50 \pm 0.22$ | $4.87^{+0.35}_{-0.71}$ | $-11.217^{+0.032}_{-0.808}$ | $0.000^{+0.023}_{-0.000}$ | $0.27 \pm 0.05$ | $0.419^{+0.168}_{-0.341}$ | $1.194^{+1.232}_{-1.151}$ | BHB | 0.028 |
| GaiaDR34682469347208252544 | $9343^{+184}_{-185}$ | $3.42 \pm 0.22$ | $4.43^{+0.24}_{-0.16}$ | $-11.106^{+0.072}_{-0.024}$ | 0.016 | $0.26 \pm 0.03$ | $0.691^{+0.193}_{-0.128}$ | $3.274^{+2.121}_{-1.121}$ | BHB | 0.036 |
| GaiaDR35565483669439070976 | $9373^{+460}_{-345}$ | $3.44 \pm 0.22$ | $5.70^{+0.10}_{-0.10}$ | $-11.275^{+0.035}_{-0.046}$ | 0.126 | $0.73 \pm 0.11$ | $0.161^{+0.019}_{-0.018}$ | $0.183^{+0.061}_{-0.046}$ | BHB | 0.011 |
| GaiaDR35606161231685030144 | $9386^{+827}_{-385}$ | $3.30 \pm 0.22$ | $4.83^{+0.11}_{-0.09}$ | $-11.028^{+0.011}_{-0.014}$ | $0.172^{+0.062}_{-0.054}$ | $0.48 \pm 0.06$ | $0.436^{+0.053}_{-0.043}$ | $1.400^{+0.619}_{-0.372}$ | BHB | 0.064 |
| GaiaDR32909679852999761536 | $10181^{+218}_{-154}$ | $3.50 \pm 0.22$ | $2.97^{+0.69}_{-0.28}$ | $-10.730^{+0.036}_{-0.043}$ | $0.000^{+0.003}_{-0.000}$ | $0.11 \pm 0.02$ | $3.728^{+2.944}_{-1.188}$ | $135.993^{+300.174}_{-73.103}$ | BHB | 0.047 |
| GaiaDR34792110623802246912 | $10206^{+282}_{-376}$ | $3.51 \pm 0.22$ | $4.18^{+0.29}_{-0.18}$ | $-11.078^{+0.030}_{-0.017}$ | 0.066 | $0.20 \pm 0.03$ | $0.923^{+0.307}_{-0.188}$ | $8.224^{+6.564}_{-3.107}$ | BHB | 0.031 |

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|---|---|---|---|---|---|---|---|---|---|---|
| TYC8921-117-1 | $10247^{+167}_{-145}$ | $3.75\pm0.23$ | $3.76^{+0.06}_{-0.05}$ | $-10.199^{+0.012}_{-0.013}$ | 0.116 | $0.93\pm0.13$ | $1.502^{+0.095}_{-0.087}$ | $22.460^{+3.321}_{-2.811}$ | BHB | 0.028 |
| GaiaDR34679135456154867200 | $10289^{+368}_{-213}$ | $3.52\pm0.22$ | $4.02^{+0.41}_{-0.23}$ | $-11.086^{+0.046}_{-0.074}$ | 0.017 | $0.16\pm0.03$ | $1.105^{+0.523}_{-0.293}$ | $12.628^{+15.026}_{-5.886}$ | BHB | 0.046 |
| GaiaDR35602739688937319552 | $10487^{+1349}_{-717}$ | $3.29\pm0.22$ | $6.02^{+0.31}_{-0.34}$ | $-11.324^{+0.125}_{-0.221}$ | $0.206^{+0.020}_{-0.036}$ | $0.94\pm0.14$ | $0.111^{+0.039}_{-0.044}$ | $0.136^{+0.160}_{-0.086}$ | BHB | 0.011 |
| 2MASSJ03453895-5532069 | $10677^{+464}_{-249}$ | $3.57\pm0.22$ | $3.62^{+0.45}_{-0.23}$ | $-10.918^{+0.036}_{-0.066}$ | $0.000^{+0.023}_{-0.000}$ | $0.15\pm0.02$ | $1.759^{+0.916}_{-0.476}$ | $37.441^{+49.988}_{-17.838}$ | BHB | 0.065 |
| GaiaDR34786283315254439296 | $10686^{+615}_{-252}$ | $3.66\pm0.23$ | $4.12^{+0.42}_{-0.25}$ | $-11.129^{+0.047}_{-0.105}$ | $0.000^{+0.034}_{-0.000}$ | $0.16\pm0.03$ | $0.987^{+0.481}_{-0.279}$ | $12.049^{+15.119}_{-5.980}$ | BHB | 0.004 |
| GaiaDR32936588029269162624 | $10727^{+1122}_{-502}$ | $3.86\pm0.23$ | $3.22^{+0.56}_{-0.28}$ | $-10.757^{+0.036}_{-0.136}$ | $0.011^{+0.022}_{-0.011}$ | $0.13\pm0.02$ | $2.779^{+1.798}_{-0.902}$ | $100.398^{+185.841}_{-57.402}$ | BHB | 0.030 |
| GaiaDR32896507944217551872 | $10908^{+1745}_{-463}$ | $3.64\pm0.23$ | $4.05^{+0.32}_{-0.19}$ | $-11.023^{+0.018}_{-0.053}$ | $0.000^{+0.037}_{-0.000}$ | $0.19\pm0.03$ | $1.071^{+0.391}_{-0.236}$ | $17.103^{+19.781}_{-7.917}$ | BHB | 0.032 |
| GaiaDR34794548172361183488 | $11048^{+340}_{-408}$ | $3.94\pm0.23$ | $3.95^{+0.38}_{-0.21}$ | $-11.029^{+0.026}_{-0.061}$ | $0.068^{+0.013}_{-0.026}$ | $0.17\pm0.03$ | $1.206^{+0.530}_{-0.298}$ | $19.374^{+21.219}_{-8.583}$ | BHB | 0.003 |
| 2MASSJ04414254-5949300 | $11167^{+340}_{-154}$ | $3.86\pm0.23$ | $3.85^{+0.27}_{-0.17}$ | $-10.882^{+0.008}_{-0.032}$ | 0.024 | $0.21\pm0.02$ | $1.352^{+0.426}_{-0.266}$ | $26.302^{+19.514}_{-9.489}$ | BHB | 0.011 |
| 2MASSJ04034798-3502560 | $11195^{+410}_{-197}$ | $3.81\pm0.23$ | $3.92^{+0.35}_{-0.20}$ | $-10.981^{+0.024}_{-0.060}$ | 0.006 | $0.18\pm0.03$ | $1.250^{+0.498}_{-0.292}$ | $22.821^{+22.176}_{-9.588}$ | BHB | 0.030 |
| GaiaDR32910426764992603136 | $11328^{+211}_{-175}$ | $3.83\pm0.23$ | $3.74^{+0.36}_{-0.20}$ | $-10.928^{+0.024}_{-0.025}$ | $0.000^{+0.002}_{-0.000}$ | $0.17\pm0.02$ | $1.526^{+0.635}_{-0.353}$ | $34.751^{+35.120}_{-14.296}$ | BHB | 0.000 |
| GaiaDR34788061191196841856 | $11363^{+302}_{-231}$ | $3.75\pm0.23$ | $3.57^{+0.47}_{-0.23}$ | $-10.922^{+0.040}_{-0.035}$ | $0.000^{+0.012}_{-0.000}$ | $0.14\pm0.02$ | $1.855^{+0.998}_{-0.496}$ | $52.258^{+71.886}_{-24.440}$ | BHB | 0.029 |
| GaiaDR34799452818855840512 | $11592^{+255}_{-215}$ | $3.77\pm0.23$ | $3.50^{+0.62}_{-0.26}$ | $-10.952^{+0.005}_{-0.047}$ | $0.060^{+0.009}_{-0.020}$ | $0.12\pm0.02$ | $2.027^{+1.451}_{-0.612}$ | $67.295^{+131.200}_{-34.646}$ | BHB | 0.012 |
| GaiaDR32890820995200599552 | $11756^{+403}_{-349}$ | $3.73\pm0.23$ | $3.23^{+0.48}_{-0.24}$ | $-10.752^{+0.044}_{-0.044}$ | $0.000^{+0.017}_{-0.000}$ | $0.14\pm0.02$ | $2.768^{+1.529}_{-0.757}$ | $132.988^{+190.042}_{-63.823}$ | BHB | 0.000 |
| 2MASSJ04425568-5652052 | $11805^{+374}_{-268}$ | $3.89\pm0.23$ | $3.43^{+0.35}_{-0.20}$ | $-10.773^{+0.030}_{-0.014}$ | $0.000^{+0.005}_{-0.000}$ | $0.17\pm0.02$ | $2.189^{+0.894}_{-0.499}$ | $85.136^{+85.157}_{-35.020}$ | BHB | 0.016 |
| GaiaDR32891965204551361536 | $11880^{+417}_{-368}$ | $3.76\pm0.23$ | $4.27^{+0.29}_{-0.18}$ | $-11.128^{+0.009}_{-0.010}$ | $0.057^{+0.017}_{-0.015}$ | $0.20\pm0.04$ | $0.828^{+0.278}_{-0.167}$ | $12.415^{+10.049}_{-4.669}$ | BHB | 0.015 |
| GaiaDR32912553697220538624 | $12033^{+237}_{-310}$ | $3.80\pm0.23$ | $3.44^{+0.45}_{-0.22}$ | $-10.843^{+0.025}_{-0.019}$ | $0.000^{+0.004}_{-0.000}$ | $0.15\pm0.02$ | $2.170^{+1.114}_{-0.557}$ | $88.196^{+114.553}_{-39.850}$ | BHB | 0.000 |
| GaiaDR35562130536932472448 | $12041^{+1552}_{-1166}$ | $3.95\pm0.23$ | $4.39^{+0.52}_{-0.33}$ | $-11.213^{+0.150}_{-0.187}$ | $0.047^{+0.029}_{-0.047}$ | $0.19\pm0.03$ | $0.721^{+0.435}_{-0.276}$ | $10.057^{+18.765}_{-6.569}$ | BHB | 0.012 |
| GaiaDR355582224558606801664 | $12192^{+521}_{-835}$ | $4.04\pm0.23$ | $4.33^{+0.26}_{-0.16}$ | $-11.121^{+0.007}_{-0.014}$ | $0.054^{+0.033}_{-0.051}$ | $0.22\pm0.04$ | $0.772^{+0.234}_{-0.146}$ | $11.500^{+8.744}_{-4.435}$ | BHB | 0.060 |
| EC04415-3304 | $12212^{+171}_{-153}$ | $3.88\pm0.23$ | $3.81^{+0.28}_{-0.17}$ | $-10.882^{+0.003}_{-0.013}$ | $0.022^{+0.005}_{-0.005}$ | $0.20\pm0.02$ | $1.420^{+0.465}_{-0.282}$ | $40.504^{+30.999}_{-14.567}$ | BHB | 0.000 |
| GaiaDR35482367496686173440 | $12222^{+208}_{-181}$ | $3.90\pm0.23$ | $3.69^{+0.30}_{-0.18}$ | $-10.844^{+0.003}_{-0.013}$ | $0.028^{+0.008}_{-0.007}$ | $0.19\pm0.02$ | $1.631^{+0.571}_{-0.337}$ | $53.697^{+44.437}_{-20.042}$ | BHB | 0.018 |
| GaiaDR35502786595845082752 | $12360^{+490}_{-302}$ | $3.89\pm0.23$ | $3.66^{+0.54}_{-0.25}$ | $-11.001^{+0.028}_{-0.043}$ | $0.000^{+0.021}_{-0.000}$ | $0.13\pm0.02$ | $1.674^{+1.036}_{-0.477}$ | $60.443^{+99.150}_{-29.963}$ | BHB | 0.045 |
| GaiaDR32912186636433177088 | $12433^{+556}_{-558}$ | $3.90\pm0.23$ | $3.21^{+0.57}_{-0.27}$ | $-10.796^{+0.079}_{-0.053}$ | $0.025^{+0.013}_{-0.025}$ | $0.13\pm0.02$ | $2.822^{+1.847}_{-0.863}$ | $171.677^{+304.956}_{-90.942}$ | BHB | 0.000 |
| 2MASSJ04032174-5439542 | $12567^{+247}_{-160}$ | $4.34\pm0.23$ | $2.97^{+0.44}_{-0.22}$ | $-10.604^{+0.005}_{-0.010}$ | $0.000^{+0.006}_{-0.000}$ | $0.15\pm0.02$ | $3.711^{+1.881}_{-0.938}$ | $313.200^{+399.457}_{-139.026}$ | BHB | 0.034 |

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|---|---|---|---|---|---|---|---|---|---|---|
| GaiaDR3466025801407764121 6 | $12745^{+1223}_{-856}$ | $3.95 \pm 0.23$ | $4.00^{+0.36}_{-0.42}$ | $-10.908^{+0.016}_{-0.354}$ | $0.030^{+0.045}_{-0.030}$ | $0.21 \pm 0.02$ | $1.140^{+0.478}_{-0.554}$ | $30.798^{+38.678}_{-22.630}$ | BHB | 0.109 |
| GaiaDR3475728170321760678 4 | $12865^{+254}_{-335}$ | $3.94 \pm 0.23$ | $4.00^{+0.24}_{-0.15}$ | $-10.916^{+0.006}_{-0.013}$ | $0.044^{+0.009}_{-0.011}$ | $0.23 \pm 0.02$ | $1.141^{+0.311}_{-0.202}$ | $31.823^{+20.100}_{-10.537}$ | BHB | 0.017 |
| EC04403-4454 | $13097^{+255}_{-262}$ | $3.94 \pm 0.23$ | $4.25^{+0.31}_{-0.18}$ | $-11.109^{+0.004}_{-0.047}$ | $0.031^{+0.010}_{-0.009}$ | $0.20 \pm 0.04$ | $0.853^{+0.300}_{-0.181}$ | $19.270^{+16.054}_{-7.390}$ | BHB | 0.022 |
| EC05198-4005 | $13242^{+374}_{-292}$ | $4.07 \pm 0.23$ | $4.23^{+0.28}_{-0.17}$ | $-11.084^{+0.004}_{-0.030}$ | $0.010^{+0.014}_{-0.010}$ | $0.20 \pm 0.03$ | $0.874^{+0.286}_{-0.175}$ | $21.368^{+16.557}_{-7.867}$ | BHB | 0.029 |
| GaiaDR3289651474744571494 4 | $13768^{+437}_{-395}$ | $4.12 \pm 0.23$ | $3.13^{+0.70}_{-0.27}$ | $-10.816^{+0.008}_{-0.028}$ | $0.027^{+0.008}_{-0.008}$ | $0.11 \pm 0.02$ | $3.073^{+2.483}_{-0.971}$ | $307.691^{+701.724}_{-165.328}$ | BHB | 0.000 |
| EC03477-5711 | $13885^{+270}_{-376}$ | $4.09 \pm 0.23$ | $4.22^{+0.31}_{-0.18}$ | $-11.117^{+0.005}_{-0.013}$ | $0.018^{+0.009}_{-0.012}$ | $0.19 \pm 0.03$ | $0.878^{+0.311}_{-0.183}$ | $25.563^{+21.605}_{-9.702}$ | BHB | 0.027 |
| GaiaDR3555722729918751603 2 | $13886^{+1502}_{-752}$ | $4.01 \pm 0.23$ | $4.05^{+0.39}_{-0.24}$ | $-11.057^{+0.047}_{-0.119}$ | $0.068^{+0.021}_{-0.035}$ | $0.17 \pm 0.03$ | $1.069^{+0.479}_{-0.301}$ | $41.157^{+52.234}_{-21.424}$ | BHB | 0.000 |
| GaiaDR3547885428215804160 0 | $14027^{+748}_{-580}$ | $4.07 \pm 0.23$ | $3.97^{+0.34}_{-0.19}$ | $-11.022^{+0.009}_{-0.019}$ | $0.101^{+0.016}_{-0.013}$ | $0.18 \pm 0.03$ | $1.175^{+0.461}_{-0.260}$ | $49.232^{+48.564}_{-20.503}$ | BHB | 0.011 |
| GaiaDR3290949874281895091 2 | $14042^{+617}_{-464}$ | $4.10 \pm 0.23$ | $3.11^{+0.37}_{-0.20}$ | $-10.622^{+0.009}_{-0.011}$ | $0.039^{+0.012}_{-0.013}$ | $0.17 \pm 0.02$ | $3.164^{+1.352}_{-0.732}$ | $357.529^{+381.834}_{-151.453}$ | BHB | 0.009 |
| GaiaDR3556054761814741312 0 | $14141^{+428}_{-740}$ | $4.08 \pm 0.23$ | $4.08^{+0.34}_{-0.20}$ | $-11.066^{+0.039}_{-0.049}$ | $0.123^{+0.028}_{-0.031}$ | $0.18 \pm 0.03$ | $1.031^{+0.404}_{-0.239}$ | $37.107^{+36.036}_{-15.866}$ | BHB | 0.016 |
| GaiaDR3466029110250946201 6 | $14327^{+1003}_{-789}$ | $4.28 \pm 0.23$ | $4.32^{+0.32}_{-0.19}$ | $-11.152^{+0.012}_{-0.054}$ | $0.070^{+0.024}_{-0.022}$ | $0.19 \pm 0.04$ | $0.790^{+0.288}_{-0.173}$ | $24.272^{+23.066}_{-10.420}$ | BHB | 0.047 |
| EC04014-6515 | $14963^{+380}_{-615}$ | $4.34 \pm 0.23$ | $4.06^{+0.34}_{-0.19}$ | $-11.068^{+0.008}_{-0.015}$ | $0.047^{+0.011}_{-0.017}$ | $0.18 \pm 0.03$ | $1.064^{+0.420}_{-0.236}$ | $50.011^{+48.374}_{-20.339}$ | BHB | 0.044 |
| GaiaDR3551230963785559769 6 | $15180^{+1230}_{-1049}$ | $4.33 \pm 0.23$ | $4.46^{+0.23}_{-0.17}$ | $-11.082^{+0.047}_{-0.068}$ | $0.239^{+0.020}_{-0.025}$ | $0.27 \pm 0.03$ | $0.665^{+0.176}_{-0.131}$ | $21.434^{+16.026}_{-8.884}$ | BHB | 0.000 |
| GaiaDR3548536892291196057 6 | $15426^{+641}_{-531}$ | $4.37 \pm 0.23$ | $4.17^{+0.28}_{-0.17}$ | $-11.067^{+0.006}_{-0.015}$ | $0.088^{+0.016}_{-0.020}$ | $0.20 \pm 0.03$ | $0.928^{+0.304}_{-0.185}$ | $44.509^{+35.447}_{-16.739}$ | BHB | 0.022 |
| EC05415-4919 | $15441^{+924}_{-889}$ | $4.60 \pm 0.22$ | $4.63^{+0.25}_{-0.17}$ | $-11.240^{+0.045}_{-0.036}$ | 0.046 | $0.23 \pm 0.04$ | $0.549^{+0.161}_{-0.107}$ | $15.542^{+11.689}_{-6.081}$ | BHB | 0.008 |
| GaiaDR3548387049472226969 6 | $15785^{+1540}_{-996}$ | $4.35 \pm 0.23$ | $4.22^{+0.39}_{-0.21}$ | $-11.175^{+0.029}_{-0.046}$ | 0.085 | $0.17 \pm 0.03$ | $0.884^{+0.392}_{-0.215}$ | $46.211^{+56.701}_{-22.101}$ | BHB | 0.061 |
| GaiaDR3466176028627908416 0 | $16424^{+2161}_{-193}$ | $4.70 \pm 0.22$ | $5.79^{+0.08}_{-0.07}$ | $-11.365^{+0.006}_{-0.020}$ | $0.000^{+0.046}_{-0.000}$ | $0.65 \pm 0.09$ | $0.145^{+0.013}_{-0.011}$ | $1.531^{+0.790}_{-0.324}$ | BHB | 0.019 |
| EC05020-5526 | $16610^{+708}_{-412}$ | $4.56 \pm 0.22$ | $4.33^{+0.30}_{-0.18}$ | $-11.156^{+0.015}_{-0.030}$ | 0.018 | $0.20 \pm 0.03$ | $0.772^{+0.264}_{-0.160}$ | $42.110^{+34.883}_{-16.162}$ | BHB | 0.009 |
| TYC8917-1545-1 | $16904^{+1090}_{-755}$ | $4.56 \pm 0.22$ | $2.88^{+0.47}_{-0.23}$ | $-10.571^{+0.011}_{-0.038}$ | $0.110^{+0.016}_{-0.022}$ | $0.14 \pm 0.02$ | $4.103^{+2.229}_{-1.087}$ | $1282.056^{+1845.659}_{-618.177}$ | BHB | 0.017 |
| GaiaDR3560315084186696780 8 | $17128^{+998}_{-774}$ | $4.62 \pm 0.22$ | $3.06^{+0.55}_{-0.25}$ | $-10.708^{+0.012}_{-0.033}$ | $0.116^{+0.011}_{-0.014}$ | $0.13 \pm 0.02$ | $3.340^{+2.118}_{-0.949}$ | $886.317^{+1522.465}_{-448.352}$ | BHB | 0.000 |
| EC05199-4116 | $17537^{+561}_{-295}$ | $4.90 \pm 0.22$ | $4.70^{+0.30}_{-0.20}$ | $-11.300^{+0.010}_{-0.090}$ | $0.000^{+0.018}_{-0.000}$ | $0.21 \pm 0.04$ | $0.507^{+0.173}_{-0.114}$ | $22.464^{+18.269}_{-9.125}$ | BHB | 0.000 |
| GaiaDR3548051585038626086 4 | $17567^{+2433}_{-362}$ | $4.69 \pm 0.22$ | $5.29^{+0.14}_{-0.10}$ | $-11.370^{+0.007}_{-0.002}$ | $0.000^{+0.033}_{-0.000}$ | $0.37 \pm 0.04$ | $0.257^{+0.040}_{-0.031}$ | $6.471^{+4.024}_{-1.924}$ | BHB | 0.000 |
| GaiaDR3551010147490750656 0 | $18595^{+1404}_{-1442}$ | $4.79 \pm 0.22$ | $3.70^{+0.52}_{-0.24}$ | $-11.009^{+0.016}_{-0.039}$ | $0.094^{+0.024}_{-0.024}$ | $0.13 \pm 0.02$ | $1.596^{+0.951}_{-0.443}$ | $275.851^{+455.462}_{-143.100}$ | BHB | 0.028 |
| TYC8894-1508-1 | $19770^{+230}_{-1733}$ | $4.81 \pm 0.22$ | $2.53^{+0.32}_{-0.19}$ | $-10.278^{+0.019}_{-0.025}$ | $0.033^{+0.009}_{-0.025}$ | $0.19 \pm 0.03$ | $6.200^{+2.277}_{-1.333}$ | $4733.712^{+4330.493}_{-1983.742}$ | BHB | 0.044 |

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|---|---|---|---|---|---|---|---|---|---|---|
| GaiaDR32894791842787640192 | $20660^{+2747}_{-761}$ | $5.27 \pm 0.20$ | $5.90^{+0.14}_{-0.21}$ | $-11.514^{+0.013}_{-0.140}$ | $0.002^{+0.024}_{-0.002}$ | $0.50 \pm 0.06$ | $0.128^{+0.020}_{-0.030}$ | $2.849^{+1.850}_{-1.199}$ | sdB | 0.000 |
| GaiaDR34661671844257324288 | $20895^{+2667}_{-757}$ | $5.07 \pm 0.21$ | $5.73^{+0.10}_{-0.12}$ | $-11.359^{+0.012}_{-0.069}$ | 0.125 | $0.61 \pm 0.09$ | $0.155^{+0.018}_{-0.021}$ | $4.390^{+2.498}_{-1.315}$ | sdB | 0.043 |
| GaiaDR34792952987147830656 | $21854^{+2355}_{-1940}$ | $5.04 \pm 0.21$ | $5.07^{+0.26}_{-0.19}$ | $-11.424^{+0.060}_{-0.076}$ | $0.026^{+0.022}_{-0.023}$ | $0.25 \pm 0.03$ | $0.330^{+0.100}_{-0.072}$ | $22.766^{+21.262}_{-10.692}$ | sdB | 0.000 |
| TYC7094-1628-1 | $22281^{+2430}_{-2195}$ | $5.15 \pm 0.20$ | $2.89^{+0.31}_{-0.19}$ | $-10.443^{+0.022}_{-0.039}$ | $0.116^{+0.028}_{-0.028}$ | $0.19 \pm 0.02$ | $4.084^{+1.465}_{-0.879}$ | $3787.707^{+4068.947}_{-1819.868}$ | sdB | 0.045 |
| GaiaDR34723745773925604352 | $22480^{+1196}_{-1033}$ | $5.18 \pm 0.20$ | $5.31^{+0.19}_{-0.14}$ | $-11.482^{+0.031}_{-0.025}$ | $0.000^{+0.023}_{-0.000}$ | $0.29 \pm 0.05$ | $0.252^{+0.055}_{-0.040}$ | $14.817^{+8.249}_{-4.877}$ | sdB | 0.000 |
| GaiaDR35298070003345815680 | $22987^{+4923}_{-4087}$ | $5.30 \pm 0.20$ | $5.13^{+0.28}_{-0.30}$ | $-11.407^{+0.043}_{-0.206}$ | $0.137^{+0.046}_{-0.051}$ | $0.26 \pm 0.05$ | $0.309^{+0.100}_{-0.105}$ | $22.559^{+38.866}_{-15.293}$ | sdB | 0.035 |
| GaiaDR35289902036399060864 | $23078^{+6916}_{-5091}$ | $5.35 \pm 0.19$ | $5.49^{+0.22}_{-0.22}$ | $-11.470^{+0.055}_{-0.134}$ | $0.125^{+0.048}_{-0.084}$ | $0.36 \pm 0.05$ | $0.203^{+0.051}_{-0.052}$ | $10.336^{+21.627}_{-7.179}$ | sdB | 0.004 |
| GaiaDR35565971268488957952 | $23764^{+3037}_{-3201}$ | $5.52 \pm 0.18$ | $5.77^{+0.12}_{-0.10}$ | $-11.515^{+0.027}_{-0.033}$ | $0.059^{+0.051}_{-0.059}$ | $0.46 \pm 0.05$ | $0.148^{+0.021}_{-0.018}$ | $6.265^{+4.670}_{-2.914}$ | sdB | 0.038 |
| TYC8926-1746-1 | $24020^{+1369}_{-1386}$ | $5.29 \pm 0.20$ | $2.98^{+0.30}_{-0.18}$ | $-10.496^{+0.027}_{-0.009}$ | $0.187^{+0.012}_{-0.013}$ | $0.20 \pm 0.02$ | $3.678^{+1.276}_{-0.762}$ | $4070.590^{+3605.615}_{-1660.519}$ | sdB | 0.000 |
| TYC8563-1188-1 | $24394^{+1241}_{-1265}$ | $5.34 \pm 0.19$ | $3.09^{+0.40}_{-0.21}$ | $-10.629^{+0.014}_{-0.025}$ | $0.221^{+0.011}_{-0.013}$ | $0.16 \pm 0.02$ | $3.238^{+1.487}_{-0.784}$ | $3354.393^{+3956.273}_{-1507.795}$ | sdB | 0.005 |
| GaiaDR32897695519854993408 | $24453^{+2289}_{-2254}$ | $5.16 \pm 0.20$ | $5.08^{+0.20}_{-0.16}$ | $-11.315^{+0.054}_{-0.063}$ | $0.010^{+0.025}_{-0.010}$ | $0.33 \pm 0.03$ | $0.327^{+0.076}_{-0.059}$ | $34.282^{+25.365}_{-14.654}$ | sdB | 0.000 |
| GaiaDR35297646553926893952 | $24498^{+1579}_{-906}$ | $5.40 \pm 0.19$ | $3.55^{+0.42}_{-0.22}$ | $-10.871^{+0.019}_{-0.038}$ | 0.173 | $0.15 \pm 0.02$ | $1.908^{+0.926}_{-0.481}$ | $1236.966^{+1560.213}_{-570.382}$ | sdB | 0.000 |
| GaiaDR35273521928782122496 | $24593^{+1944}_{-1896}$ | $5.35 \pm 0.19$ | $5.48^{+0.17}_{-0.15}$ | $-11.471^{+0.017}_{-0.080}$ | $0.084^{+0.035}_{-0.036}$ | $0.35 \pm 0.05$ | $0.207^{+0.040}_{-0.036}$ | $13.991^{+8.570}_{-5.493}$ | sdB | 0.004 |
| GaiaDR34819054598621297664 | $24722^{+1311}_{-1519}$ | $5.48 \pm 0.18$ | $6.19^{+0.09}_{-0.08}$ | $-11.672^{+0.014}_{-0.005}$ | $0.017^{+0.015}_{-0.017}$ | $0.52 \pm 0.07$ | $0.091^{+0.010}_{-0.008}$ | $2.773^{+0.964}_{-0.737}$ | sdB | 0.002 |
| GaiaDR35297349445274784640 | $24755^{+1982}_{-2078}$ | $5.31 \pm 0.20$ | $3.29^{+0.70}_{-0.28}$ | $-10.909^{+0.037}_{-0.009}$ | $0.182^{+0.016}_{-0.019}$ | $0.11 \pm 0.02$ | $2.581^{+2.078}_{-0.818}$ | $2264.092^{+5354.303}_{-1289.445}$ | sdB | 0.013 |
| GaiaDR35298241355354315136 | $24800^{+6713}_{-3178}$ | $7.00 \pm 0.15$ | $7.32^{+0.15}_{-0.17}$ | $-11.903^{+0.065}_{-0.093}$ | $0.013^{+0.128}_{-0.013}$ | $1.11 \pm 0.13$ | $0.025^{+0.004}_{-0.005}$ | $0.221^{+0.343}_{-0.117}$ | WD | 0.038 |
| GaiaDR355575406654503684736 | $24927^{+2106}_{-2263}$ | $5.49 \pm 0.18$ | $5.89^{+0.13}_{-0.11}$ | $-11.584^{+0.023}_{-0.037}$ | $0.034^{+0.034}_{-0.034}$ | $0.44 \pm 0.06$ | $0.129^{+0.019}_{-0.016}$ | $5.776^{+3.105}_{-2.114}$ | sdB | 0.000 |
| TYC7632-1541-1 | $25047^{+294}_{-300}$ | $5.44 \pm 0.19$ | $2.67^{+0.43}_{-0.22}$ | $-10.438^{+0.005}_{-0.030}$ | 0.112 | $0.15 \pm 0.03$ | $5.261^{+2.625}_{-1.327}$ | $9814.129^{+12253.750}_{-4339.877}$ | sdB | 0.004 |
| GaiaDR35565037503938846080 | $25172^{+1925}_{-1879}$ | $5.40 \pm 0.19$ | $5.47^{+0.15}_{-0.15}$ | $-11.387^{+0.020}_{-0.083}$ | $0.150^{+0.016}_{-0.019}$ | $0.42 \pm 0.04$ | $0.208^{+0.035}_{-0.035}$ | $15.379^{+8.527}_{-5.835}$ | sdB | 0.003 |
| GaiaDR34662151613612027776 | $25465^{+6333}_{-4729}$ | $5.40 \pm 0.19$ | $5.83^{+0.15}_{-0.17}$ | $-11.438^{+0.045}_{-0.096}$ | $0.129^{+0.057}_{-0.068}$ | $0.58 \pm 0.12$ | $0.137^{+0.023}_{-0.027}$ | $7.041^{+10.808}_{-4.304}$ | sdB | 0.056 |
| GaiaDR35485330440005020544 | $25583^{+9226}_{-3208}$ | $5.32 \pm 0.19$ | $5.74^{+0.29}_{-0.29}$ | $-11.559^{+0.098}_{-0.182}$ | $0.000^{+0.075}_{-0.000}$ | $0.39 \pm 0.05$ | $0.153^{+0.051}_{-0.051}$ | $10.088^{+23.423}_{-6.545}$ | sdB | 0.005 |
| GaiaDR32925537589514023680 | $25600^{+5220}_{-3041}$ | $5.36 \pm 0.19$ | $5.23^{+0.28}_{-0.26}$ | $-11.465^{+0.054}_{-0.165}$ | $0.135^{+0.029}_{-0.077}$ | $0.26 \pm 0.05$ | $0.274^{+0.088}_{-0.082}$ | $30.142^{+43.451}_{-17.907}$ | sdB | 0.002 |
| GaiaDR35476909069993267328 | $25744^{+2265}_{-886}$ | $5.33 \pm 0.19$ | $5.69^{+0.18}_{-0.14}$ | $-11.637^{+0.015}_{-0.051}$ | 0.049 | $0.31 \pm 0.06$ | $0.162^{+0.034}_{-0.026}$ | $11.072^{+6.525}_{-3.744}$ | sdB | 0.006 |
| GaiaDR35604541105599368960 | $25798^{+3650}_{-3629}$ | $5.44 \pm 0.19$ | $5.60^{+0.15}_{-0.11}$ | $-11.536^{+0.039}_{-0.002}$ | $0.074^{+0.026}_{-0.036}$ | $0.37 \pm 0.06$ | $0.179^{+0.030}_{-0.023}$ | $12.871^{+10.860}_{-6.252}$ | sdB | 0.006 |

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|---|---|---|---|---|---|---|---|---|---|---|
| EC05411-3251 | $25838^{+1185}_{-1164}$ | $5.40 \pm 0.19$ | $5.34^{+0.22}_{-0.17}$ | $-11.513^{+0.013}_{-0.086}$ | $0.012^{+0.012}_{-0.012}$ | $0.27 \pm 0.05$ | $0.243^{+0.062}_{-0.048}$ | $23.687^{+15.061}_{-9.004}$ | sdB | 0.004 |
| GaiaDR35493836944855182080 | $26131^{+2779}_{-4946}$ | $5.47 \pm 0.18$ | $5.43^{+0.25}_{-0.27}$ | $-11.534^{+0.034}_{-0.185}$ | $0.168^{+0.037}_{-0.168}$ | $0.28 \pm 0.05$ | $0.218^{+0.064}_{-0.068}$ | $16.940^{+20.406}_{-11.014}$ | sdB | 0.011 |
| GaiaDR35505887424795470336 | $26197^{+6363}_{-2285}$ | $5.45 \pm 0.19$ | $5.73^{+0.19}_{-0.24}$ | $-11.543^{+0.042}_{-0.152}$ | $0.147^{+0.046}_{-0.088}$ | $0.39 \pm 0.06$ | $0.154^{+0.035}_{-0.042}$ | $10.871^{+14.650}_{-5.771}$ | sdB | 0.000 |
| HE0532-4503 | $26239^{+1390}_{-1370}$ | $5.54 \pm 0.18$ | $5.34^{+0.14}_{-0.11}$ | $-11.380^{+0.017}_{-0.032}$ | $0.029^{+0.015}_{-0.024}$ | $0.38 \pm 0.04$ | $0.241^{+0.039}_{-0.031}$ | $24.929^{+10.960}_{-7.375}$ | sdB | 0.027 |
| GaiaDR35301146574316946560 | $26590^{+2892}_{-2272}$ | $5.50 \pm 0.18$ | $5.43^{+0.20}_{-0.16}$ | $-11.515^{+0.031}_{-0.072}$ | $0.157^{+0.021}_{-0.036}$ | $0.30 \pm 0.05$ | $0.219^{+0.050}_{-0.040}$ | $22.001^{+17.019}_{-9.436}$ | sdB | 0.004 |
| GaiaDR35268879618888530304 | $26625^{+2339}_{-2032}$ | $5.46 \pm 0.19$ | $5.71^{+0.15}_{-0.13}$ | $-11.532^{+0.022}_{-0.065}$ | $0.081^{+0.019}_{-0.020}$ | $0.40 \pm 0.05$ | $0.158^{+0.027}_{-0.024}$ | $11.344^{+6.613}_{-4.231}$ | sdB | 0.007 |
| GaiaDR355570677075174060288 | $26671^{+6072}_{-3036}$ | $5.49 \pm 0.18$ | $5.57^{+0.22}_{-0.28}$ | $-11.507^{+0.043}_{-0.186}$ | $0.035^{+0.027}_{-0.035}$ | $0.35 \pm 0.04$ | $0.186^{+0.047}_{-0.059}$ | $16.041^{+22.913}_{-9.504}$ | sdB | 0.000 |
| GaiaDR35580746776322416384 | $26857^{+2449}_{-3034}$ | $5.50 \pm 0.18$ | $5.82^{+0.15}_{-0.12}$ | $-11.616^{+0.027}_{-0.041}$ | $0.104^{+0.033}_{-0.048}$ | $0.38 \pm 0.07$ | $0.139^{+0.024}_{-0.019}$ | $8.876^{+5.609}_{-3.726}$ | sdB | 0.030 |
| EC04302-6051 | $26955^{+1171}_{-1383}$ | $5.52 \pm 0.18$ | $5.27^{+0.17}_{-0.12}$ | $-11.437^{+0.033}_{-0.004}$ | 0.018 | $0.32 \pm 0.03$ | $0.263^{+0.052}_{-0.038}$ | $32.747^{+16.152}_{-10.074}$ | sdB | 0.003 |
| GaiaDR32891330099147135360 | $26996^{+2745}_{-2194}$ | $5.40 \pm 0.19$ | $5.49^{+0.19}_{-0.14}$ | $-11.561^{+0.025}_{-0.047}$ | $0.050^{+0.021}_{-0.020}$ | $0.29 \pm 0.06$ | $0.204^{+0.045}_{-0.034}$ | $20.334^{+14.640}_{-8.203}$ | sdB | 0.013 |
| GaiaDR35555241924784487424 | $27000^{+1769}_{-650}$ | $5.56 \pm 0.18$ | $5.95^{+0.13}_{-0.10}$ | $-11.679^{+0.011}_{-0.004}$ | $0.000^{+0.019}_{-0.000}$ | $0.39 \pm 0.06$ | $0.120^{+0.018}_{-0.014}$ | $7.261^{+2.939}_{-1.857}$ | sdB | 0.045 |
| GaiaDR35287305436608284288 | $27170^{+3061}_{-1811}$ | $5.71 \pm 0.16$ | $5.22^{+0.23}_{-0.15}$ | $-11.518^{+0.016}_{-0.017}$ | $0.020^{+0.037}_{-0.020}$ | $0.24 \pm 0.04$ | $0.280^{+0.074}_{-0.049}$ | $40.942^{+33.528}_{-16.643}$ | sdB | 0.001 |
| GaiaDR35583091106910179968 | $27235^{+2579}_{-2117}$ | $5.65 \pm 0.17$ | $5.84^{+0.15}_{-0.12}$ | $-11.643^{+0.023}_{-0.030}$ | $0.096^{+0.019}_{-0.019}$ | $0.37 \pm 0.06$ | $0.136^{+0.023}_{-0.018}$ | $9.412^{+5.586}_{-3.400}$ | sdB | 0.011 |
| GaiaDR32895491617518092928 | $27285^{+3648}_{-3464}$ | $5.46 \pm 0.18$ | $5.77^{+0.22}_{-0.16}$ | $-11.573^{+0.087}_{-0.068}$ | $0.000^{+0.032}_{-0.000}$ | $0.41 \pm 0.05$ | $0.148^{+0.038}_{-0.028}$ | $11.036^{+10.616}_{-5.495}$ | sdB | 0.003 |
| GaiaDR35531005149461925760 | $27370^{+2850}_{-2160}$ | $5.55 \pm 0.18$ | $5.98^{+0.12}_{-0.10}$ | $-11.607^{+0.024}_{-0.030}$ | $0.177^{+0.021}_{-0.019}$ | $0.47 \pm 0.07$ | $0.117^{+0.016}_{-0.013}$ | $7.048^{+4.025}_{-2.457}$ | sdB | 0.002 |
| GaiaDR35551605977270486016 | $27495^{+2188}_{-1614}$ | $5.53 \pm 0.18$ | $3.71^{+0.35}_{-0.21}$ | $-10.875^{+0.028}_{-0.076}$ | $0.042^{+0.024}_{-0.026}$ | $0.18 \pm 0.02$ | $1.586^{+0.642}_{-0.385}$ | $1336.873^{+1447.976}_{-622.817}$ | sdB | 0.001 |
| GaiaDR35301975503005168768 | $27505^{+770}_{-726}$ | $5.56 \pm 0.18$ | $5.64^{+0.13}_{-0.11}$ | $-11.464^{+0.011}_{-0.045}$ | 0.238 | $0.43 \pm 0.05$ | $0.172^{+0.025}_{-0.021}$ | $15.305^{+5.203}_{-3.827}$ | sdB | 0.006 |
| EC03564-5208 | $27651^{+1162}_{-803}$ | $5.66 \pm 0.18$ | $5.72^{+0.13}_{-0.13}$ | $-11.486^{+0.015}_{-0.072}$ | $0.000^{+0.012}_{-0.000}$ | $0.45 \pm 0.05$ | $0.156^{+0.024}_{-0.023}$ | $13.035^{+4.975}_{-3.841}$ | sdB | 0.013 |
| GaiaDR32896358337620445440 | $27679^{+2715}_{-881}$ | $5.57 \pm 0.18$ | $6.20^{+0.14}_{-0.19}$ | $-11.700^{+0.014}_{-0.130}$ | $0.000^{+0.018}_{-0.000}$ | $0.46 \pm 0.08$ | $0.091^{+0.015}_{-0.020}$ | $4.565^{+2.488}_{-1.838}$ | sdB | 0.002 |
| GaiaDR35293318566918120064 | $27682^{+2440}_{-2959}$ | $5.65 \pm 0.17$ | $5.64^{+0.14}_{-0.12}$ | $-11.464^{+0.039}_{-0.046}$ | $0.208^{+0.039}_{-0.043}$ | $0.44 \pm 0.05$ | $0.171^{+0.028}_{-0.023}$ | $15.139^{+9.147}_{-6.157}$ | sdB | 0.019 |
| GaiaDR32922088116600671232 | $28068^{+4985}_{-2876}$ | $5.65 \pm 0.17$ | $5.59^{+0.17}_{-0.16}$ | $-11.468^{+0.038}_{-0.085}$ | $0.085^{+0.041}_{-0.081}$ | $0.41 \pm 0.05$ | $0.181^{+0.035}_{-0.033}$ | $19.064^{+19.100}_{-8.937}$ | sdB | 0.009 |
| GaiaDR34659876930209812992 | $28154^{+8482}_{-1809}$ | $5.59 \pm 0.17$ | $5.26^{+0.20}_{-0.16}$ | $-11.433^{+0.027}_{-0.080}$ | $0.000^{+0.051}_{-0.000}$ | $0.30 \pm 0.04$ | $0.265^{+0.062}_{-0.050}$ | $48.011^{+75.976}_{-22.629}$ | sdB | 0.054 |
| GaiaDR34668327222493488640 | $28372^{+1297}_{-1185}$ | $5.65 \pm 0.17$ | $6.03^{+0.17}_{-0.12}$ | $-11.789^{+0.031}_{-0.021}$ | $0.000^{+0.023}_{-0.000}$ | $0.33 \pm 0.07$ | $0.110^{+0.021}_{-0.016}$ | $7.121^{+3.389}_{-2.130}$ | sdB | 0.007 |
| EC05270-3449 | $28395^{+1130}_{-2572}$ | $5.63 \pm 0.17$ | $5.48^{+0.19}_{-0.13}$ | $-11.519^{+0.063}_{-0.022}$ | $0.000^{+0.012}_{-0.000}$ | $0.34 \pm 0.04$ | $0.205^{+0.044}_{-0.031}$ | $23.217^{+13.194}_{-8.420}$ | sdB | 0.007 |

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|---|---|---|---|---|---|---|---|---|---|---|
| GaiaDR3291975852633773440 | $28595^{+1468}_{-1396}$ | $5.48 \pm 0.18$ | $3.71^{+0.24}_{-0.16}$ | $-10.763^{+0.028}_{-0.027}$ | 0.079 | $0.24 \pm 0.03$ | $1.587^{+0.430}_{-0.287}$ | $1526.445^{+1032.557}_{-553.076}$ | sdB | 0.000 |
| GaiaDR3531961135597655488O | $28652^{+4570}_{-2823}$ | $5.63 \pm 0.17$ | $5.60^{+0.16}_{-0.13}$ | $-11.534^{+0.032}_{-0.044}$ | $0.276^{+0.029}_{-0.023}$ | $0.36 \pm 0.06$ | $0.180^{+0.034}_{-0.027}$ | $20.623^{+18.410}_{-8.997}$ | sdB | 0.010 |
| GaiaDR34792844272935841792 | $29048^{+3147}_{-2292}$ | $5.58 \pm 0.18$ | $5.61^{+0.17}_{-0.13}$ | $-11.546^{+0.043}_{-0.045}$ | $0.042^{+0.024}_{-0.023}$ | $0.35 \pm 0.05$ | $0.178^{+0.036}_{-0.028}$ | $21.028^{+14.536}_{-8.243}$ | sdB | 0.002 |
| GaiaDR35501837854749153024 | $29592^{+3114}_{-1573}$ | $5.67 \pm 0.17$ | $5.87^{+0.14}_{-0.11}$ | $-11.619^{+0.021}_{-0.037}$ | $0.008^{+0.040}_{-0.008}$ | $0.40 \pm 0.05$ | $0.132^{+0.021}_{-0.017}$ | $12.761^{+7.284}_{-4.167}$ | sdB | 0.012 |
| GaiaDR35494064784282883968 | $30000^{+25000}_{-3709}$ | $5.59 \pm 0.18$ | $5.78^{+0.26}_{-0.35}$ | $-11.570^{+0.073}_{-0.246}$ | 0.296 | $0.39 \pm 0.08$ | $0.147^{+0.044}_{-0.060}$ | $19.731^{+144.173}_{-14.054}$ | sdB | 0.045 |
| GaiaDR35292572681421479424 | $30249^{+4225}_{-2776}$ | $5.65 \pm 0.17$ | $6.20^{+0.14}_{-0.23}$ | $-11.638^{+0.029}_{-0.149}$ | $0.163^{+0.026}_{-0.062}$ | $0.54 \pm 0.06$ | $0.090^{+0.015}_{-0.024}$ | $5.934^{+4.998}_{-2.935}$ | sdOB | 0.004 |
| GaiaDR35506874511359626112 | $30459^{+4748}_{-2244}$ | $5.53 \pm 0.18$ | $6.40^{+0.13}_{-0.14}$ | $-11.750^{+0.035}_{-0.077}$ | 0.165 | $0.54 \pm 0.09$ | $0.072^{+0.011}_{-0.012}$ | $4.193^{+3.352}_{-1.666}$ | sdOB | 0.017 |
| GaiaDR35268379581616128512 | $30823^{+4086}_{-2870}$ | $5.74 \pm 0.16$ | $5.98^{+0.11}_{-0.09}$ | $-11.633^{+0.028}_{-0.001}$ | $0.080^{+0.010}_{-0.049}$ | $0.46 \pm 0.06$ | $0.116^{+0.015}_{-0.012}$ | $11.355^{+7.894}_{-4.321}$ | sdOB | 0.002 |
| GaiaDR35489134200483057792 | $30867^{+4416}_{-2911}$ | $5.78 \pm 0.16$ | $5.66^{+0.26}_{-0.42}$ | $-11.579^{+0.030}_{-0.333}$ | $0.131^{+0.025}_{-0.024}$ | $0.31 \pm 0.05$ | $0.169^{+0.050}_{-0.082}$ | $21.990^{+26.532}_{-15.906}$ | sdOB | 0.005 |
| GaiaDR32902533474095583360 | $31398^{+1390}_{-1045}$ | $5.77 \pm 0.16$ | $5.98^{+0.13}_{-0.10}$ | $-11.666^{+0.016}_{-0.024}$ | 0.027 | $0.41 \pm 0.06$ | $0.116^{+0.017}_{-0.014}$ | $12.016^{+4.465}_{-3.057}$ | sdOB | 0.008 |
| GaiaDR35489474568050307584 | $31454^{+15860}_{-6337}$ | $5.78 \pm 0.16$ | $7.10^{+0.18}_{-0.53}$ | $-11.886^{+0.058}_{-0.421}$ | $0.207^{+0.063}_{-0.075}$ | $0.86 \pm 0.13$ | $0.032^{+0.007}_{-0.019}$ | $0.730^{+3.078}_{-0.609}$ | sdOB | 0.049 |
| GaiaDR32900136882345512832 | $32438^{+2851}_{-1964}$ | $5.89 \pm 0.14$ | $5.94^{+0.16}_{-0.12}$ | $-11.698^{+0.037}_{-0.029}$ | $0.000^{+0.023}_{-0.000}$ | $0.37 \pm 0.06$ | $0.122^{+0.022}_{-0.017}$ | $15.292^{+8.649}_{-5.187}$ | sdOB | 0.000 |
| GaiaDR35505415837386181376 | $33005^{+5184}_{-3862}$ | $5.87 \pm 0.15$ | $5.85^{+0.14}_{-0.12}$ | $-11.557^{+0.037}_{-0.048}$ | $0.143^{+0.022}_{-0.027}$ | $0.45 \pm 0.05$ | $0.135^{+0.022}_{-0.018}$ | $19.803^{+17.400}_{-8.985}$ | sdOB | 0.017 |
| GaiaDR35289692686809544832 | $33452^{+12054}_{-2537}$ | $5.86 \pm 0.15$ | $5.84^{+0.20}_{-0.20}$ | $-11.658^{+0.035}_{-0.118}$ | 0.210 | $0.34 \pm 0.06$ | $0.136^{+0.031}_{-0.031}$ | $24.909^{+49.727}_{-12.744}$ | sdOB | 0.019 |
| EC05397-5942 | $33752^{+2671}_{-4472}$ | $5.92 \pm 0.14$ | $5.74^{+0.17}_{-0.12}$ | $-11.575^{+0.061}_{-0.030}$ | $0.049^{+0.018}_{-0.029}$ | $0.39 \pm 0.05$ | $0.154^{+0.030}_{-0.022}$ | $26.305^{+17.272}_{-11.806}$ | sdOB | 0.000 |
| GaiaDR35608100568336403584 | $34077^{+6035}_{-3549}$ | $5.89 \pm 0.14$ | $5.87^{+0.15}_{-0.11}$ | $-11.666^{+0.043}_{-0.003}$ | $0.122^{+0.015}_{-0.041}$ | $0.37 \pm 0.06$ | $0.133^{+0.023}_{-0.017}$ | $22.708^{+21.739}_{-9.911}$ | sdOB | 0.005 |
| GaiaDR35507187936596071808 | $34373^{+6134}_{-4425}$ | $5.88 \pm 0.15$ | $5.91^{+0.23}_{-0.30}$ | $-11.686^{+0.041}_{-0.207}$ | $0.143^{+0.018}_{-0.030}$ | $0.34 \pm 0.06$ | $0.126^{+0.033}_{-0.043}$ | $18.969^{+24.574}_{-11.733}$ | sdOB | 0.017 |
| EC04455-5510 | $34432^{+3706}_{-1335}$ | $5.90 \pm 0.14$ | $5.75^{+0.14}_{-0.11}$ | $-11.583^{+0.042}_{-0.001}$ | 0.009 | $0.40 \pm 0.05$ | $0.151^{+0.024}_{-0.018}$ | $31.408^{+17.454}_{-9.542}$ | sdOB | 0.000 |
| GaiaDR32886359039575761152 | $34734^{+2097}_{-1482}$ | $7.00 \pm 0.15$ | $7.50^{+0.07}_{-0.11}$ | $-12.009^{+0.018}_{-0.062}$ | 0.043 | $1.05 \pm 0.14$ | $0.020^{+0.002}_{-0.002}$ | $0.532^{+0.172}_{-0.139}$ | WD | 0.009 |
| GaiaDR35507938666815379072 | $34837^{+7219}_{-1049}$ | $5.79 \pm 0.18$ | $5.81^{+0.12}_{-0.10}$ | $-11.589^{+0.012}_{-0.001}$ | 0.077 | $0.41 \pm 0.04$ | $0.142^{+0.020}_{-0.016}$ | $31.131^{+28.774}_{-9.876}$ | sdOB | 0.000 |
| GaiaDR35586026425002722560 | $34997^{+13418}_{-6636}$ | $5.77 \pm 0.15$ | $5.83^{+0.19}_{-0.17}$ | $-11.572^{+0.062}_{-0.084}$ | $0.469^{+0.028}_{-0.049}$ | $0.43 \pm 0.07$ | $0.138^{+0.030}_{-0.026}$ | $27.712^{+70.576}_{-17.865}$ | sdOB | 0.044 |
| GaiaDR35569370443043339392 | $35050^{+11224}_{-6113}$ | $5.72 \pm 0.15$ | $5.85^{+0.28}_{-0.25}$ | $-11.709^{+0.080}_{-0.151}$ | $0.044^{+0.038}_{-0.044}$ | $0.31 \pm 0.06$ | $0.135^{+0.043}_{-0.040}$ | $26.061^{+57.675}_{-17.388}$ | sdOB | 0.000 |
| GaiaDR35508713990015731584 | $35810^{+5376}_{-4781}$ | $5.90 \pm 0.14$ | $5.83^{+0.17}_{-0.16}$ | $-11.632^{+0.021}_{-0.089}$ | $0.093^{+0.010}_{-0.055}$ | $0.36 \pm 0.05$ | $0.139^{+0.027}_{-0.025}$ | $28.132^{+26.856}_{-14.293}$ | sdOB | 0.000 |
| EC05205-4514 | $35940^{+3594}_{-1857}$ | $5.65 \pm 0.16$ | $5.98^{+0.14}_{-0.12}$ | $-11.683^{+0.023}_{-0.041}$ | 0.049 | $0.39 \pm 0.05$ | $0.116^{+0.019}_{-0.016}$ | $21.444^{+12.073}_{-7.031}$ | sdOB | 0.000 |

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|---|---|---|---|---|---|---|---|---|---|---|
| GaiaDR35273847762178540416 | $36383^{+9185}_{-5748}$ | $5.78 \pm 0.16$ | $5.96^{+0.17}_{-0.16}$ | $-11.657^{+0.038}_{-0.086}$ | $0.150^{+0.011}_{-0.047}$ | $0.40 \pm 0.06$ | $0.118^{+0.023}_{-0.022}$ | $22.829^{+34.626}_{-13.048}$ | sdOB | 0.011 |
| GaiaDR35536198658273352832 | $37455^{+8907}_{-5063}$ | $5.44 \pm 0.17$ | $5.84^{+0.18}_{-0.19}$ | $-11.575^{+0.045}_{-0.108}$ | $0.305^{+0.012}_{-0.053}$ | $0.42 \pm 0.06$ | $0.136^{+0.028}_{-0.029}$ | $33.847^{+47.726}_{-18.632}$ | sdOB | 0.018 |
| GaiaDR35290993679646187136 | $37571^{+8392}_{-4890}$ | $5.52 \pm 0.15$ | $5.92^{+0.19}_{-0.15}$ | $-11.658^{+0.062}_{-0.061}$ | 0.198 | $0.39 \pm 0.06$ | $0.125^{+0.027}_{-0.021}$ | $29.699^{+38.513}_{-15.460}$ | sdOB | 0.000 |
| GaiaDR35276238581495650944 | $37647^{+17149}_{-7528}$ | $5.43 \pm 0.15$ | $6.18^{+0.27}_{-0.24}$ | $-11.740^{+0.099}_{-0.140}$ | $0.122^{+0.041}_{-0.056}$ | $0.43 \pm 0.07$ | $0.092^{+0.029}_{-0.026}$ | $16.995^{+56.318}_{-12.020}$ | sdOB | 0.014 |
| GaiaDR35551496124891134592 | $37753^{+17247}_{-7148}$ | $7.00 \pm 0.15$ | $7.85^{+0.15}_{-0.33}$ | $-12.071^{+0.061}_{-0.219}$ | $0.077^{+0.033}_{-0.049}$ | $1.37 \pm 0.16$ | $0.014^{+0.002}_{-0.005}$ | $0.314^{+1.039}_{-0.225}$ | WD | 0.027 |
| GaiaDR35502667363256067200 | $38657^{+16342}_{-8996}$ | $7.00 \pm 0.15$ | $7.26^{+0.28}_{-0.24}$ | $-12.023^{+0.117}_{-0.140}$ | $0.000^{+0.102}_{-0.000}$ | $0.79 \pm 0.11$ | $0.026^{+0.009}_{-0.007}$ | $1.500^{+4.744}_{-1.106}$ | WD | 0.167 |
| GaiaDR34658012742635181440 | $39080^{+15920}_{-23504}$ | $5.37 \pm 0.21$ | $6.54^{+0.69}_{-0.30}$ | $-11.721^{+0.258}_{-0.180}$ | $0.134^{+0.056}_{-0.134}$ | $0.70 \pm 0.13$ | $0.061^{+0.049}_{-0.021}$ | $6.962^{+39.046}_{-6.730}$ | sdOB | 0.101 |
| EC05112-5208 | $39275^{+4320}_{-3047}$ | $5.37 \pm 0.15$ | $5.62^{+0.22}_{-0.15}$ | $-11.693^{+0.036}_{-0.031}$ | $0.001^{+0.019}_{-0.001}$ | $0.26 \pm 0.05$ | $0.176^{+0.045}_{-0.031}$ | $69.672^{+56.459}_{-29.045}$ | sdOB | 0.020 |
| GaiaDR35481802760026598400 | $39329^{+13083}_{-6713}$ | $5.40 \pm 0.15$ | $6.08^{+0.17}_{-0.11}$ | $-11.709^{+0.084}_{-0.003}$ | $0.020^{+0.027}_{-0.020}$ | $0.45 \pm 0.04$ | $0.103^{+0.020}_{-0.013}$ | $25.617^{+52.919}_{-15.030}$ | sdOB | 0.006 |
| EC05593-5901 | $39999^{+2589}_{-2827}$ | $5.37 \pm 0.15$ | $5.74^{+0.13}_{-0.10}$ | $-11.560^{+0.027}_{-0.018}$ | 0.036 | $0.40 \pm 0.04$ | $0.152^{+0.023}_{-0.018}$ | $53.276^{+24.944}_{-17.007}$ | sdOB | 0.013 |
| GaiaDR355573712792418123264 | $40000^{+9589}_{-5000}$ | $5.37 \pm 0.15$ | $5.34^{+0.28}_{-0.18}$ | $-11.616^{+0.051}_{-0.052}$ | $0.039^{+0.030}_{-0.026}$ | $0.22 \pm 0.04$ | $0.242^{+0.078}_{-0.051}$ | $150.988^{+234.217}_{-84.116}$ | sdOB | 0.003 |
| GaiaDR32898224006991706496 | $40258^{+14742}_{-4448}$ | $5.38 \pm 0.15$ | $5.58^{+0.21}_{-0.17}$ | $-11.610^{+0.038}_{-0.074}$ | $0.019^{+0.015}_{-0.005}$ | $0.29 \pm 0.04$ | $0.185^{+0.046}_{-0.036}$ | $95.792^{+208.705}_{-52.324}$ | sdO | 0.002 |
| GaiaDR35583500404412606592 | $40607^{+14393}_{-4696}$ | $5.39 \pm 0.15$ | $5.19^{+0.22}_{-0.17}$ | $-11.440^{+0.038}_{-0.072}$ | $0.083^{+0.016}_{-0.005}$ | $0.27 \pm 0.04$ | $0.289^{+0.075}_{-0.057}$ | $240.408^{+510.094}_{-133.515}$ | sdO | 0.000 |
| GaiaDR35552637490976572672 | $40615^{+14384}_{-5038}$ | $5.37 \pm 0.15$ | $5.98^{+0.16}_{-0.18}$ | $-11.619^{+0.041}_{-0.102}$ | $0.075^{+0.017}_{-0.007}$ | $0.45 \pm 0.05$ | $0.115^{+0.022}_{-0.023}$ | $35.860^{+76.126}_{-19.659}$ | sdO | 0.001 |
| GaiaDR32924464917140535680 | $40999^{+3245}_{-2622}$ | $5.37 \pm 0.15$ | $3.94^{+0.22}_{-0.15}$ | $-10.859^{+0.022}_{-0.024}$ | 0.060 | $0.25 \pm 0.04$ | $1.214^{+0.308}_{-0.209}$ | $3846.145^{+2706.987}_{-1461.120}$ | sdO | 0.000 |
| GaiaDR35589612349035652992 | $41959^{+13040}_{-13330}$ | $5.40 \pm 0.15$ | $7.11^{+0.29}_{-0.28}$ | $-12.013^{+0.116}_{-0.174}$ | $0.126^{+0.023}_{-0.044}$ | $0.67 \pm 0.12$ | $0.032^{+0.011}_{-0.010}$ | $2.474^{+6.690}_{-2.012}$ | sdO | 0.000 |
| GaiaDR35486262894585667456 | $42079^{+12244}_{-3449}$ | $5.41 \pm 0.15$ | $4.47^{+0.28}_{-0.18}$ | $-11.181^{+0.027}_{-0.056}$ | $0.144^{+0.013}_{-0.012}$ | $0.22 \pm 0.02$ | $0.661^{+0.210}_{-0.137}$ | $1509.361^{+2572.548}_{-790.528}$ | sdO | 0.012 |
| GaiaDR34802807119594209152 | $42214^{+12786}_{-5108}$ | $5.42 \pm 0.15$ | $5.86^{+0.22}_{-0.17}$ | $-11.760^{+0.042}_{-0.072}$ | 0.053 | $0.28 \pm 0.06$ | $0.134^{+0.034}_{-0.026}$ | $58.049^{+103.911}_{-31.875}$ | sdO | 0.006 |
| GaiaDR35504619275570915840 | $43654^{+11345}_{-4292}$ | $5.54 \pm 0.15$ | $6.01^{+0.16}_{-0.14}$ | $-11.716^{+0.029}_{-0.065}$ | 0.076 | $0.37 \pm 0.06$ | $0.112^{+0.021}_{-0.018}$ | $45.489^{+64.046}_{-21.501}$ | sdO | 0.000 |
| GaiaDR35481538705437161856 | $43807^{+11193}_{-6722}$ | $5.44 \pm 0.15$ | $5.77^{+0.19}_{-0.18}$ | $-11.583^{+0.044}_{-0.106}$ | $0.051^{+0.016}_{-0.047}$ | $0.38 \pm 0.04$ | $0.148^{+0.032}_{-0.031}$ | $74.457^{+116.514}_{-43.245}$ | sdO | 0.015 |
| GaiaDR35554156496352728192 | $44000^{+5779}_{-4387}$ | $5.51 \pm 0.15$ | $5.57^{+0.18}_{-0.13}$ | $-11.583^{+0.032}_{-0.034}$ | 0.041 | $0.31 \pm 0.04$ | $0.185^{+0.038}_{-0.029}$ | $119.778^{+97.614}_{-51.849}$ | sdO | 0.000 |
| GaiaDR35578712301855424640 | $44232^{+10767}_{-10456}$ | $5.44 \pm 0.15$ | $7.01^{+0.21}_{-0.23}$ | $-12.007^{+0.077}_{-0.136}$ | $0.058^{+0.042}_{-0.058}$ | $0.61 \pm 0.12$ | $0.035^{+0.008}_{-0.009}$ | $3.989^{+7.055}_{-2.800}$ | sdO | 0.015 |
| GaiaDR34838676758008497536 | $44528^{+10472}_{-5200}$ | $7.00 \pm 0.15$ | $7.42^{+0.11}_{-0.11}$ | $-12.137^{+0.039}_{-0.059}$ | $0.002^{+0.023}_{-0.002}$ | $0.72 \pm 0.14$ | $0.022^{+0.003}_{-0.003}$ | $1.834^{+2.335}_{-0.855}$ | WD | 0.001 |
| EC05191-5330 | $44977^{+9451}_{-5431}$ | $5.46 \pm 0.15$ | $5.74^{+0.18}_{-0.14}$ | $-11.650^{+0.031}_{-0.042}$ | $0.024^{+0.011}_{-0.008}$ | $0.32 \pm 0.05$ | $0.153^{+0.031}_{-0.024}$ | $92.386^{+110.451}_{-45.680}$ | sdO | 0.013 |

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|---|---|---|---|---|---|---|---|---|---|---|
| GaiaDR35289487181214663808 | $45092^{+9908}_{-7755}$ | $5.49 \pm 0.15$ | $6.19^{+0.19}_{-0.18}$ | $-11.815^{+0.050}_{-0.094}$ | $0.148^{+0.016}_{-0.046}$ | $0.37 \pm 0.07$ | $0.091^{+0.020}_{-0.019}$ | $30.863^{+43.385}_{-18.374}$ | sdO | 0.014 |
| GaiaDR35486545533496209792 | $45173^{+9826}_{-12407}$ | $7.00 \pm 0.15$ | $7.31^{+0.22}_{-0.13}$ | $-12.080^{+0.099}_{-0.059}$ | $0.085^{+0.031}_{-0.043}$ | $0.74 \pm 0.14$ | $0.025^{+0.006}_{-0.004}$ | $2.370^{+3.586}_{-1.722}$ | WD | 0.027 |
| GALEXJ05580-2927 | $45424^{+5041}_{-2151}$ | $5.50 \pm 0.15$ | $5.26^{+0.17}_{-0.13}$ | $-11.419^{+0.028}_{-0.028}$ | 0.030 | $0.32 \pm 0.04$ | $0.266^{+0.053}_{-0.039}$ | $293.434^{+190.654}_{-102.504}$ | sdO | 0.021 |
| GaiaDR32894795008181793280 | $46531^{+8469}_{-8178}$ | $5.50 \pm 0.15$ | $5.56^{+0.17}_{-0.13}$ | $-11.528^{+0.048}_{-0.037}$ | $0.062^{+0.011}_{-0.009}$ | $0.35 \pm 0.04$ | $0.187^{+0.037}_{-0.028}$ | $149.229^{+169.362}_{-84.980}$ | sdO | 0.000 |
| GaiaDR35506623131217231232 | $47000^{+8000}_{-16019}$ | $7.00 \pm 0.15$ | $7.63^{+0.26}_{-0.21}$ | $-12.112^{+0.112}_{-0.118}$ | $0.055^{+0.044}_{-0.055}$ | $0.99 \pm 0.14$ | $0.017^{+0.005}_{-0.004}$ | $1.123^{+1.815}_{-0.900}$ | WD | 0.055 |
| EC05421-5127 | $47253^{+1811}_{-1624}$ | $5.58 \pm 0.15$ | $4.41^{+0.17}_{-0.13}$ | $-10.991^{+0.008}_{-0.037}$ | 0.040 | $0.31 \pm 0.03$ | $0.704^{+0.139}_{-0.104}$ | $2243.094^{+1062.100}_{-665.908}$ | sdO | 0.000 |
| GaiaDR35481509632801731840 | $48066^{+6934}_{-11327}$ | $5.58 \pm 0.15$ | $6.13^{+0.21}_{-0.15}$ | $-11.741^{+0.080}_{-0.060}$ | $0.060^{+0.026}_{-0.038}$ | $0.42 \pm 0.05$ | $0.098^{+0.023}_{-0.017}$ | $42.789^{+47.559}_{-28.091}$ | sdO | 0.000 |
| GaiaDR35489470994640261632 | $48080^{+6919}_{-14228}$ | $5.54 \pm 0.15$ | $6.26^{+0.34}_{-0.22}$ | $-11.729^{+0.140}_{-0.118}$ | $0.201^{+0.042}_{-0.070}$ | $0.50 \pm 0.06$ | $0.084^{+0.033}_{-0.022}$ | $29.400^{+47.792}_{-22.007}$ | sdO | 0.003 |
| GaiaDR35610505578222374656 | $48447^{+6553}_{-10417}$ | $5.61 \pm 0.15$ | $5.57^{+0.22}_{-0.15}$ | $-11.618^{+0.065}_{-0.039}$ | 0.177 | $0.30 \pm 0.04$ | $0.185^{+0.047}_{-0.033}$ | $160.097^{+172.310}_{-99.787}$ | sdO | 0.022 |
| GaiaDR35280303063668038784 | $48512^{+6487}_{-12627}$ | $5.57 \pm 0.15$ | $6.08^{+0.19}_{-0.14}$ | $-11.751^{+0.067}_{-0.046}$ | $0.037^{+0.021}_{-0.037}$ | $0.39 \pm 0.06$ | $0.103^{+0.022}_{-0.017}$ | $49.085^{+51.070}_{-33.787}$ | sdO | 0.034 |
| GaiaDR35277504153738526976 | $52281^{+2718}_{-5489}$ | $5.73 \pm 0.15$ | $5.54^{+0.16}_{-0.12}$ | $-11.536^{+0.027}_{-0.015}$ | 0.178 | $0.34 \pm 0.04$ | $0.194^{+0.035}_{-0.026}$ | $238.339^{+126.906}_{-90.285}$ | sdO | 0.007 |
| GaiaDR35564504073299975424 | $56775^{+8363}_{-5775}$ | $5.86 \pm 0.15$ | $6.04^{+0.17}_{-0.14}$ | $-11.741^{+0.026}_{-0.072}$ | 0.158 | $0.36 \pm 0.05$ | $0.108^{+0.021}_{-0.018}$ | $111.941^{+97.040}_{-50.289}$ | sdO | 0.002 |
| GaiaDR34794330984455278592 | $56835^{+18164}_{-5835}$ | $5.81 \pm 0.15$ | $4.97^{+0.33}_{-0.20}$ | $-11.481^{+0.030}_{-0.070}$ | 0.054 | $0.19 \pm 0.03$ | $0.372^{+0.139}_{-0.086}$ | $1601.374^{+3281.213}_{-923.540}$ | sdO | 0.007 |
| EC04281-4738 | $59794^{+15205}_{-8794}$ | $5.97 \pm 0.15$ | $5.71^{+0.18}_{-0.15}$ | $-11.620^{+0.042}_{-0.057}$ | 0.011 | $0.33 \pm 0.04$ | $0.158^{+0.034}_{-0.027}$ | $307.242^{+463.436}_{-169.688}$ | sdO | 0.003 |
| GaiaDR34800840024572132608 | $64214^{+10786}_{-13213}$ | $6.04 \pm 0.15$ | $7.10^{+0.14}_{-0.12}$ | $-11.970^{+0.057}_{-0.060}$ | $0.014^{+0.027}_{-0.014}$ | $0.74 \pm 0.08$ | $0.032^{+0.005}_{-0.004}$ | $15.047^{+15.798}_{-9.186}$ | sdO | 0.047 |
| EC05188-3346 | $71059^{+3941}_{-17294}$ | $6.20 \pm 0.15$ | $5.73^{+0.24}_{-0.16}$ | $-11.751^{+0.068}_{-0.018}$ | 0.024 | $0.26 \pm 0.05$ | $0.156^{+0.042}_{-0.028}$ | $466.664^{+407.605}_{-294.228}$ | sdO | 0.008 |
| GaiaDR34778428296810224384 | $71795^{+3204}_{-11378}$ | $6.60 \pm 0.15$ | $7.87^{+0.09}_{-0.06}$ | $-12.202^{+0.047}_{-0.013}$ | 0.016 | $1.08 \pm 0.12$ | $0.013^{+0.001}_{-0.001}$ | $3.924^{+1.402}_{-1.843}$ | WD | 0.000 |
| GaiaDR34799674297432740224 | $75851^{+15608}_{-4851}$ | $7.00 \pm 0.15$ | $7.50^{+0.08}_{-0.06}$ | $-12.180^{+0.029}_{-0.002}$ | $0.000^{+0.012}_{-0.000}$ | $0.74 \pm 0.10$ | $0.020^{+0.002}_{-0.001}$ | $13.034^{+13.144}_{-4.061}$ | WD | 0.000 |
| GaiaDR35495095610790929920 | $115000^{+0}_{-5880}$ | $7.00 \pm 0.15$ | $7.48^{+0.08}_{-0.07}$ | $-12.268^{+0.017}_{-0.002}$ | 0.074 | $0.59 \pm 0.11$ | $0.021^{+0.002}_{-0.002}$ | $62.473^{+14.280}_{-12.142}$ | WD | 0.007 |
| Parallax error $\leq 10\,\%$ | | | | | | | | | | |
| TYC6526-2311-1 | $8033^{+315}_{-248}$ | $3.16 \pm 0.22$ | $4.23^{+0.04}_{-0.07}$ | $-9.971^{+0.013}_{-0.038}$ | $0.029^{+0.046}_{-0.029}$ | $2.69 \pm 0.14$ | $0.874^{+0.037}_{-0.069}$ | $2.830^{+0.560}_{-0.497}$ | BHB | 0.031 |
| GaiaDR35489047575284726656 | $8377^{+836}_{-448}$ | $3.04 \pm 0.21$ | $5.35^{+0.27}_{-0.22}$ | $-11.109^{+0.114}_{-0.128}$ | $0.000^{+0.020}_{-0.000}$ | $0.72 \pm 0.04$ | $0.239^{+0.075}_{-0.062}$ | $0.265^{+0.238}_{-0.128}$ | BHB | 0.111 |
| GaiaDR34837506950652383616 | $8735^{+176}_{-83}$ | $3.27 \pm 0.22$ | $4.21^{+0.17}_{-0.13}$ | $-10.855^{+0.013}_{-0.055}$ | $0.000^{+0.005}_{-0.000}$ | $0.34 \pm 0.03$ | $0.893^{+0.170}_{-0.136}$ | $4.254^{+1.811}_{-1.213}$ | BHB | 0.061 |

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|---|---|---|---|---|---|---|---|---|---|---|
| 2MASSJ04464929-6115101 | $9129^{+321}_{-128}$ | $3.28 \pm 0.22$ | $4.05^{+0.31}_{-0.23}$ | $-10.897^{+0.089}_{-0.116}$ | $0.000^{+0.002}_{-0.000}$ | $0.26 \pm 0.02$ | $1.067^{+0.378}_{-0.283}$ | $7.352^{+6.253}_{-3.414}$ | BHB | 0.015 |
| 2MASSJ04310058-6234405 | $9663^{+622}_{-554}$ | $3.48 \pm 0.22$ | $4.44^{+0.26}_{-0.17}$ | $-11.052^{+0.089}_{-0.055}$ | $0.019^{+0.016}_{-0.019}$ | $0.29 \pm 0.02$ | $0.688^{+0.204}_{-0.137}$ | $3.758^{+2.873}_{-1.507}$ | BHB | 0.004 |
| GaiaDR34827086294840720128 | $10129^{+200}_{-144}$ | $3.46 \pm 0.22$ | $4.42^{+0.21}_{-0.16}$ | $-11.028^{+0.044}_{-0.061}$ | 0.019 | $0.30 \pm 0.02$ | $0.698^{+0.168}_{-0.128}$ | $4.664^{+2.557}_{-1.570}$ | BHB | 0.002 |
| CPD-201613 | $10248^{+211}_{-128}$ | $3.54 \pm 0.22$ | $3.29^{+0.10}_{-0.08}$ | $-9.846^{+0.046}_{-0.034}$ | $0.000^{+0.042}_{-0.000}$ | $1.24 \pm 0.10$ | $2.569^{+0.294}_{-0.227}$ | $66.482^{+16.785}_{-11.959}$ | BHB | 0.049 |
| HD41571 | $10505^{+147}_{-104}$ | $3.56 \pm 0.22$ | $2.99^{+0.05}_{-0.06}$ | $-9.353^{+0.020}_{-0.029}$ | $0.000^{+0.022}_{-0.000}$ | $2.69 \pm 0.22$ | $3.651^{+0.198}_{-0.239}$ | $146.693^{+18.546}_{-19.188}$ | BHB | 0.024 |
| 2MASSJ05022487-5338471 | $10671^{+482}_{-379}$ | $3.64 \pm 0.23$ | $4.09^{+0.27}_{-0.19}$ | $-10.911^{+0.081}_{-0.079}$ | $0.000^{+0.002}_{-0.000}$ | $0.27 \pm 0.02$ | $1.021^{+0.321}_{-0.229}$ | $12.340^{+9.496}_{-5.103}$ | BHB | 0.023 |
| GaiaDR34788177773788843264 | $11308^{+260}_{-209}$ | $3.67 \pm 0.23$ | $3.16^{+0.34}_{-0.19}$ | $-10.614^{+0.027}_{-0.024}$ | $0.000^{+0.005}_{-0.000}$ | $0.18 \pm 0.02$ | $2.981^{+1.152}_{-0.662}$ | $131.915^{+122.947}_{-52.663}$ | BHB | 0.004 |
| GaiaDR35503089133341793792 | $11485^{+494}_{-352}$ | $3.71 \pm 0.23$ | $6.07^{+0.10}_{-0.09}$ | $-11.373^{+0.040}_{-0.041}$ | $0.000^{+0.028}_{-0.000}$ | $0.89 \pm 0.05$ | $0.105^{+0.012}_{-0.011}$ | $0.176^{+0.054}_{-0.040}$ | BHB | 0.065 |
| GaiaDR34786811699311025280 | $11954^{+312}_{-491}$ | $3.82 \pm 0.23$ | $3.89^{+0.24}_{-0.17}$ | $-10.781^{+0.065}_{-0.065}$ | $0.016^{+0.015}_{-0.016}$ | $0.29 \pm 0.02$ | $1.292^{+0.353}_{-0.258}$ | $29.976^{+19.494}_{-11.210}$ | BHB | 0.016 |
| GaiaDR35501254220233096832 | $12421^{+1284}_{-300}$ | $4.07 \pm 0.23$ | $4.63^{+0.18}_{-0.13}$ | $-11.099^{+0.010}_{-0.048}$ | $0.000^{+0.028}_{-0.000}$ | $0.31 \pm 0.03$ | $0.552^{+0.112}_{-0.085}$ | $7.234^{+4.358}_{-2.399}$ | BHB | 0.018 |
| GaiaDR34839693737544526720 | $12494^{+303}_{-270}$ | $3.93 \pm 0.23$ | $3.86^{+0.24}_{-0.16}$ | $-10.850^{+0.022}_{-0.019}$ | 0.022 | $0.24 \pm 0.02$ | $1.333^{+0.365}_{-0.240}$ | $39.196^{+24.967}_{-13.127}$ | BHB | 0.000 |
| GaiaDR35590549785776715904 | $13167^{+1486}_{-987}$ | $4.36 \pm 0.23$ | $4.39^{+0.23}_{-0.33}$ | $-10.951^{+0.020}_{-0.252}$ | $0.176^{+0.026}_{-0.021}$ | $0.31 \pm 0.03$ | $0.723^{+0.196}_{-0.279}$ | $13.918^{+13.081}_{-8.648}$ | BHB | 0.003 |
| GaiaDR35283289509049221888 | $13170^{+471}_{-369}$ | $4.06 \pm 0.23$ | $3.83^{+0.22}_{-0.15}$ | $-10.808^{+0.006}_{-0.018}$ | $0.052^{+0.014}_{-0.012}$ | $0.25 \pm 0.02$ | $1.381^{+0.353}_{-0.235}$ | $52.363^{+31.584}_{-17.136}$ | BHB | 0.041 |
| GaiaDR35493283619927459200 | $13276^{+398}_{-350}$ | $4.14 \pm 0.23$ | $3.87^{+0.19}_{-0.14}$ | $-10.754^{+0.009}_{-0.052}$ | $0.138^{+0.012}_{-0.027}$ | $0.29 \pm 0.02$ | $1.312^{+0.291}_{-0.215}$ | $48.430^{+25.006}_{-15.208}$ | BHB | 0.000 |
| GaiaDR34873216339543617920 | $13414^{+962}_{-534}$ | $4.01 \pm 0.23$ | $4.04^{+0.26}_{-0.17}$ | $-10.936^{+0.030}_{-0.057}$ | $0.000^{+0.016}_{-0.000}$ | $0.23 \pm 0.02$ | $1.090^{+0.322}_{-0.218}$ | $36.298^{+27.677}_{-14.254}$ | BHB | 0.000 |
| GaiaDR35510794132873964416 | $13462^{+762}_{-644}$ | $4.10 \pm 0.23$ | $4.14^{+0.18}_{-0.13}$ | $-10.866^{+0.016}_{-0.032}$ | $0.124^{+0.016}_{-0.040}$ | $0.31 \pm 0.02$ | $0.967^{+0.196}_{-0.145}$ | $28.050^{+14.752}_{-9.025}$ | BHB | 0.005 |
| GaiaDR35556783057489973120 | $13626^{+223}_{-210}$ | $4.15 \pm 0.23$ | $4.03^{+0.24}_{-0.16}$ | $-10.938^{+0.006}_{-0.027}$ | 0.076 | $0.23 \pm 0.02$ | $1.091^{+0.307}_{-0.199}$ | $37.066^{+24.013}_{-12.420}$ | BHB | 0.013 |
| GaiaDR35282943575210812672 | $13699^{+358}_{-442}$ | $4.10 \pm 0.23$ | $4.06^{+0.18}_{-0.14}$ | $-10.837^{+0.006}_{-0.042}$ | $0.042^{+0.009}_{-0.036}$ | $0.29 \pm 0.02$ | $1.063^{+0.226}_{-0.165}$ | $35.523^{+17.540}_{-10.739}$ | BHB | 0.000 |
| EC05077-6225 | $13744^{+284}_{-256}$ | $4.15 \pm 0.23$ | $3.89^{+0.23}_{-0.16}$ | $-10.846^{+0.018}_{-0.035}$ | $0.020^{+0.020}_{-0.020}$ | $0.24 \pm 0.02$ | $1.282^{+0.343}_{-0.230}$ | $53.017^{+32.625}_{-17.630}$ | BHB | 0.000 |
| LB1723 | $13792^{+305}_{-183}$ | $4.17 \pm 0.23$ | $4.03^{+0.25}_{-0.16}$ | $-10.946^{+0.006}_{-0.016}$ | 0.006 | $0.23 \pm 0.02$ | $1.092^{+0.309}_{-0.198}$ | $39.462^{+25.762}_{-13.205}$ | BHB | 0.013 |
| GaiaDR35289520029124322816 | $13842^{+134}_{-130}$ | $4.25 \pm 0.23$ | $3.97^{+0.19}_{-0.13}$ | $-10.821^{+0.004}_{-0.010}$ | 0.179 | $0.28 \pm 0.02$ | $1.175^{+0.253}_{-0.177}$ | $45.721^{+21.881}_{-12.832}$ | BHB | 0.000 |
| EC04249-4926 | $14116^{+352}_{-184}$ | $4.24 \pm 0.23$ | $4.08^{+0.22}_{-0.15}$ | $-10.933^{+0.006}_{-0.017}$ | 0.018 | $0.25 \pm 0.02$ | $1.035^{+0.264}_{-0.176}$ | $39.086^{+22.820}_{-12.374}$ | BHB | 0.012 |
| EC05190-3512 | $14890^{+1145}_{-817}$ | $4.27 \pm 0.23$ | $3.14^{+0.39}_{-0.22}$ | $-10.634^{+0.060}_{-0.056}$ | $0.012^{+0.020}_{-0.012}$ | $0.17 \pm 0.02$ | $3.058^{+1.372}_{-0.780}$ | $428.767^{+512.163}_{-204.778}$ | BHB | 0.006 |
| GaiaDR35504359069272803584 | $15367^{+944}_{-784}$ | $4.37 \pm 0.23$ | $3.00^{+0.28}_{-0.17}$ | $-10.466^{+0.019}_{-0.026}$ | $0.114^{+0.017}_{-0.018}$ | $0.21 \pm 0.02$ | $3.609^{+1.153}_{-0.717}$ | $666.793^{+543.239}_{-262.870}$ | BHB | 0.000 |

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|---|---|---|---|---|---|---|---|---|---|---|
| GaiaDR35559754904622008576 | $15839^{+941}_{-760}$ | $4.39 \pm 0.23$ | $4.42^{+0.17}_{-0.13}$ | $-11.000^{+0.024}_{-0.030}$ | 0.133 | $0.32 \pm 0.02$ | $0.701^{+0.140}_{-0.104}$ | $28.307^{+14.925}_{-9.128}$ | BHB | 0.029 |
| GaiaDR35291808417761506048 | $15865^{+269}_{-275}$ | $4.52 \pm 0.23$ | $4.34^{+0.14}_{-0.11}$ | $-10.892^{+0.006}_{-0.026}$ | 0.122 | $0.36 \pm 0.02$ | $0.767^{+0.126}_{-0.097}$ | $33.610^{+12.234}_{-8.180}$ | BHB | 0.011 |
| HD57551 | $15880^{+1300}_{-1100}$ | $4.83 \pm 0.22$ | $3.05^{+0.06}_{-0.05}$ | $-9.825^{+0.016}_{-0.016}$ | $0.257^{+0.026}_{-0.026}$ | $0.98 \pm 0.07$ | $3.376^{+0.221}_{-0.202}$ | $657.898^{+259.442}_{-180.074}$ | BHB | 0.047 |
| GaiaDR34659994509217926656 | $16000^{+817}_{-652}$ | $4.55 \pm 0.22$ | $4.28^{+0.14}_{-0.11}$ | $-10.869^{+0.009}_{-0.011}$ | $0.061^{+0.014}_{-0.011}$ | $0.37 \pm 0.02$ | $0.818^{+0.131}_{-0.100}$ | $40.194^{+16.802}_{-11.001}$ | BHB | 0.017 |
| GaiaDR35553638939909612416 | $17948^{+1330}_{-1151}$ | $4.70 \pm 0.22$ | $3.41^{+0.20}_{-0.15}$ | $-10.537^{+0.015}_{-0.052}$ | $0.033^{+0.018}_{-0.021}$ | $0.28 \pm 0.02$ | $2.247^{+0.523}_{-0.382}$ | $478.561^{+310.503}_{-179.313}$ | BHB | 0.013 |
| GaiaDR35563724450835110144 | $18321^{+1270}_{-1098}$ | $4.76 \pm 0.22$ | $4.77^{+0.15}_{-0.12}$ | $-11.109^{+0.013}_{-0.044}$ | $0.097^{+0.016}_{-0.015}$ | $0.36 \pm 0.03$ | $0.470^{+0.082}_{-0.065}$ | $22.631^{+11.563}_{-7.446}$ | BHB | 0.000 |
| EC03417-6412 | $18631^{+345}_{-322}$ | $4.81 \pm 0.22$ | $4.62^{+0.13}_{-0.10}$ | $-11.013^{+0.006}_{-0.016}$ | 0.056 | $0.38 \pm 0.02$ | $0.554^{+0.084}_{-0.065}$ | $33.409^{+11.286}_{-7.668}$ | BHB | 0.036 |
| GaiaDR35486074637578941184 | $19160^{+840}_{-2313}$ | $4.80 \pm 0.22$ | $5.56^{+0.12}_{-0.13}$ | $-11.306^{+0.031}_{-0.069}$ | $0.024^{+0.035}_{-0.024}$ | $0.57 \pm 0.04$ | $0.189^{+0.027}_{-0.028}$ | $3.925^{+1.893}_{-1.619}$ | BHB | 0.090 |
| EC04577-5728 | $19687^{+313}_{-455}$ | $4.92 \pm 0.21$ | $4.86^{+0.14}_{-0.11}$ | $-11.148^{+0.012}_{-0.014}$ | 0.014 | $0.37 \pm 0.03$ | $0.421^{+0.066}_{-0.051}$ | $23.701^{+8.371}_{-5.634}$ | BHB | 0.025 |
| GaiaDR35569488881061691392 | $21083^{+408}_{-421}$ | $4.96 \pm 0.21$ | $4.99^{+0.12}_{-0.10}$ | $-11.140^{+0.007}_{-0.025}$ | 0.119 | $0.44 \pm 0.03$ | $0.361^{+0.049}_{-0.040}$ | $23.240^{+7.032}_{-5.063}$ | sdB | 0.008 |
| GaiaDR35315548321213848832 | $21449^{+33551}_{-6448}$ | $4.96 \pm 0.21$ | $5.52^{+0.26}_{-0.55}$ | $-11.222^{+0.087}_{-0.454}$ | $0.162^{+0.122}_{-0.098}$ | $0.65 \pm 0.04$ | $0.196^{+0.059}_{-0.124}$ | $7.265^{+219.895}_{-6.652}$ | sdB | 0.062 |
| GaiaDR35320235642361920512 | $21740^{+3044}_{-2958}$ | $5.30 \pm 0.20$ | $4.99^{+0.18}_{-0.22}$ | $-11.066^{+0.052}_{-0.132}$ | $0.218^{+0.047}_{-0.075}$ | $0.51 \pm 0.03$ | $0.364^{+0.074}_{-0.091}$ | $24.897^{+24.613}_{-13.558}$ | sdB | 0.037 |
| GaiaDR35566000474265771008 | $23337^{+5137}_{-4409}$ | $5.22 \pm 0.20$ | $5.64^{+0.13}_{-0.12}$ | $-11.354^{+0.043}_{-0.061}$ | $0.131^{+0.057}_{-0.066}$ | $0.56 \pm 0.05$ | $0.172^{+0.026}_{-0.025}$ | $7.930^{+10.417}_{-4.718}$ | sdB | 0.092 |
| GaiaDR35481089898534325760 | $24045^{+1288}_{-1359}$ | $5.26 \pm 0.20$ | $5.08^{+0.11}_{-0.09}$ | $-11.131^{+0.015}_{-0.028}$ | $0.044^{+0.012}_{-0.014}$ | $0.50 \pm 0.03$ | $0.326^{+0.040}_{-0.034}$ | $31.793^{+11.725}_{-8.644}$ | sdB | 0.011 |
| GaiaDR355608402693515282176 | $24199^{+1842}_{-1920}$ | $5.51 \pm 0.18$ | $5.36^{+0.09}_{-0.08}$ | $-11.204^{+0.020}_{-0.024}$ | $0.081^{+0.017}_{-0.020}$ | $0.58 \pm 0.03$ | $0.238^{+0.026}_{-0.022}$ | $17.472^{+7.591}_{-5.536}$ | sdB | 0.000 |
| GaiaDR35563671055801941888 | $24201^{+5206}_{-1934}$ | $5.29 \pm 0.20$ | $5.68^{+0.13}_{-0.19}$ | $-11.343^{+0.033}_{-0.115}$ | $0.000^{+0.054}_{-0.000}$ | $0.59 \pm 0.03$ | $0.164^{+0.025}_{-0.035}$ | $8.672^{+9.612}_{-3.942}$ | sdB | 0.098 |
| GaiaDR35298005303957937280 | $24437^{+9802}_{-7473}$ | $5.69 \pm 0.17$ | $5.83^{+0.51}_{-0.30}$ | $-11.407^{+0.198}_{-0.182}$ | $0.000^{+0.058}_{-0.000}$ | $0.64 \pm 0.03$ | $0.137^{+0.080}_{-0.048}$ | $6.245^{+24.189}_{-5.167}$ | sdB | 0.057 |
| EC04000-4327 | $24456^{+1104}_{-1068}$ | $5.32 \pm 0.19$ | $5.81^{+0.10}_{-0.08}$ | $-11.418^{+0.027}_{-0.026}$ | $0.000^{+0.015}_{-0.000}$ | $0.60 \pm 0.04$ | $0.142^{+0.016}_{-0.014}$ | $6.496^{+2.059}_{-1.546}$ | sdB | 0.014 |
| GaiaDR35493754107825032960 | $24998^{+5061}_{-5680}$ | $5.39 \pm 0.19$ | $5.02^{+0.16}_{-0.13}$ | $-11.152^{+0.054}_{-0.052}$ | $0.173^{+0.049}_{-0.077}$ | $0.45 \pm 0.02$ | $0.351^{+0.065}_{-0.053}$ | $42.567^{+55.130}_{-27.873}$ | sdB | 0.101 |
| GaiaDR35500688521500741888 | $24999^{+3218}_{-3595}$ | $5.32 \pm 0.19$ | $5.45^{+0.11}_{-0.10}$ | $-11.266^{+0.034}_{-0.034}$ | $0.077^{+0.034}_{-0.048}$ | $0.57 \pm 0.03$ | $0.213^{+0.027}_{-0.023}$ | $15.722^{+11.622}_{-7.532}$ | sdB | 0.037 |
| GaiaDR355602865896554778240 | $25023^{+2069}_{-1983}$ | $5.39 \pm 0.19$ | $5.48^{+0.12}_{-0.11}$ | $-11.316^{+0.021}_{-0.052}$ | $0.104^{+0.019}_{-0.031}$ | $0.51 \pm 0.04$ | $0.206^{+0.027}_{-0.026}$ | $14.845^{+7.500}_{-5.152}$ | sdB | 0.008 |
| GaiaDR355589850560800403584 | $25095^{+5141}_{-4405}$ | $5.44 \pm 0.19$ | $5.37^{+0.16}_{-0.14}$ | $-11.335^{+0.045}_{-0.065}$ | $0.165^{+0.039}_{-0.048}$ | $0.43 \pm 0.04$ | $0.235^{+0.043}_{-0.038}$ | $19.749^{+24.623}_{-11.401}$ | sdB | 0.020 |
| GaiaDR32900237590738880256 | $25148^{+1979}_{-1712}$ | $5.30 \pm 0.20$ | $5.58^{+0.11}_{-0.16}$ | $-11.272^{+0.020}_{-0.103}$ | $0.017^{+0.021}_{-0.017}$ | $0.62 \pm 0.04$ | $0.184^{+0.024}_{-0.035}$ | $11.842^{+6.001}_{-4.515}$ | sdB | 0.000 |
| GaiaDR355604181015542109824 | $25159^{+2832}_{-2819}$ | $5.51 \pm 0.18$ | $5.49^{+0.15}_{-0.11}$ | $-11.431^{+0.057}_{-0.003}$ | $0.096^{+0.030}_{-0.044}$ | $0.42 \pm 0.04$ | $0.204^{+0.034}_{-0.025}$ | $15.245^{+10.444}_{-6.403}$ | sdB | 0.003 |

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|---|---|---|---|---|---|---|---|---|---|---|
| GaiaDR3527809696230662536 | $25249^{+4158}_{-3885}$ | $5.40 \pm 0.19$ | $5.49^{+0.14}_{-0.12}$ | $-11.349^{+0.041}_{-0.046}$ | $0.161^{+0.031}_{-0.041}$ | $0.49 \pm 0.04$ | $0.203^{+0.032}_{-0.027}$ | $15.150^{+14.545}_{-7.856}$ | sdB | 0.015 |
| GaiaDR3556340157237334208 0 | $25401^{+1982}_{-1899}$ | $5.47 \pm 0.18$ | $5.42^{+0.13}_{-0.16}$ | $-11.258^{+0.022}_{-0.096}$ | $0.098^{+0.018}_{-0.040}$ | $0.53 \pm 0.03$ | $0.222^{+0.032}_{-0.040}$ | $17.931^{+9.544}_{-6.908}$ | sdB | 0.000 |
| GaiaDR3526895084232927744 0 | $25683^{+1955}_{-1982}$ | $5.45 \pm 0.19$ | $5.51^{+0.12}_{-0.10}$ | $-11.400^{+0.021}_{-0.022}$ | $0.116^{+0.016}_{-0.020}$ | $0.44 \pm 0.04$ | $0.200^{+0.028}_{-0.022}$ | $15.659^{+7.534}_{-5.160}$ | sdB | 0.014 |
| GaiaDR3548267910515340390 4 | $26052^{+3071}_{-2725}$ | $5.47 \pm 0.18$ | $5.85^{+0.17}_{-0.13}$ | $-11.435^{+0.068}_{-0.061}$ | $0.000^{+0.015}_{-0.000}$ | $0.61 \pm 0.03$ | $0.135^{+0.026}_{-0.021}$ | $7.581^{+5.658}_{-3.265}$ | sdB | 0.014 |
| GaiaDR3292460579206803033 6 | $26129^{+2603}_{-2652}$ | $5.31 \pm 0.20$ | $5.40^{+0.16}_{-0.11}$ | $-11.405^{+0.063}_{-0.006}$ | $0.034^{+0.027}_{-0.034}$ | $0.41 \pm 0.04$ | $0.225^{+0.041}_{-0.029}$ | $21.526^{+13.963}_{-8.604}$ | sdB | 0.000 |
| EC05147-5940 | $26251^{+1322}_{-707}$ | $5.56 \pm 0.18$ | $5.58^{+0.12}_{-0.10}$ | $-11.441^{+0.016}_{-0.026}$ | $0.000^{+0.017}_{-0.000}$ | $0.43 \pm 0.04$ | $0.184^{+0.026}_{-0.021}$ | $14.889^{+5.362}_{-3.663}$ | sdB | 0.001 |
| GaiaDR3560409106174547968 0 | $26566^{+2116}_{-1852}$ | $5.47 \pm 0.18$ | $5.17^{+0.14}_{-0.11}$ | $-11.263^{+0.021}_{-0.044}$ | $0.129^{+0.015}_{-0.021}$ | $0.40 \pm 0.03$ | $0.294^{+0.047}_{-0.039}$ | $39.234^{+20.495}_{-13.324}$ | sdB | 0.000 |
| EC05275-5809 | $26637^{+1626}_{-1545}$ | $5.52 \pm 0.18$ | $5.34^{+0.11}_{-0.09}$ | $-11.277^{+0.017}_{-0.023}$ | $0.023^{+0.015}_{-0.016}$ | $0.48 \pm 0.03$ | $0.242^{+0.030}_{-0.025}$ | $26.633^{+10.494}_{-7.455}$ | sdB | 0.027 |
| GaiaDR3560708602834077862 4 | $26999^{+4054}_{-5160}$ | $5.35 \pm 0.19$ | $5.36^{+0.15}_{-0.11}$ | $-11.256^{+0.057}_{-0.042}$ | $0.107^{+0.027}_{-0.047}$ | $0.52 \pm 0.03$ | $0.237^{+0.040}_{-0.031}$ | $26.253^{+24.876}_{-15.223}$ | sdB | 0.003 |
| GaiaDR3291865891163159014 4 | $27000^{+3411}_{-2605}$ | $5.43 \pm 0.19$ | $5.61^{+0.12}_{-0.11}$ | $-11.411^{+0.028}_{-0.046}$ | $0.065^{+0.028}_{-0.027}$ | $0.48 \pm 0.04$ | $0.178^{+0.026}_{-0.023}$ | $15.431^{+10.732}_{-6.152}$ | sdB | 0.035 |
| EC04329-4223 | $27000^{+1856}_{-991}$ | $5.43 \pm 0.19$ | $5.77^{+0.10}_{-0.08}$ | $-11.448^{+0.013}_{-0.019}$ | $0.006^{+0.020}_{-0.006}$ | $0.53 \pm 0.05$ | $0.148^{+0.016}_{-0.014}$ | $10.808^{+3.916}_{-2.581}$ | sdB | 0.042 |
| GaiaDR3528991413532438169 6 | $27042^{+5047}_{-3526}$ | $5.34 \pm 0.19$ | $5.50^{+0.17}_{-0.18}$ | $-11.407^{+0.043}_{-0.103}$ | $0.174^{+0.041}_{-0.095}$ | $0.42 \pm 0.04$ | $0.201^{+0.040}_{-0.042}$ | $19.515^{+22.030}_{-10.269}$ | sdB | 0.014 |
| GaiaDR3560861943474477337 6 | $27155^{+2385}_{-2948}$ | $5.62 \pm 0.17$ | $5.61^{+0.16}_{-0.12}$ | $-11.310^{+0.068}_{-0.053}$ | $0.027^{+0.020}_{-0.027}$ | $0.62 \pm 0.04$ | $0.177^{+0.033}_{-0.025}$ | $15.078^{+9.616}_{-6.237}$ | sdB | 0.000 |
| GaiaDR3557856843762901849 6 | $27292^{+2954}_{-2167}$ | $5.65 \pm 0.17$ | $5.51^{+0.14}_{-0.13}$ | $-11.350^{+0.043}_{-0.059}$ | 0.321 | $0.49 \pm 0.04$ | $0.199^{+0.033}_{-0.029}$ | $20.229^{+12.860}_{-7.688}$ | sdB | 0.009 |
| GaiaDR3556584970373310758 4 | $27312^{+2586}_{-1984}$ | $5.64 \pm 0.17$ | $5.41^{+0.10}_{-0.09}$ | $-11.270^{+0.022}_{-0.027}$ | $0.163^{+0.020}_{-0.024}$ | $0.53 \pm 0.03$ | $0.225^{+0.027}_{-0.023}$ | $25.869^{+13.127}_{-8.347}$ | sdB | 0.016 |
| GaiaDR3480169293635785177 6 | $27375^{+1461}_{-2813}$ | $5.52 \pm 0.18$ | $6.03^{+0.12}_{-0.09}$ | $-11.497^{+0.053}_{-0.029}$ | $0.035^{+0.023}_{-0.027}$ | $0.66 \pm 0.04$ | $0.109^{+0.016}_{-0.012}$ | $5.788^{+2.562}_{-2.068}$ | sdB | 0.007 |
| GaiaDR3529140253047068531 2 | $27409^{+3454}_{-2419}$ | $5.55 \pm 0.18$ | $5.62^{+0.12}_{-0.11}$ | $-11.376^{+0.027}_{-0.046}$ | $0.219^{+0.026}_{-0.029}$ | $0.53 \pm 0.04$ | $0.175^{+0.023}_{-0.021}$ | $15.994^{+10.698}_{-6.059}$ | sdB | 0.033 |
| GaiaDR3551738652971859776 0 | $27411^{+2273}_{-1862}$ | $5.61 \pm 0.17$ | $5.56^{+0.10}_{-0.09}$ | $-11.328^{+0.021}_{-0.027}$ | $0.181^{+0.015}_{-0.015}$ | $0.55 \pm 0.04$ | $0.189^{+0.022}_{-0.019}$ | $18.488^{+8.416}_{-5.637}$ | sdB | 0.000 |
| EC05411-4717 | $27470^{+1645}_{-1335}$ | $5.58 \pm 0.18$ | $5.73^{+0.14}_{-0.13}$ | $-11.526^{+0.015}_{-0.066}$ | $0.018^{+0.026}_{-0.018}$ | $0.41 \pm 0.04$ | $0.155^{+0.025}_{-0.023}$ | $12.434^{+5.660}_{-3.958}$ | sdB | 0.003 |
| GaiaDR3556103483923751257 6 | $27542^{+6818}_{-4247}$ | $5.56 \pm 0.18$ | $5.48^{+0.21}_{-0.35}$ | $-11.420^{+0.036}_{-0.255}$ | $0.065^{+0.061}_{-0.065}$ | $0.38 \pm 0.04$ | $0.205^{+0.051}_{-0.083}$ | $20.088^{+35.225}_{-13.765}$ | sdB | 0.039 |
| GaiaDR3549421923560345216 0 | $27589^{+3704}_{-2247}$ | $5.55 \pm 0.18$ | $5.61^{+0.14}_{-0.13}$ | $-11.336^{+0.043}_{-0.068}$ | 0.262 | $0.57 \pm 0.04$ | $0.177^{+0.028}_{-0.027}$ | $16.869^{+12.250}_{-6.682}$ | sdB | 0.020 |
| GaiaDR3529448167842356249 6 | $27717^{+2799}_{-2113}$ | $5.57 \pm 0.18$ | $5.62^{+0.11}_{-0.10}$ | $-11.394^{+0.024}_{-0.040}$ | $0.170^{+0.019}_{-0.017}$ | $0.50 \pm 0.04$ | $0.176^{+0.023}_{-0.020}$ | $16.792^{+9.304}_{-5.775}$ | sdB | 0.005 |
| GaiaDR3548715745037418803 2 | $27862^{+1869}_{-1553}$ | $5.58 \pm 0.18$ | $5.76^{+0.08}_{-0.08}$ | $-11.351^{+0.017}_{-0.028}$ | $0.167^{+0.015}_{-0.013}$ | $0.66 \pm 0.04$ | $0.149^{+0.014}_{-0.013}$ | $12.201^{+4.448}_{-3.189}$ | sdB | 0.005 |
| EC05177-6104 | $27878^{+1823}_{-1441}$ | $5.58 \pm 0.18$ | $5.56^{+0.10}_{-0.09}$ | $-11.330^{+0.017}_{-0.031}$ | $0.015^{+0.016}_{-0.008}$ | $0.55 \pm 0.04$ | $0.187^{+0.021}_{-0.019}$ | $19.367^{+7.391}_{-5.190}$ | sdB | 0.018 |

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|---|---|---|---|---|---|---|---|---|---|---|
| GaiaDR3551036593751683840O | $27909^{+3931}_{-2362}$ | $5.58 \pm 0.18$ | $5.95^{+0.14}_{-0.15}$ | $-11.481^{+0.048}_{-0.077}$ | 0.200 | $0.60 \pm 0.05$ | $0.121^{+0.020}_{-0.020}$ | $8.185^{+6.328}_{-3.390}$ | sdB | 0.012 |
| GaiaDR3528846360460744704O | $28027^{+2425}_{-2930}$ | $5.48 \pm 0.18$ | $5.21^{+0.14}_{-0.11}$ | $-11.298^{+0.023}_{-0.022}$ | $0.184^{+0.020}_{-0.052}$ | $0.40 \pm 0.04$ | $0.283^{+0.044}_{-0.035}$ | $43.993^{+25.267}_{-17.252}$ | sdB | 0.027 |
| GaiaDR35485756878718056448 | $28123^{+1959}_{-1481}$ | $5.52 \pm 0.18$ | $5.52^{+0.09}_{-0.08}$ | $-11.297^{+0.016}_{-0.020}$ | $0.106^{+0.016}_{-0.014}$ | $0.57 \pm 0.03$ | $0.197^{+0.021}_{-0.018}$ | $22.200^{+8.430}_{-5.798}$ | sdB | 0.012 |
| GaiaDR3528858819301873088O | $28286^{+3249}_{-3531}$ | $5.56 \pm 0.18$ | $5.58^{+0.13}_{-0.11}$ | $-11.280^{+0.047}_{-0.051}$ | $0.109^{+0.048}_{-0.058}$ | $0.63 \pm 0.03$ | $0.185^{+0.027}_{-0.024}$ | $19.393^{+13.465}_{-8.652}$ | sdB | 0.003 |
| GaiaDR34756540082618984064 | $28315^{+2078}_{-1845}$ | $5.71 \pm 0.16$ | $5.78^{+0.09}_{-0.08}$ | $-11.370^{+0.021}_{-0.026}$ | $0.045^{+0.015}_{-0.015}$ | $0.65 \pm 0.04$ | $0.145^{+0.015}_{-0.013}$ | $12.329^{+4.925}_{-3.504}$ | sdB | 0.002 |
| GaiaDR35280371920582429696 | $28343^{+4869}_{-5939}$ | $5.32 \pm 0.19$ | $5.81^{+0.37}_{-0.18}$ | $-11.454^{+0.160}_{-0.085}$ | $0.000^{+0.008}_{-0.000}$ | $0.57 \pm 0.04$ | $0.140^{+0.060}_{-0.029}$ | $11.544^{+17.816}_{-7.450}$ | sdB | 0.000 |
| GaiaDR355576826952945841408 | $28422^{+3817}_{-3245}$ | $5.57 \pm 0.18$ | $5.50^{+0.18}_{-0.14}$ | $-11.308^{+0.069}_{-0.068}$ | $0.064^{+0.034}_{-0.036}$ | $0.54 \pm 0.03$ | $0.201^{+0.041}_{-0.033}$ | $24.034^{+20.329}_{-11.092}$ | sdB | 0.024 |
| GaiaDR32894607919407035136 | $28498^{+5977}_{-3046}$ | $5.56 \pm 0.18$ | $5.75^{+0.13}_{-0.12}$ | $-11.428^{+0.035}_{-0.058}$ | $0.023^{+0.034}_{-0.022}$ | $0.54 \pm 0.04$ | $0.152^{+0.022}_{-0.021}$ | $14.458^{+16.110}_{-6.501}$ | sdB | 0.015 |
| GaiaDR34668217275627209856 | $28708^{+3684}_{-1825}$ | $5.55 \pm 0.18$ | $5.82^{+0.10}_{-0.09}$ | $-11.391^{+0.031}_{-0.035}$ | $0.003^{+0.034}_{-0.003}$ | $0.64 \pm 0.04$ | $0.140^{+0.016}_{-0.014}$ | $12.529^{+7.750}_{-4.010}$ | sdB | 0.027 |
| EC05138-3314 | $28793^{+1434}_{-1314}$ | $5.73 \pm 0.16$ | $5.46^{+0.10}_{-0.09}$ | $-11.285^{+0.025}_{-0.026}$ | 0.022 | $0.55 \pm 0.03$ | $0.210^{+0.025}_{-0.021}$ | $27.521^{+9.347}_{-6.845}$ | sdB | 0.009 |
| GaiaDR35559892790252848256 | $28810^{+2078}_{-1674}$ | $5.65 \pm 0.17$ | $5.75^{+0.11}_{-0.09}$ | $-11.467^{+0.020}_{-0.025}$ | $0.061^{+0.021}_{-0.019}$ | $0.50 \pm 0.04$ | $0.151^{+0.018}_{-0.016}$ | $14.276^{+6.002}_{-4.081}$ | sdB | 0.019 |
| GaiaDR355576338975942083072 | $28994^{+3768}_{-2302}$ | $5.53 \pm 0.18$ | $5.59^{+0.10}_{-0.09}$ | $-11.315^{+0.025}_{-0.036}$ | $0.075^{+0.026}_{-0.019}$ | $0.58 \pm 0.03$ | $0.183^{+0.021}_{-0.019}$ | $22.025^{+14.371}_{-7.733}$ | sdB | 0.019 |
| GaiaDR32922659347253847168 | $28998^{+5082}_{-2940}$ | $5.36 \pm 0.19$ | $5.58^{+0.09}_{-0.08}$ | $-11.333^{+0.033}_{-0.000}$ | $0.110^{+0.030}_{-0.020}$ | $0.58 \pm 0.04$ | $0.183^{+0.020}_{-0.016}$ | $22.397^{+20.003}_{-8.895}$ | sdB | 0.001 |
| 1RXSJ062737.8-555700 | $29000^{+8308}_{-2900}$ | $5.57 \pm 0.18$ | $5.99^{+0.13}_{-0.12}$ | $-11.572^{+0.027}_{-0.063}$ | $0.035^{+0.068}_{-0.035}$ | $0.51 \pm 0.04$ | $0.114^{+0.016}_{-0.016}$ | $9.086^{+14.271}_{-4.148}$ | sdB | 0.024 |
| GaiaDR35483075753973119872 | $29011^{+3324}_{-1775}$ | $5.64 \pm 0.17$ | $5.54^{+0.08}_{-0.07}$ | $-11.274^{+0.020}_{-0.001}$ | $0.095^{+0.021}_{-0.012}$ | $0.62 \pm 0.03$ | $0.193^{+0.018}_{-0.015}$ | $24.682^{+13.318}_{-7.077}$ | sdB | 0.010 |
| GaiaDR3527795814896286592O | $29442^{+5274}_{-3409}$ | $5.60 \pm 0.17$ | $5.34^{+0.14}_{-0.12}$ | $-11.266^{+0.047}_{-0.055}$ | $0.141^{+0.031}_{-0.023}$ | $0.50 \pm 0.03$ | $0.242^{+0.040}_{-0.035}$ | $41.056^{+40.539}_{-19.020}$ | sdB | 0.000 |
| GaiaDR3480639963639907008O | $29660^{+2337}_{-862}$ | $5.70 \pm 0.17$ | $5.68^{+0.08}_{-0.07}$ | $-11.313^{+0.012}_{-0.022}$ | $0.000^{+0.016}_{-0.000}$ | $0.65 \pm 0.03$ | $0.165^{+0.015}_{-0.013}$ | $19.844^{+7.076}_{-4.311}$ | sdB | 0.015 |
| EC04096-5058 | $29984^{+1253}_{-1276}$ | $5.80 \pm 0.15$ | $5.65^{+0.09}_{-0.08}$ | $-11.319^{+0.023}_{-0.021}$ | 0.016 | $0.63 \pm 0.03$ | $0.170^{+0.017}_{-0.015}$ | $21.068^{+6.136}_{-4.716}$ | sdB | 0.004 |
| GaiaDR32919475848770536448 | $30220^{+2871}_{-2287}$ | $5.84 \pm 0.15$ | $5.71^{+0.10}_{-0.09}$ | $-11.338^{+0.033}_{-0.034}$ | $0.017^{+0.023}_{-0.017}$ | $0.64 \pm 0.03$ | $0.158^{+0.019}_{-0.016}$ | $18.984^{+9.674}_{-6.222}$ | sdOB | 0.000 |
| GaiaDR3475671693219725696O | $30565^{+10322}_{-4162}$ | $5.88 \pm 0.14$ | $5.76^{+0.21}_{-0.17}$ | $-11.535^{+0.075}_{-0.086}$ | $0.000^{+0.054}_{-0.000}$ | $0.43 \pm 0.04$ | $0.150^{+0.036}_{-0.030}$ | $19.844^{+40.617}_{-11.389}$ | sdOB | 0.003 |
| GaiaDR3555813212853785792O | $30574^{+3726}_{-2511}$ | $5.74 \pm 0.16$ | $5.89^{+0.10}_{-0.10}$ | $-11.424^{+0.026}_{-0.046}$ | $0.067^{+0.021}_{-0.017}$ | $0.64 \pm 0.04$ | $0.129^{+0.015}_{-0.014}$ | $13.360^{+8.339}_{-4.764}$ | sdOB | 0.000 |
| EC04593-3210 | $30735^{+1790}_{-1498}$ | $5.74 \pm 0.16$ | $5.76^{+0.12}_{-0.10}$ | $-11.517^{+0.030}_{-0.025}$ | $0.001^{+0.018}_{-0.001}$ | $0.45 \pm 0.04$ | $0.150^{+0.021}_{-0.017}$ | $18.340^{+7.468}_{-5.095}$ | sdOB | 0.000 |
| GaiaDR35482554001345846272 | $30876^{+3468}_{-2433}$ | $5.60 \pm 0.17$ | $5.62^{+0.10}_{-0.09}$ | $-11.332^{+0.025}_{-0.032}$ | $0.037^{+0.020}_{-0.017}$ | $0.59 \pm 0.03$ | $0.175^{+0.020}_{-0.018}$ | $25.726^{+14.796}_{-8.739}$ | sdOB | 0.007 |
| GaiaDR35560955571319696128 | $31404^{+5669}_{-3808}$ | $5.78 \pm 0.16$ | $5.81^{+0.16}_{-0.23}$ | $-11.453^{+0.036}_{-0.151}$ | $0.073^{+0.031}_{-0.071}$ | $0.53 \pm 0.04$ | $0.141^{+0.025}_{-0.038}$ | $16.786^{+18.555}_{-9.135}$ | sdOB | 0.026 |

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|---|---|---|---|---|---|---|---|---|---|---|
| EC04108-5848 | $31484^{+1529}_{-997}$ | $5.77 \pm 0.16$ | $5.76^{+0.12}_{-0.10}$ | $-11.536^{+0.015}_{-0.025}$ | 0.020 | $0.43 \pm 0.04$ | $0.149^{+0.021}_{-0.017}$ | $20.239^{+7.370}_{-5.059}$ | sdOB | 0.008 |
| GaiaDR35480920882982326272 | $31686^{+659}_{-739}$ | $5.79 \pm 0.16$ | $5.48^{+0.11}_{-0.09}$ | $-11.376^{+0.016}_{-0.013}$ | 0.048 | $0.45 \pm 0.04$ | $0.206^{+0.027}_{-0.021}$ | $38.457^{+11.311}_{-8.150}$ | sdOB | 0.013 |
| GaiaDR35559613411219147264 | $31782^{+6970}_{-5873}$ | $5.73 \pm 0.16$ | $5.67^{+0.31}_{-0.24}$ | $-11.520^{+0.117}_{-0.137}$ | $0.037^{+0.038}_{-0.037}$ | $0.40 \pm 0.04$ | $0.166^{+0.059}_{-0.047}$ | $25.041^{+43.018}_{-16.383}$ | sdOB | 0.009 |
| GaiaDR34761055360256547072 | $32296^{+4186}_{-3031}$ | $5.83 \pm 0.15$ | $5.94^{+0.12}_{-0.10}$ | $-11.556^{+0.032}_{-0.037}$ | $0.023^{+0.027}_{-0.023}$ | $0.51 \pm 0.05$ | $0.121^{+0.017}_{-0.014}$ | $14.720^{+10.198}_{-5.720}$ | sdOB | 0.000 |
| GaiaDR35297808315274264576 | $32820^{+10028}_{-7362}$ | $5.78 \pm 0.16$ | $5.83^{+0.27}_{-0.20}$ | $-11.530^{+0.112}_{-0.101}$ | $0.129^{+0.039}_{-0.057}$ | $0.48 \pm 0.04$ | $0.138^{+0.044}_{-0.031}$ | $20.804^{+45.077}_{-14.478}$ | sdOB | 0.000 |
| GaiaDR35277478864971075456 | $32842^{+6776}_{-5025}$ | $5.79 \pm 0.15$ | $5.53^{+0.17}_{-0.15}$ | $-11.356^{+0.062}_{-0.075}$ | $0.116^{+0.033}_{-0.041}$ | $0.50 \pm 0.03$ | $0.194^{+0.039}_{-0.034}$ | $40.254^{+49.905}_{-22.102}$ | sdOB | 0.031 |
| EC05217-3914 | $32961^{+2657}_{-2048}$ | $5.80 \pm 0.15$ | $5.77^{+0.09}_{-0.07}$ | $-11.372^{+0.019}_{-0.023}$ | $0.028^{+0.010}_{-0.010}$ | $0.64 \pm 0.04$ | $0.148^{+0.015}_{-0.013}$ | $23.530^{+9.807}_{-6.595}$ | sdOB | 0.003 |
| GaiaDR32921084812241684608 | $32997^{+4062}_{-3141}$ | $5.79 \pm 0.16$ | $5.07^{+0.10}_{-0.08}$ | $-11.099^{+0.032}_{-0.001}$ | $0.060^{+0.016}_{-0.020}$ | $0.55 \pm 0.03$ | $0.333^{+0.038}_{-0.030}$ | $121.041^{+77.116}_{-44.905}$ | sdOB | 0.014 |
| GaiaDR32911066474601725312 | $33013^{+3789}_{-2840}$ | $5.80 \pm 0.15$ | $6.02^{+0.09}_{-0.09}$ | $-11.421^{+0.029}_{-0.044}$ | $0.023^{+0.018}_{-0.023}$ | $0.75 \pm 0.04$ | $0.111^{+0.012}_{-0.012}$ | $13.275^{+7.860}_{-4.725}$ | sdOB | 0.015 |
| GaiaDR35566667362425066624 | $33218^{+2988}_{-3229}$ | $5.80 \pm 0.15$ | $4.97^{+0.18}_{-0.14}$ | $-11.262^{+0.044}_{-0.036}$ | $0.047^{+0.016}_{-0.022}$ | $0.33 \pm 0.03$ | $0.373^{+0.078}_{-0.058}$ | $151.536^{+102.800}_{-61.938}$ | sdOB | 0.000 |
| GaiaDR32923672066178588800 | $35000^{+1907}_{-1263}$ | $5.91 \pm 0.14$ | $5.54^{+0.10}_{-0.09}$ | $-11.344^{+0.014}_{-0.023}$ | 0.117 | $0.52 \pm 0.04$ | $0.194^{+0.022}_{-0.019}$ | $51.941^{+17.446}_{-12.277}$ | sdOB | 0.016 |
| GaiaDR35505495139662480384 | $35156^{+5302}_{-4327}$ | $5.89 \pm 0.14$ | $5.27^{+0.16}_{-0.14}$ | $-11.320^{+0.039}_{-0.062}$ | $0.072^{+0.013}_{-0.036}$ | $0.40 \pm 0.03$ | $0.263^{+0.049}_{-0.042}$ | $96.394^{+86.999}_{-45.926}$ | sdOB | 0.021 |
| GaiaDR35280636009529724544 | $36115^{+4933}_{-4458}$ | $5.39 \pm 0.15$ | $5.95^{+0.10}_{-0.09}$ | $-11.367^{+0.040}_{-0.039}$ | $0.122^{+0.010}_{-0.022}$ | $0.79 \pm 0.04$ | $0.120^{+0.014}_{-0.013}$ | $22.345^{+16.519}_{-9.808}$ | sdOB | 0.026 |
| GaiaDR32911633994400906112 | $36221^{+6845}_{-2781}$ | $5.59 \pm 0.15$ | $5.83^{+0.11}_{-0.12}$ | $-11.396^{+0.032}_{-0.060}$ | 0.034 | $0.63 \pm 0.03$ | $0.139^{+0.018}_{-0.019}$ | $31.682^{+29.713}_{-12.221}$ | sdOB | 0.023 |
| GaiaDR34675977078940730240 | $37998^{+4976}_{-4377}$ | $5.39 \pm 0.17$ | $5.85^{+0.14}_{-0.11}$ | $-11.444^{+0.054}_{-0.044}$ | $0.023^{+0.018}_{-0.020}$ | $0.59 \pm 0.03$ | $0.136^{+0.021}_{-0.017}$ | $34.960^{+26.317}_{-15.212}$ | sdOB | 0.003 |
| GaiaDR35269179648124709632 | $38431^{+4792}_{-4428}$ | $5.37 \pm 0.15$ | $5.73^{+0.15}_{-0.12}$ | $-11.552^{+0.046}_{-0.031}$ | $0.090^{+0.017}_{-0.018}$ | $0.41 \pm 0.03$ | $0.155^{+0.027}_{-0.021}$ | $47.852^{+36.088}_{-20.986}$ | sdOB | 0.000 |
| GaiaDR32909453662841894016 | $39014^{+4878}_{-3034}$ | $5.37 \pm 0.15$ | $6.00^{+0.10}_{-0.09}$ | $-11.513^{+0.026}_{-0.029}$ | $0.032^{+0.005}_{-0.005}$ | $0.60 \pm 0.04$ | $0.113^{+0.013}_{-0.011}$ | $27.681^{+17.269}_{-9.446}$ | sdOB | 0.011 |
| GaiaDR35279268354503792256 | $39546^{+4913}_{-4004}$ | $5.37 \pm 0.15$ | $6.00^{+0.10}_{-0.09}$ | $-11.516^{+0.034}_{-0.028}$ | $0.108^{+0.006}_{-0.017}$ | $0.60 \pm 0.04$ | $0.114^{+0.014}_{-0.011}$ | $28.978^{+19.074}_{-11.274}$ | sdOB | 0.000 |
| GaiaDR35301404615953702656 | $39998^{+15001}_{-21046}$ | $5.37 \pm 0.15$ | $6.17^{+0.51}_{-0.22}$ | $-11.561^{+0.208}_{-0.112}$ | $0.135^{+0.064}_{-0.135}$ | $0.67 \pm 0.04$ | $0.094^{+0.055}_{-0.023}$ | $19.706^{+78.066}_{-18.627}$ | sdOB | 0.261 |
| EC04507-3735 | $40000^{+3305}_{-2017}$ | $5.37 \pm 0.15$ | $5.92^{+0.11}_{-0.09}$ | $-11.562^{+0.018}_{-0.024}$ | 0.014 | $0.49 \pm 0.04$ | $0.124^{+0.015}_{-0.013}$ | $36.649^{+16.252}_{-10.286}$ | sdOB | 0.000 |
| GaiaDR35586527634804183168 | $40000^{+10875}_{-2860}$ | $5.38 \pm 0.15$ | $5.59^{+0.09}_{-0.07}$ | $-11.316^{+0.023}_{-0.001}$ | $0.229^{+0.011}_{-0.003}$ | $0.60 \pm 0.03$ | $0.183^{+0.018}_{-0.015}$ | $84.897^{+121.740}_{-29.852}$ | sdOB | 0.000 |
| GaiaDR35536189759099210496 | $40353^{+14646}_{-4325}$ | $5.38 \pm 0.15$ | $5.99^{+0.12}_{-0.14}$ | $-11.447^{+0.037}_{-0.076}$ | $0.364^{+0.017}_{-0.007}$ | $0.68 \pm 0.04$ | $0.115^{+0.016}_{-0.018}$ | $34.294^{+73.842}_{-16.644}$ | sdO | 0.003 |
| GaiaDR35476889454880643840 | $41330^{+11168}_{-4073}$ | $5.39 \pm 0.15$ | $5.45^{+0.15}_{-0.13}$ | $-11.415^{+0.030}_{-0.052}$ | $0.070^{+0.012}_{-0.004}$ | $0.40 \pm 0.03$ | $0.213^{+0.037}_{-0.031}$ | $132.458^{+193.927}_{-61.457}$ | sdO | 0.000 |
| GaiaDR35477301943538453632 | $41889^{+13111}_{-5318}$ | $5.37 \pm 0.15$ | $5.95^{+0.14}_{-0.14}$ | $-11.549^{+0.040}_{-0.075}$ | $0.027^{+0.016}_{-0.008}$ | $0.51 \pm 0.04$ | $0.120^{+0.020}_{-0.020}$ | $43.282^{+78.798}_{-22.530}$ | sdO | 0.000 |

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|---|---|---|---|---|---|---|---|---|---|---|
| EC04517-3706 | $41935^{+3388}_{-2963}$ | $5.41 \pm 0.15$ | $6.04^{+0.09}_{-0.07}$ | $-11.505^{+0.022}_{-0.021}$ | 0.012 | $0.64 \pm 0.04$ | $0.108^{+0.011}_{-0.009}$ | $33.059^{+14.174}_{-9.814}$ | sdO | 0.012 |
| GaiaDR35302852088653024768 | $42621^{+12379}_{-9236}$ | $5.39 \pm 0.15$ | $5.51^{+0.25}_{-0.19}$ | $-11.427^{+0.094}_{-0.095}$ | $0.127^{+0.042}_{-0.041}$ | $0.42 \pm 0.03$ | $0.199^{+0.056}_{-0.044}$ | $120.534^{+241.052}_{-81.890}$ | sdO | 0.026 |
| GaiaDR34794394824848838144 | $44999^{+10001}_{-4762}$ | $5.50 \pm 0.15$ | $5.65^{+0.13}_{-0.12}$ | $-11.399^{+0.031}_{-0.057}$ | 0.059 | $0.52 \pm 0.04$ | $0.169^{+0.024}_{-0.023}$ | $112.188^{+132.597}_{-50.518}$ | sdO | 0.010 |
| GALEXJ04424-3206 | $45092^{+2826}_{-2320}$ | $5.50 \pm 0.15$ | $5.65^{+0.09}_{-0.09}$ | $-11.335^{+0.013}_{-0.039}$ | 0.020 | $0.59 \pm 0.03$ | $0.170^{+0.018}_{-0.017}$ | $108.541^{+39.615}_{-28.774}$ | sdO | 0.014 |
| GaiaDR35608848339323479424 | $45615^{+9384}_{-11597}$ | $5.49 \pm 0.15$ | $5.59^{+0.24}_{-0.16}$ | $-11.426^{+0.100}_{-0.068}$ | $0.061^{+0.025}_{-0.024}$ | $0.46 \pm 0.03$ | $0.182^{+0.050}_{-0.034}$ | $126.227^{+189.605}_{-88.486}$ | sdO | 0.000 |
| EC05242-2900 | $46413^{+7846}_{-4102}$ | $5.57 \pm 0.15$ | $5.64^{+0.14}_{-0.12}$ | $-11.513^{+0.025}_{-0.042}$ | 0.033 | $0.39 \pm 0.03$ | $0.172^{+0.029}_{-0.023}$ | $131.786^{+117.245}_{-54.374}$ | sdO | 0.012 |
| GaiaDR35485451897384178816 | $48464^{+5020}_{-3950}$ | $5.61 \pm 0.15$ | $5.79^{+0.12}_{-0.10}$ | $-11.546^{+0.021}_{-0.027}$ | 0.167 | $0.44 \pm 0.04$ | $0.144^{+0.020}_{-0.017}$ | $105.375^{+61.187}_{-37.436}$ | sdO | 0.027 |
| EC04402-4900 | $52784^{+2216}_{-13400}$ | $5.75 \pm 0.15$ | $5.85^{+0.17}_{-0.10}$ | $-11.492^{+0.088}_{-0.014}$ | $0.001^{+0.015}_{-0.001}$ | $0.56 \pm 0.04$ | $0.134^{+0.027}_{-0.015}$ | $110.741^{+65.006}_{-71.325}$ | sdO | 0.000 |
| EC05358-4616 | $52814^{+2186}_{-7126}$ | $5.77 \pm 0.15$ | $5.64^{+0.09}_{-0.08}$ | $-11.375^{+0.003}_{-0.013}$ | 0.039 | $0.54 \pm 0.03$ | $0.171^{+0.018}_{-0.015}$ | $190.820^{+70.087}_{-78.845}$ | sdO | 0.021 |
| GaiaDR35492645009830447232 | $53400^{+1599}_{-17332}$ | $5.75 \pm 0.15$ | $6.06^{+0.23}_{-0.16}$ | $-11.603^{+0.099}_{-0.075}$ | $0.193^{+0.021}_{-0.068}$ | $0.53 \pm 0.04$ | $0.106^{+0.028}_{-0.020}$ | $62.434^{+55.727}_{-46.179}$ | sdO | 0.023 |
| EC05415-5018 | $55616^{+11907}_{-2896}$ | $5.81 \pm 0.15$ | $5.37^{+0.10}_{-0.10}$ | $-11.229^{+0.013}_{-0.046}$ | 0.044 | $0.54 \pm 0.03$ | $0.235^{+0.028}_{-0.026}$ | $525.903^{+534.015}_{-175.426}$ | sdO | 0.000 |
| GALEXJ04155-5421 | $63000^{+12000}_{-11607}$ | $5.97 \pm 0.15$ | $5.74^{+0.14}_{-0.12}$ | $-11.444^{+0.053}_{-0.047}$ | 0.011 | $0.52 \pm 0.04$ | $0.154^{+0.026}_{-0.021}$ | $335.427^{+383.059}_{-194.402}$ | sdO | 0.024 |
| GaiaDR35570041179495992704 | $69622^{+5377}_{-18622}$ | $6.11 \pm 0.15$ | $7.02^{+0.14}_{-0.10}$ | $-11.934^{+0.064}_{-0.035}$ | $0.033^{+0.023}_{-0.032}$ | $0.74 \pm 0.06$ | $0.035^{+0.006}_{-0.004}$ | $23.816^{+15.618}_{-16.294}$ | sdO | 0.000 |
| GaiaDR35589462300057217664 | $74999^{+24000}_{-3999}$ | $6.27 \pm 0.15$ | $5.75^{+0.11}_{-0.11}$ | $-11.450^{+0.013}_{-0.058}$ | $0.233^{+0.020}_{-0.007}$ | $0.50 \pm 0.03$ | $0.152^{+0.020}_{-0.019}$ | $756.242^{+1266.081}_{-283.142}$ | sdO | 0.007 |
| GaiaDR35287775688285595904 | $75257^{+21441}_{-4256}$ | $6.27 \pm 0.15$ | $5.91^{+0.13}_{-0.12}$ | $-11.573^{+0.013}_{-0.063}$ | 0.168 | $0.46 \pm 0.04$ | $0.126^{+0.018}_{-0.017}$ | $523.042^{+752.352}_{-202.393}$ | sdO | 0.000 |
| EC04408-4558 | $80459^{+18540}_{-9459}$ | $6.34 \pm 0.15$ | $6.32^{+0.12}_{-0.11}$ | $-11.670^{+0.034}_{-0.057}$ | 0.006 | $0.60 \pm 0.04$ | $0.078^{+0.011}_{-0.010}$ | $241.518^{+301.522}_{-112.922}$ | sdO | 0.039 |
| GaiaDR35510452287837529600 | $90923^{+8076}_{-19923}$ | $6.51 \pm 0.15$ | $4.96^{+0.24}_{-0.16}$ | $-11.392^{+0.051}_{-0.026}$ | $0.179^{+0.011}_{-0.017}$ | $0.24 \pm 0.02$ | $0.377^{+0.106}_{-0.070}$ | $7796.239^{+7588.266}_{-4767.531}$ | sdO | 0.000 |
| GaiaDR35482630348684724736 | $114895^{+104}_{-39895}$ | $7.00 \pm 0.15$ | $7.39^{+0.21}_{-0.08}$ | $-12.109^{+0.114}_{-0.006}$ | 0.049 | $0.80 \pm 0.07$ | $0.023^{+0.006}_{-0.002}$ | $67.389^{+35.836}_{-51.647}$ | WD | 0.004 |
| EC04156-3320 | $115000^{+0}_{-39141}$ | $7.00 \pm 0.15$ | $7.31^{+0.19}_{-0.07}$ | $-11.958^{+0.096}_{-0.016}$ | $0.015^{+0.011}_{-0.015}$ | $1.00 \pm 0.06$ | $0.025^{+0.005}_{-0.002}$ | $82.855^{+39.639}_{-62.984}$ | WD | 0.012 |
| GaiaDR35590669009767935360 | $115000^{+0}_{-40000}$ | $6.60 \pm 0.15$ | $5.88^{+0.28}_{-0.22}$ | $-11.516^{+0.115}_{-0.119}$ | $0.257^{+0.042}_{-0.144}$ | $0.52 \pm 0.03$ | $0.130^{+0.043}_{-0.033}$ | $1761.150^{+2019.735}_{-1335.067}$ | sdO | 0.121 |
| Parallax error $\leq 5\,\%$ | | | | | | | | | | |
| TYC9193-2113-1 | $10197^{+360}_{-150}$ | $3.54 \pm 0.22$ | $4.15^{+0.04}_{-0.04}$ | $-10.167^{+0.007}_{-0.016}$ | $0.000^{+0.014}_{-0.000}$ | $1.57 \pm 0.02$ | $0.957^{+0.039}_{-0.041}$ | $9.094^{+1.381}_{-1.018}$ | BHB | 0.052 |
| GaiaDR35496812536854546432 | $10484^{+548}_{-392}$ | $3.54 \pm 0.22$ | $5.46^{+0.05}_{-0.12}$ | $-10.853^{+0.009}_{-0.074}$ | $0.076^{+0.026}_{-0.023}$ | $1.44 \pm 0.02$ | $0.211^{+0.013}_{-0.029}$ | $0.475^{+0.132}_{-0.125}$ | BHB | 0.056 |

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|---|---|---|---|---|---|---|---|---|---|---|
| TYC6499-463-1 | $10508^{+500}_{-301}$ | $3.54 \pm 0.22$ | $3.92^{+0.14}_{-0.13}$ | $-10.365^{+0.058}_{-0.066}$ | $0.000^{+0.002}_{-0.000}$ | $0.77 \pm 0.02$ | $1.243^{+0.204}_{-0.186}$ | $17.366^{+7.152}_{-5.160}$ | BHB | 0.021 |
| TYC8076-1235-1 | $10594^{+227}_{-76}$ | $3.68 \pm 0.23$ | $3.80^{+0.07}_{-0.07}$ | $-10.306^{+0.004}_{-0.039}$ | $0.000^{+0.009}_{-0.000}$ | $0.74 \pm 0.02$ | $1.436^{+0.120}_{-0.122}$ | $23.866^{+4.506}_{-4.036}$ | BHB | 0.016 |
| GaiaDR3476123681833060480 0 | $11169^{+148}_{-131}$ | $3.65 \pm 0.23$ | $4.19^{+0.13}_{-0.10}$ | $-10.779^{+0.016}_{-0.012}$ | $0.000^{+0.014}_{-0.000}$ | $0.41 \pm 0.02$ | $0.911^{+0.132}_{-0.103}$ | $11.660^{+3.686}_{-2.544}$ | BHB | 0.035 |
| LB3348 | $11340^{+300}_{-230}$ | $3.76 \pm 0.23$ | $3.99^{+0.17}_{-0.12}$ | $-10.555^{+0.068}_{-0.050}$ | $0.007^{+0.011}_{-0.007}$ | $0.55 \pm 0.02$ | $1.143^{+0.217}_{-0.163}$ | $19.661^{+8.504}_{-5.431}$ | BHB | 0.000 |
| EC04528-3249 | $11623^{+1172}_{-554}$ | $3.72 \pm 0.23$ | $4.26^{+0.09}_{-0.10}$ | $-10.510^{+0.029}_{-0.052}$ | 0.014 | $0.80 \pm 0.02$ | $0.846^{+0.091}_{-0.098}$ | $12.185^{+5.880}_{-3.524}$ | BHB | 0.039 |
| GaiaDR3288419736535570188 8 | $12000^{+280}_{-292}$ | $3.90 \pm 0.23$ | $3.98^{+0.12}_{-0.10}$ | $-10.641^{+0.007}_{-0.036}$ | $0.055^{+0.008}_{-0.008}$ | $0.43 \pm 0.02$ | $1.155^{+0.163}_{-0.135}$ | $24.883^{+8.043}_{-5.824}$ | BHB | 0.010 |
| GaiaDR3288844251360613625 60 | $12078^{+397}_{-207}$ | $4.00 \pm 0.23$ | $4.02^{+0.08}_{-0.07}$ | $-10.463^{+0.011}_{-0.030}$ | 0.040 | $0.68 \pm 0.02$ | $1.113^{+0.101}_{-0.094}$ | $24.252^{+5.513}_{-4.391}$ | BHB | 0.000 |
| TYC7074-628-1 | $12751^{+354}_{-327}$ | $4.06 \pm 0.23$ | $3.97^{+0.07}_{-0.06}$ | $-10.408^{+0.008}_{-0.022}$ | $0.059^{+0.008}_{-0.008}$ | $0.73 \pm 0.02$ | $1.168^{+0.094}_{-0.086}$ | $32.579^{+6.749}_{-5.544}$ | BHB | 0.010 |
| GaiaDR3467515155186684006 4 | $12779^{+282}_{-299}$ | $3.97 \pm 0.23$ | $4.05^{+0.10}_{-0.08}$ | $-10.649^{+0.006}_{-0.002}$ | $0.039^{+0.007}_{-0.007}$ | $0.47 \pm 0.01$ | $1.071^{+0.129}_{-0.104}$ | $27.515^{+7.612}_{-5.549}$ | BHB | 0.005 |
| GaiaDR3289273531366406809 6 | $12999^{+3482}_{-1826}$ | $3.48 \pm 0.22$ | $4.94^{+0.12}_{-0.13}$ | $-10.876^{+0.040}_{-0.073}$ | $0.146^{+0.058}_{-0.040}$ | $0.76 \pm 0.02$ | $0.382^{+0.051}_{-0.059}$ | $3.876^{+5.933}_{-2.027}$ | BHB | 0.019 |
| TYC8107-1947-1 | $15303^{+679}_{-533}$ | $4.33 \pm 0.23$ | $4.32^{+0.06}_{-0.05}$ | $-10.549^{+0.008}_{-0.011}$ | $0.053^{+0.011}_{-0.009}$ | $0.79 \pm 0.02$ | $0.789^{+0.056}_{-0.050}$ | $31.114^{+7.386}_{-5.673}$ | BHB | 0.000 |
| GaiaDR3527144828421065292 8 | $15375^{+590}_{-479}$ | $4.43 \pm 0.23$ | $4.46^{+0.10}_{-0.08}$ | $-10.819^{+0.007}_{-0.015}$ | $0.122^{+0.009}_{-0.012}$ | $0.50 \pm 0.02$ | $0.672^{+0.077}_{-0.064}$ | $22.986^{+6.778}_{-4.952}$ | BHB | 0.000 |
| EC04300-5341 | $15390^{+301}_{-196}$ | $4.39 \pm 0.23$ | $4.39^{+0.08}_{-0.07}$ | $-10.719^{+0.004}_{-0.009}$ | $0.001^{+0.006}_{-0.001}$ | $0.58 \pm 0.02$ | $0.727^{+0.070}_{-0.059}$ | $27.004^{+5.795}_{-4.458}$ | BHB | 0.017 |
| TYC8130-1930-1 | $15615^{+627}_{-582}$ | $4.34 \pm 0.23$ | $4.30^{+0.05}_{-0.04}$ | $-10.456^{+0.009}_{-0.004}$ | $0.071^{+0.010}_{-0.010}$ | $0.97 \pm 0.02$ | $0.808^{+0.046}_{-0.041}$ | $35.070^{+7.351}_{-6.006}$ | BHB | 0.000 |
| GaiaDR3290244695627458188 8 | $16148^{+1424}_{-647}$ | $4.69 \pm 0.22$ | $4.17^{+0.13}_{-0.11}$ | $-10.730^{+0.016}_{-0.052}$ | $0.046^{+0.016}_{-0.018}$ | $0.43 \pm 0.02$ | $0.932^{+0.139}_{-0.122}$ | $55.956^{+27.282}_{-16.943}$ | BHB | 0.000 |
| GaiaDR3290544611475737984 0 | $17433^{+735}_{-647}$ | $4.63 \pm 0.22$ | $3.28^{+0.05}_{-0.05}$ | $-9.913^{+0.008}_{-0.018}$ | $0.017^{+0.010}_{-0.010}$ | $1.03 \pm 0.03$ | $2.613^{+0.152}_{-0.146}$ | $569.727^{+124.123}_{-100.531}$ | BHB | 0.003 |
| GALEXJ03582-4841 | $18670^{+186}_{-180}$ | $4.98 \pm 0.21$ | $4.89^{+0.06}_{-0.05}$ | $-10.810^{+0.003}_{-0.010}$ | 0.006 | $0.84 \pm 0.02$ | $0.407^{+0.027}_{-0.024}$ | $18.112^{+2.558}_{-2.151}$ | BHB | 0.005 |
| EC04506-3922 | $22024^{+1259}_{-1203}$ | $5.09 \pm 0.21$ | $4.75^{+0.07}_{-0.06}$ | $-10.852^{+0.012}_{-0.001}$ | $0.014^{+0.016}_{-0.014}$ | $0.66 \pm 0.02$ | $0.478^{+0.040}_{-0.035}$ | $48.683^{+15.264}_{-11.633}$ | sdB | 0.025 |
| GaiaDR3549331873128127782 4 | $22229^{+1298}_{-1222}$ | $5.18 \pm 0.20$ | $4.32^{+0.11}_{-0.09}$ | $-10.808^{+0.013}_{-0.014}$ | $0.147^{+0.014}_{-0.014}$ | $0.44 \pm 0.02$ | $0.783^{+0.104}_{-0.083}$ | $135.636^{+53.618}_{-37.422}$ | sdB | 0.000 |
| GaiaDR3560386937271376896 0 | $22421^{+3005}_{-2180}$ | $5.34 \pm 0.19$ | $5.82^{+0.08}_{-0.07}$ | $-11.256^{+0.024}_{-0.033}$ | $0.022^{+0.029}_{-0.022}$ | $0.88 \pm 0.03$ | $0.139^{+0.012}_{-0.012}$ | $4.484^{+3.010}_{-1.664}$ | sdB | 0.000 |
| GaiaDR3288484642081379315 2 | $22555^{+370}_{-351}$ | $5.22 \pm 0.20$ | $5.35^{+0.07}_{-0.06}$ | $-11.077^{+0.006}_{-0.021}$ | 0.091 | $0.76 \pm 0.03$ | $0.240^{+0.018}_{-0.017}$ | $13.486^{+2.348}_{-1.978}$ | sdB | 0.013 |
| GaiaDR3555206471413748787 2 | $22863^{+1766}_{-1678}$ | $5.19 \pm 0.20$ | $5.87^{+0.08}_{-0.09}$ | $-11.322^{+0.017}_{-0.048}$ | $0.028^{+0.018}_{-0.019}$ | $0.78 \pm 0.03$ | $0.132^{+0.012}_{-0.014}$ | $4.265^{+1.811}_{-1.327}$ | sdB | 0.000 |
| GaiaDR3467503734009626099 2 | $23225^{+193}_{-188}$ | $5.33 \pm 0.19$ | $5.03^{+0.07}_{-0.06}$ | $-10.927^{+0.003}_{-0.020}$ | 0.042 | $0.74 \pm 0.02$ | $0.349^{+0.027}_{-0.024}$ | $31.876^{+5.232}_{-4.399}$ | sdB | 0.000 |
| GaiaDR3555818770785720787 20 | $23296^{+2224}_{-2363}$ | $5.07 \pm 0.21$ | $5.78^{+0.18}_{-0.13}$ | $-11.306^{+0.080}_{-0.060}$ | $0.000^{+0.049}_{-0.000}$ | $0.75 \pm 0.03$ | $0.147^{+0.031}_{-0.022}$ | $5.695^{+3.921}_{-2.362}$ | sdB | 0.041 |

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|---|---|---|---|---|---|---|---|---|---|---|
| GaiaDR34757990991286498432 | $23567^{+972}_{-1362}$ | $5.26 \pm 0.20$ | $5.60^{+0.05}_{-0.05}$ | $-10.976^{+0.014}_{-0.018}$ | $0.014^{+0.012}_{-0.014}$ | $1.30 \pm 0.02$ | $0.181^{+0.010}_{-0.010}$ | $8.937^{+2.050}_{-1.967}$ | sdB | 0.008 |
| GaiaDR35510369721385814272 | $23659^{+2276}_{-936}$ | $5.29 \pm 0.20$ | $5.41^{+0.09}_{-0.10}$ | $-11.151^{+0.018}_{-0.052}$ | 0.195 | $0.69 \pm 0.03$ | $0.223^{+0.023}_{-0.025}$ | $14.639^{+6.558}_{-3.962}$ | sdB | 0.006 |
| GaiaDR32911497105202950400 | $23704^{+16647}_{-1115}$ | $5.32 \pm 0.20$ | $5.45^{+0.13}_{-0.36}$ | $-11.159^{+0.018}_{-0.262}$ | 0.037 | $0.67 \pm 0.03$ | $0.214^{+0.032}_{-0.090}$ | $15.077^{+75.005}_{-9.120}$ | sdB | 0.033 |
| HE0539-4246 | $24276^{+677}_{-975}$ | $5.30 \pm 0.20$ | $5.69^{+0.05}_{-0.04}$ | $-11.096^{+0.011}_{-0.013}$ | $0.034^{+0.008}_{-0.010}$ | $1.09 \pm 0.03$ | $0.162^{+0.009}_{-0.008}$ | $8.139^{+1.453}_{-1.368}$ | sdB | 0.005 |
| GALEXJ05290-5633 | $24319^{+1213}_{-1097}$ | $5.35 \pm 0.19$ | $5.51^{+0.08}_{-0.07}$ | $-11.183^{+0.018}_{-0.029}$ | $0.000^{+0.010}_{-0.000}$ | $0.73 \pm 0.03$ | $0.199^{+0.018}_{-0.017}$ | $12.465^{+3.677}_{-2.841}$ | sdB | 0.120 |
| GaiaDR32885564848583681152 | $24642^{+1411}_{-1587}$ | $5.37 \pm 0.19$ | $5.29^{+0.06}_{-0.06}$ | $-11.005^{+0.017}_{-0.016}$ | $0.017^{+0.012}_{-0.016}$ | $0.85 \pm 0.03$ | $0.257^{+0.019}_{-0.017}$ | $21.777^{+6.756}_{-5.548}$ | sdB | 0.000 |
| GaiaDR35560578404472948608 | $24975^{+1772}_{-1817}$ | $5.40 \pm 0.19$ | $5.65^{+0.06}_{-0.05}$ | $-11.077^{+0.029}_{-0.009}$ | $0.069^{+0.018}_{-0.020}$ | $1.10 \pm 0.03$ | $0.171^{+0.012}_{-0.010}$ | $10.267^{+3.688}_{-2.848}$ | sdB | 0.017 |
| GaiaDR35572926710324060928 | $24990^{+1118}_{-1227}$ | $5.36 \pm 0.19$ | $5.37^{+0.06}_{-0.06}$ | $-11.043^{+0.013}_{-0.018}$ | $0.046^{+0.010}_{-0.012}$ | $0.85 \pm 0.02$ | $0.235^{+0.017}_{-0.016}$ | $19.368^{+4.969}_{-4.134}$ | sdB | 0.000 |
| GaiaDR35282972506111527808 | $25000^{+1119}_{-1042}$ | $5.38 \pm 0.19$ | $4.66^{+0.07}_{-0.06}$ | $-10.782^{+0.011}_{-0.013}$ | $0.065^{+0.010}_{-0.010}$ | $0.69 \pm 0.02$ | $0.529^{+0.044}_{-0.038}$ | $98.716^{+26.076}_{-20.330}$ | sdB | 0.000 |
| GaiaDR32921905494592383104 | $25131^{+1251}_{-1223}$ | $5.48 \pm 0.18$ | $5.45^{+0.05}_{-0.05}$ | $-10.985^{+0.013}_{-0.023}$ | $0.014^{+0.011}_{-0.012}$ | $1.07 \pm 0.03$ | $0.213^{+0.013}_{-0.013}$ | $16.210^{+4.209}_{-3.429}$ | sdB | 0.007 |
| GaiaDR35558344128123610240 | $25157^{+2607}_{-2406}$ | $5.45 \pm 0.19$ | $5.45^{+0.09}_{-0.08}$ | $-11.217^{+0.024}_{-0.026}$ | $0.060^{+0.027}_{-0.039}$ | $0.63 \pm 0.03$ | $0.213^{+0.023}_{-0.020}$ | $16.492^{+9.076}_{-5.989}$ | sdB | 0.031 |
| GaiaDR35302500073132727680 | $25221^{+29778}_{-9760}$ | $5.41 \pm 0.19$ | $5.58^{+0.34}_{-0.40}$ | $-11.277^{+0.130}_{-0.280}$ | $0.089^{+0.104}_{-0.089}$ | $0.62 \pm 0.03$ | $0.184^{+0.073}_{-0.086}$ | $13.215^{+240.763}_{-12.188}$ | sdB | 0.040 |
| GALEXJ06564-5324 | $25222^{+1513}_{-1428}$ | $5.39 \pm 0.19$ | $5.67^{+0.05}_{-0.06}$ | $-10.952^{+0.016}_{-0.029}$ | $0.056^{+0.012}_{-0.014}$ | $1.49 \pm 0.02$ | $0.165^{+0.009}_{-0.011}$ | $9.873^{+2.942}_{-2.325}$ | sdB | 0.007 |
| EC04256-5912 | $25249^{+928}_{-627}$ | $5.38 \pm 0.19$ | $5.44^{+0.05}_{-0.05}$ | $-11.035^{+0.008}_{-0.018}$ | $0.004^{+0.008}_{-0.004}$ | $0.93 \pm 0.03$ | $0.217^{+0.014}_{-0.013}$ | $17.487^{+3.434}_{-2.713}$ | sdB | 0.000 |
| HE0500-3518 | $25485^{+4886}_{-709}$ | $5.40 \pm 0.19$ | $5.56^{+0.09}_{-0.16}$ | $-11.180^{+0.011}_{-0.101}$ | 0.012 | $0.75 \pm 0.03$ | $0.188^{+0.020}_{-0.034}$ | $14.641^{+12.042}_{-4.922}$ | sdB | 0.019 |
| GaiaDR35503674451484986880 | $25590^{+1215}_{-1195}$ | $5.42 \pm 0.19$ | $5.50^{+0.05}_{-0.04}$ | $-11.019^{+0.013}_{-0.002}$ | $0.102^{+0.010}_{-0.011}$ | $1.06 \pm 0.02$ | $0.202^{+0.011}_{-0.010}$ | $15.761^{+3.726}_{-3.063}$ | sdB | 0.000 |
| HE0405-3859 | $25855^{+949}_{-709}$ | $5.49 \pm 0.18$ | $5.37^{+0.06}_{-0.05}$ | $-11.055^{+0.009}_{-0.011}$ | $0.004^{+0.008}_{-0.004}$ | $0.83 \pm 0.03$ | $0.234^{+0.016}_{-0.014}$ | $22.235^{+4.569}_{-3.590}$ | sdB | 0.006 |
| GaiaDR35584309675031744512 | $26062^{+2267}_{-1955}$ | $5.46 \pm 0.19$ | $5.48^{+0.08}_{-0.06}$ | $-11.192^{+0.025}_{-0.004}$ | $0.072^{+0.016}_{-0.022}$ | $0.70 \pm 0.03$ | $0.207^{+0.018}_{-0.015}$ | $18.002^{+7.921}_{-5.394}$ | sdB | 0.004 |
| GaiaDR35505270461333288960 | $26071^{+3991}_{-3000}$ | $5.28 \pm 0.20$ | $6.01^{+0.07}_{-0.05}$ | $-11.295^{+0.031}_{-0.006}$ | $0.128^{+0.036}_{-0.037}$ | $1.02 \pm 0.03$ | $0.112^{+0.009}_{-0.007}$ | $5.386^{+4.164}_{-2.185}$ | sdB | 0.050 |
| GALEXJ06351-6502 | $26442^{+1951}_{-1836}$ | $5.46 \pm 0.18$ | $5.42^{+0.07}_{-0.07}$ | $-11.004^{+0.021}_{-0.033}$ | $0.029^{+0.014}_{-0.016}$ | $0.99 \pm 0.02$ | $0.220^{+0.017}_{-0.018}$ | $21.238^{+8.113}_{-6.015}$ | sdB | 0.017 |
| HE0505-3833 | $26459^{+2745}_{-1112}$ | $5.45 \pm 0.19$ | $5.64^{+0.07}_{-0.10}$ | $-11.013^{+0.021}_{-0.059}$ | 0.025 | $1.23 \pm 0.03$ | $0.173^{+0.014}_{-0.020}$ | $13.490^{+6.264}_{-3.628}$ | sdB | 0.000 |
| GaiaDR35552604814865254400 | $26505^{+3496}_{-1872}$ | $5.52 \pm 0.18$ | $5.41^{+0.12}_{-0.13}$ | $-11.207^{+0.036}_{-0.067}$ | 0.096 | $0.61 \pm 0.02$ | $0.224^{+0.032}_{-0.033}$ | $23.145^{+15.716}_{-8.565}$ | sdB | 0.042 |
| GaiaDR32893758409235290752 | $26640^{+2016}_{-2083}$ | $5.51 \pm 0.18$ | $5.48^{+0.09}_{-0.07}$ | $-11.209^{+0.023}_{-0.022}$ | $0.076^{+0.016}_{-0.020}$ | $0.67 \pm 0.03$ | $0.206^{+0.020}_{-0.018}$ | $19.156^{+8.005}_{-5.916}$ | sdB | 0.010 |
| GALEXJ05207-6129 | $26704^{+998}_{-963}$ | $5.47 \pm 0.18$ | $5.44^{+0.06}_{-0.06}$ | $-11.095^{+0.011}_{-0.018}$ | $0.018^{+0.008}_{-0.009}$ | $0.82 \pm 0.03$ | $0.217^{+0.016}_{-0.014}$ | $21.609^{+4.855}_{-3.961}$ | sdB | 0.015 |

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|---|---|---|---|---|---|---|---|---|---|---|
| GaiaDR32922129863681744896 | $26760^{+1824}_{-1603}$ | $5.50 \pm 0.18$ | $5.83^{+0.05}_{-0.05}$ | $-11.163^{+0.019}_{-0.015}$ | $0.044^{+0.015}_{-0.023}$ | $1.11 \pm 0.03$ | $0.138^{+0.009}_{-0.008}$ | $8.860^{+2.926}_{-2.156}$ | sdB | 0.000 |
| GaiaDR32896588449084891136 | $26857^{+3805}_{-3258}$ | $5.31 \pm 0.20$ | $5.48^{+0.08}_{-0.08}$ | $-10.836^{+0.038}_{-0.040}$ | $0.029^{+0.025}_{-0.027}$ | $1.56 \pm 0.03$ | $0.207^{+0.020}_{-0.019}$ | $20.254^{+14.997}_{-8.698}$ | sdB | 0.024 |
| CPD-64481 | $26872^{+597}_{-356}$ | $5.52 \pm 0.18$ | $5.61^{+0.01}_{-0.01}$ | $-10.453^{+0.006}_{-0.002}$ | $0.000^{+0.005}_{-0.000}$ | $4.40 \pm 0.04$ | $0.178^{+0.003}_{-0.002}$ | $14.999^{+1.371}_{-0.959}$ | sdB | 0.018 |
| HE0452-3654 | $26966^{+1125}_{-569}$ | $5.57 \pm 0.18$ | $5.49^{+0.04}_{-0.04}$ | $-10.961^{+0.008}_{-0.001}$ | $0.002^{+0.008}_{-0.002}$ | $1.19 \pm 0.03$ | $0.205^{+0.009}_{-0.009}$ | $20.441^{+3.741}_{-2.614}$ | sdB | 0.006 |
| GaiaDR355581740876568899712 | $26999^{+1154}_{-1244}$ | $5.52 \pm 0.18$ | $5.41^{+0.07}_{-0.06}$ | $-11.105^{+0.014}_{-0.013}$ | $0.076^{+0.008}_{-0.010}$ | $0.78 \pm 0.03$ | $0.223^{+0.017}_{-0.015}$ | $23.690^{+5.986}_{-4.905}$ | sdB | 0.003 |
| GALEXJ03271-6352 | $27090^{+1014}_{-833}$ | $5.53 \pm 0.18$ | $5.52^{+0.03}_{-0.03}$ | $-10.854^{+0.010}_{-0.001}$ | $0.057^{+0.008}_{-0.007}$ | $1.58 \pm 0.03$ | $0.198^{+0.007}_{-0.006}$ | $19.059^{+3.270}_{-2.602}$ | sdB | 0.004 |
| GaiaDR35484055590632640512 | $27404^{+2692}_{-2058}$ | $5.44 \pm 0.19$ | $5.51^{+0.09}_{-0.13}$ | $-11.076^{+0.023}_{-0.078}$ | $0.095^{+0.021}_{-0.019}$ | $0.91 \pm 0.02$ | $0.200^{+0.020}_{-0.030}$ | $19.840^{+10.520}_{-7.066}$ | sdB | 0.036 |
| EC03591-3232 | $27664^{+335}_{-1219}$ | $5.50 \pm 0.18$ | $5.76^{+0.03}_{-0.02}$ | $-10.437^{+0.014}_{-0.009}$ | $0.016^{+0.007}_{-0.011}$ | $5.43 \pm 0.04$ | $0.150^{+0.005}_{-0.004}$ | $11.585^{+1.148}_{-1.752}$ | sdB | 0.026 |
| GALEXJ05009-2941 | $27810^{+1477}_{-1434}$ | $5.52 \pm 0.18$ | $5.71^{+0.06}_{-0.06}$ | $-10.918^{+0.029}_{-0.027}$ | $0.000^{+0.009}_{-0.000}$ | $1.69 \pm 0.03$ | $0.158^{+0.012}_{-0.011}$ | $13.514^{+3.858}_{-3.040}$ | sdB | 0.015 |
| GaiaDR35534967239610063616 | $27994^{+2049}_{-1759}$ | $5.61 \pm 0.17$ | $5.69^{+0.06}_{-0.06}$ | $-11.135^{+0.020}_{-0.022}$ | $0.089^{+0.014}_{-0.013}$ | $1.00 \pm 0.03$ | $0.162^{+0.012}_{-0.011}$ | $14.556^{+5.274}_{-3.786}$ | sdB | 0.013 |
| GaiaDR35495392380148092288 | $27999^{+6814}_{-3763}$ | $5.59 \pm 0.17$ | $5.56^{+0.11}_{-0.12}$ | $-11.167^{+0.040}_{-0.064}$ | $0.088^{+0.047}_{-0.039}$ | $0.80 \pm 0.02$ | $0.187^{+0.024}_{-0.026}$ | $20.041^{+27.175}_{-10.042}$ | sdB | 0.084 |
| GaiaDR355301271849924058112 | $28000^{+2828}_{-1880}$ | $5.71 \pm 0.16$ | $5.55^{+0.08}_{-0.08}$ | $-11.209^{+0.021}_{-0.029}$ | $0.132^{+0.020}_{-0.017}$ | $0.72 \pm 0.03$ | $0.190^{+0.018}_{-0.016}$ | $20.389^{+10.080}_{-6.088}$ | sdB | 0.017 |
| GaiaDR355609606246432238080 | $28000^{+5925}_{-3096}$ | $5.59 \pm 0.17$ | $5.72^{+0.10}_{-0.11}$ | $-11.241^{+0.035}_{-0.059}$ | $0.027^{+0.037}_{-0.026}$ | $0.80 \pm 0.04$ | $0.157^{+0.019}_{-0.020}$ | $14.158^{+15.853}_{-6.294}$ | sdB | 0.019 |
| TYC8147-498-1 | $28393^{+3042}_{-1823}$ | $5.59 \pm 0.17$ | $5.70^{+0.05}_{-0.06}$ | $-10.590^{+0.021}_{-0.031}$ | $0.012^{+0.020}_{-0.012}$ | $3.56 \pm 0.04$ | $0.160^{+0.009}_{-0.011}$ | $15.045^{+7.443}_{-4.071}$ | sdB | 0.021 |
| TYC7641-1741-1 | $28791^{+2071}_{-1463}$ | $5.58 \pm 0.18$ | $4.78^{+0.06}_{-0.06}$ | $-10.625^{+0.017}_{-0.026}$ | $0.064^{+0.014}_{-0.013}$ | $1.14 \pm 0.03$ | $0.461^{+0.030}_{-0.031}$ | $132.805^{+45.139}_{-30.687}$ | sdB | 0.007 |
| GaiaDR35487768984998366592 | $29399^{+3704}_{-2387}$ | $5.85 \pm 0.15$ | $5.51^{+0.10}_{-0.11}$ | $-11.233^{+0.026}_{-0.056}$ | $0.144^{+0.024}_{-0.031}$ | $0.64 \pm 0.03$ | $0.199^{+0.024}_{-0.025}$ | $27.268^{+17.687}_{-9.956}$ | sdB | 0.010 |
| GaiaDR32909497952544966272 | $29614^{+2624}_{-2481}$ | $5.67 \pm 0.17$ | $5.72^{+0.11}_{-0.09}$ | $-11.090^{+0.049}_{-0.043}$ | 0.033 | $1.16 \pm 0.02$ | $0.156^{+0.020}_{-0.016}$ | $16.894^{+8.569}_{-5.779}$ | sdB | 0.027 |
| GALEXJ05487-5817 | $29899^{+1949}_{-1514}$ | $5.70 \pm 0.17$ | $5.83^{+0.04}_{-0.04}$ | $-10.826^{+0.016}_{-0.018}$ | $0.041^{+0.012}_{-0.010}$ | $2.40 \pm 0.05$ | $0.138^{+0.006}_{-0.006}$ | $13.774^{+4.089}_{-2.877}$ | sdB | 0.006 |
| HE0447-3654 | $29989^{+1812}_{-1598}$ | $5.66 \pm 0.17$ | $5.61^{+0.08}_{-0.07}$ | $-11.161^{+0.030}_{-0.030}$ | 0.011 | $0.86 \pm 0.03$ | $0.179^{+0.017}_{-0.015}$ | $23.359^{+7.930}_{-5.858}$ | sdB | 0.014 |
| GaiaDR32903766885624126208 | $30325^{+2664}_{-892}$ | $5.73 \pm 0.16$ | $5.73^{+0.05}_{-0.08}$ | $-10.945^{+0.011}_{-0.049}$ | $0.003^{+0.016}_{-0.003}$ | $1.61 \pm 0.03$ | $0.154^{+0.008}_{-0.015}$ | $18.433^{+6.790}_{-3.870}$ | sdOB | 0.000 |
| HE0444-4945 | $30551^{+2237}_{-1855}$ | $5.57 \pm 0.18$ | $5.87^{+0.09}_{-0.08}$ | $-11.269^{+0.032}_{-0.036}$ | 0.011 | $0.90 \pm 0.03$ | $0.132^{+0.013}_{-0.012}$ | $13.823^{+5.453}_{-3.839}$ | sdOB | 0.009 |
| GALEXJ06206-5705 | $30733^{+2077}_{-2171}$ | $5.73 \pm 0.16$ | $5.63^{+0.09}_{-0.08}$ | $-11.167^{+0.034}_{-0.031}$ | 0.048 | $0.87 \pm 0.03$ | $0.174^{+0.018}_{-0.015}$ | $24.289^{+9.461}_{-7.077}$ | sdOB | 0.014 |
| GALEXJ07015-6717 | $30751^{+2339}_{-1796}$ | $5.81 \pm 0.15$ | $5.80^{+0.04}_{-0.05}$ | $-10.854^{+0.018}_{-0.022}$ | $0.046^{+0.014}_{-0.012}$ | $2.18 \pm 0.03$ | $0.142^{+0.007}_{-0.008}$ | $16.400^{+5.766}_{-3.909}$ | sdOB | 0.000 |
| GaiaDR35289713470152476800 | $31122^{+6019}_{-3685}$ | $5.86 \pm 0.15$ | $6.06^{+0.12}_{-0.17}$ | $-11.357^{+0.043}_{-0.099}$ | $0.181^{+0.038}_{-0.037}$ | $0.90 \pm 0.03$ | $0.106^{+0.015}_{-0.021}$ | $9.433^{+10.131}_{-4.625}$ | sdOB | 0.000 |

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|---|---|---|---|---|---|---|---|---|---|---|
| GaiaDR3527812036128860185 6 | $31152^{+4873}_{-3095}$ | $5.76 \pm 0.16$ | $6.02^{+0.06}_{-0.04}$ | $-11.231^{+0.032}_{-0.001}$ | $0.131^{+0.025}_{-0.022}$ | $1.20 \pm 0.03$ | $0.111^{+0.008}_{-0.006}$ | $10.849^{+8.409}_{-3.965}$ | sdOB | 0.010 |
| GaiaDR3527447723258685670 4 | $31375^{+6022}_{-4081}$ | $5.74 \pm 0.16$ | $5.98^{+0.10}_{-0.10}$ | $-11.354^{+0.035}_{-0.048}$ | $0.155^{+0.038}_{-0.051}$ | $0.84 \pm 0.03$ | $0.116^{+0.013}_{-0.013}$ | $11.906^{+12.268}_{-5.582}$ | sdOB | 0.048 |
| GaiaDR3527357542689633830 4 | $31634^{+4040}_{-2495}$ | $5.77 \pm 0.16$ | $5.57^{+0.10}_{-0.09}$ | $-11.290^{+0.024}_{-0.037}$ | $0.124^{+0.016}_{-0.041}$ | $0.61 \pm 0.03$ | $0.186^{+0.021}_{-0.019}$ | $32.331^{+20.672}_{-11.241}$ | sdOB | 0.000 |
| GaiaDR3556651659189299968 0 | $31701^{+7413}_{-3077}$ | $5.63 \pm 0.17$ | $5.97^{+0.10}_{-0.11}$ | $-11.438^{+0.024}_{-0.057}$ | $0.032^{+0.045}_{-0.032}$ | $0.68 \pm 0.03$ | $0.117^{+0.013}_{-0.014}$ | $13.122^{+16.108}_{-5.511}$ | sdOB | 0.023 |
| GaiaDR3550726263896432742 4 | $32146^{+2556}_{-1971}$ | $5.83 \pm 0.15$ | $5.52^{+0.06}_{-0.06}$ | $-10.964^{+0.021}_{-0.023}$ | $0.296^{+0.013}_{-0.013}$ | $1.22 \pm 0.02$ | $0.197^{+0.013}_{-0.013}$ | $37.606^{+14.266}_{-9.645}$ | sdOB | 0.004 |
| GaiaDR3555730003875321254 4 | $32419^{+2181}_{-1913}$ | $5.66 \pm 0.17$ | $5.67^{+0.08}_{-0.08}$ | $-11.159^{+0.032}_{-0.033}$ | 0.074 | $0.93 \pm 0.03$ | $0.165^{+0.016}_{-0.014}$ | $27.255^{+10.037}_{-7.272}$ | sdOB | 0.000 |
| GaiaDR3532079443478779865 6 | $32698^{+1278}_{-1150}$ | $5.82 \pm 0.15$ | $5.69^{+0.07}_{-0.06}$ | $-11.229^{+0.014}_{-0.016}$ | 0.487 | $0.81 \pm 0.04$ | $0.162^{+0.012}_{-0.011}$ | $27.214^{+6.294}_{-5.023}$ | sdOB | 0.024 |
| GaiaDR3292609765755150694 4 | $32731^{+6972}_{-4600}$ | $5.88 \pm 0.15$ | $5.95^{+0.12}_{-0.12}$ | $-11.320^{+0.045}_{-0.062}$ | $0.285^{+0.027}_{-0.039}$ | $0.87 \pm 0.04$ | $0.121^{+0.016}_{-0.017}$ | $15.369^{+18.195}_{-7.775}$ | sdOB | 0.043 |
| GaiaDR3548911141997628364 8 | $33042^{+4223}_{-3390}$ | $5.77 \pm 0.16$ | $5.91^{+0.10}_{-0.10}$ | $-11.381^{+0.032}_{-0.048}$ | $0.131^{+0.016}_{-0.019}$ | $0.73 \pm 0.03$ | $0.126^{+0.015}_{-0.014}$ | $17.007^{+11.535}_{-6.777}$ | sdOB | 0.000 |
| GaiaDR3527692213413105228 8 | $33051^{+3774}_{-3159}$ | $5.78 \pm 0.16$ | $5.87^{+0.08}_{-0.08}$ | $-11.129^{+0.035}_{-0.040}$ | $0.127^{+0.016}_{-0.020}$ | $1.24 \pm 0.02$ | $0.132^{+0.013}_{-0.012}$ | $18.830^{+11.058}_{-6.902}$ | sdOB | 0.000 |
| GaiaDR3527549311261162764 8 | $33213^{+5042}_{-4191}$ | $5.84 \pm 0.15$ | $5.80^{+0.11}_{-0.11}$ | $-11.189^{+0.043}_{-0.054}$ | $0.102^{+0.018}_{-0.028}$ | $1.00 \pm 0.03$ | $0.143^{+0.017}_{-0.017}$ | $22.435^{+18.537}_{-10.223}$ | sdOB | 0.024 |
| EC05282-6032 | $33566^{+1028}_{-904}$ | $5.86 \pm 0.15$ | $5.93^{+0.06}_{-0.06}$ | $-11.285^{+0.011}_{-0.028}$ | 0.040 | $0.93 \pm 0.03$ | $0.122^{+0.009}_{-0.009}$ | $17.176^{+3.386}_{-2.894}$ | sdOB | 0.021 |
| GaiaDR3528006127418673945 6 | $34031^{+2998}_{-2469}$ | $5.86 \pm 0.15$ | $5.77^{+0.07}_{-0.07}$ | $-11.136^{+0.025}_{-0.031}$ | $0.058^{+0.011}_{-0.015}$ | $1.09 \pm 0.03$ | $0.149^{+0.012}_{-0.012}$ | $26.798^{+11.752}_{-7.943}$ | sdOB | 0.000 |
| GaiaDR3288924326473392256 0 | $34580^{+4410}_{-3751}$ | $5.86 \pm 0.15$ | $5.86^{+0.08}_{-0.05}$ | $-11.236^{+0.041}_{-0.004}$ | $0.038^{+0.014}_{-0.020}$ | $0.99 \pm 0.03$ | $0.133^{+0.012}_{-0.008}$ | $23.477^{+15.125}_{-9.087}$ | sdOB | 0.010 |
| GaiaDR3555972652347863257 6 | $35364^{+2829}_{-3135}$ | $5.92 \pm 0.15$ | $5.78^{+0.08}_{-0.06}$ | $-11.233^{+0.038}_{-0.002}$ | $0.081^{+0.012}_{-0.016}$ | $0.91 \pm 0.03$ | $0.146^{+0.013}_{-0.009}$ | $30.355^{+12.800}_{-9.839}$ | sdOB | 0.000 |
| GaiaDR3560285974616136601 6 | $35882^{+17118}_{-5467}$ | $5.61 \pm 0.15$ | $6.61^{+0.13}_{-0.19}$ | $-11.464^{+0.053}_{-0.112}$ | $0.024^{+0.021}_{-0.024}$ | $1.34 \pm 0.04$ | $0.056^{+0.008}_{-0.012}$ | $5.042^{+16.640}_{-3.021}$ | sdOB | 0.000 |
| EC04582-5357 | $36357^{+1154}_{-910}$ | $5.51 \pm 0.15$ | $5.74^{+0.02}_{-0.02}$ | $-10.776^{+0.010}_{-0.002}$ | 0.013 | $2.43 \pm 0.04$ | $0.154^{+0.004}_{-0.004}$ | $37.523^{+5.257}_{-4.145}$ | sdOB | 0.014 |
| HD269696 | $36797^{+1494}_{-1528}$ | $5.44 \pm 0.15$ | $5.44^{+0.04}_{-0.04}$ | $-10.559^{+0.020}_{-0.018}$ | $0.003^{+0.007}_{-0.003}$ | $2.84 \pm 0.04$ | $0.216^{+0.011}_{-0.010}$ | $77.146^{+15.786}_{-13.492}$ | sdOB | 0.003 |
| GaiaDR3549226642993510950 4 | $37058^{+6050}_{-4257}$ | $5.46 \pm 0.15$ | $6.17^{+0.10}_{-0.11}$ | $-11.402^{+0.039}_{-0.059}$ | $0.184^{+0.007}_{-0.023}$ | $0.94 \pm 0.03$ | $0.093^{+0.011}_{-0.012}$ | $14.807^{+12.842}_{-6.514}$ | sdOB | 0.005 |
| GaiaDR3465846536344258892 8 | $37317^{+2043}_{-1653}$ | $5.56 \pm 0.15$ | $5.33^{+0.03}_{-0.02}$ | $-10.543^{+0.015}_{-0.002}$ | $0.032^{+0.004}_{-0.004}$ | $2.62 \pm 0.05$ | $0.244^{+0.008}_{-0.006}$ | $105.382^{+25.505}_{-18.564}$ | sdOB | 0.000 |
| GaiaDR3288309802552664755 2 | $37904^{+6687}_{-3962}$ | $5.39 \pm 0.19$ | $5.94^{+0.13}_{-0.10}$ | $-11.413^{+0.055}_{-0.043}$ | $0.072^{+0.006}_{-0.021}$ | $0.71 \pm 0.03$ | $0.121^{+0.018}_{-0.014}$ | $28.926^{+26.948}_{-12.394}$ | sdOB | 0.000 |
| GaiaDR3529599343389453440 0 | $38000^{+5020}_{-4970}$ | $5.42 \pm 0.15$ | $5.99^{+0.09}_{-0.06}$ | $-11.380^{+0.045}_{-0.001}$ | $0.207^{+0.005}_{-0.015}$ | $0.83 \pm 0.03$ | $0.115^{+0.011}_{-0.008}$ | $25.282^{+17.573}_{-11.166}$ | sdOB | 0.005 |
| GaiaDR3550649693219552755 2 | $39000^{+16000}_{-6503}$ | $5.39 \pm 0.15$ | $5.83^{+0.15}_{-0.15}$ | $-11.327^{+0.058}_{-0.083}$ | $0.204^{+0.018}_{-0.018}$ | $0.75 \pm 0.02$ | $0.138^{+0.024}_{-0.024}$ | $42.907^{+116.067}_{-25.830}$ | sdOB | 0.021 |
| GaiaDR3479154832668378316 8 | $39119^{+6939}_{-2832}$ | $5.40 \pm 0.15$ | $5.55^{+0.07}_{-0.08}$ | $-10.980^{+0.027}_{-0.044}$ | $0.000^{+0.005}_{-0.000}$ | $1.20 \pm 0.03$ | $0.191^{+0.016}_{-0.019}$ | $80.390^{+69.058}_{-26.992}$ | sdOB | 0.009 |

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|---|---|---|---|---|---|---|---|---|---|---|
| GALEXJ06126-2712 | $39262^{+3612}_{-2139}$ | $5.46 \pm 0.15$ | $5.86^{+0.04}_{-0.03}$ | $-11.018^{+0.020}_{-0.002}$ | $0.024^{+0.003}_{-0.003}$ | $1.62 \pm 0.03$ | $0.133^{+0.006}_{-0.005}$ | $38.699^{+15.995}_{-8.687}$ | sdOB | 0.000 |
| GALEXJ06532-6659 | $39609^{+6550}_{-4604}$ | $5.39 \pm 0.19$ | $5.57^{+0.12}_{-0.10}$ | $-11.251^{+0.051}_{-0.039}$ | $0.058^{+0.011}_{-0.012}$ | $0.68 \pm 0.03$ | $0.186^{+0.026}_{-0.021}$ | $79.039^{+70.179}_{-34.938}$ | sdOB | 0.007 |
| GaiaDR34801267700235568768 | $39999^{+5871}_{-2933}$ | $5.37 \pm 0.15$ | $5.71^{+0.06}_{-0.05}$ | $-11.092^{+0.023}_{-0.009}$ | $0.037^{+0.008}_{-0.007}$ | $1.14 \pm 0.03$ | $0.159^{+0.010}_{-0.008}$ | $60.539^{+42.357}_{-18.107}$ | sdOB | 0.040 |
| GaiaDR35488364920301457152 | $40387^{+8484}_{-3258}$ | $5.42 \pm 0.15$ | $5.93^{+0.08}_{-0.10}$ | $-11.220^{+0.028}_{-0.051}$ | $0.195^{+0.011}_{-0.012}$ | $1.07 \pm 0.02$ | $0.123^{+0.011}_{-0.014}$ | $38.130^{+40.257}_{-14.091}$ | sdO | 0.000 |
| EC04013-4017 | $40929^{+2234}_{-2265}$ | $5.39 \pm 0.15$ | $6.20^{+0.05}_{-0.04}$ | $-11.244^{+0.019}_{-0.015}$ | 0.008 | $1.41 \pm 0.03$ | $0.090^{+0.005}_{-0.005}$ | $20.645^{+5.585}_{-4.564}$ | sdO | 0.023 |
| GaiaDR35573125962446736384 | $42947^{+12052}_{-3619}$ | $5.39 \pm 0.15$ | $5.74^{+0.09}_{-0.10}$ | $-11.293^{+0.022}_{-0.056}$ | $0.065^{+0.014}_{-0.004}$ | $0.72 \pm 0.03$ | $0.154^{+0.016}_{-0.018}$ | $77.817^{+117.292}_{-31.189}$ | sdO | 0.000 |
| GALEXJ05179-3047 | $43398^{+9579}_{-3741}$ | $5.44 \pm 0.15$ | $6.05^{+0.06}_{-0.08}$ | $-11.039^{+0.023}_{-0.043}$ | $0.012^{+0.010}_{-0.006}$ | $1.87 \pm 0.03$ | $0.108^{+0.007}_{-0.010}$ | $38.081^{+43.310}_{-13.802}$ | sdO | 0.000 |
| HD49798 | $44092^{+3024}_{-2257}$ | $5.48 \pm 0.15$ | $3.98^{+0.03}_{-0.03}$ | $-9.996^{+0.011}_{-0.013}$ | $0.052^{+0.005}_{-0.006}$ | $1.92 \pm 0.05$ | $1.165^{+0.044}_{-0.044}$ | $4652.280^{+1431.199}_{-962.597}$ | sdO | 0.000 |
| GaiaDR35286825950756440832 | $45115^{+9884}_{-4710}$ | $5.44 \pm 0.15$ | $5.48^{+0.10}_{-0.09}$ | $-11.199^{+0.026}_{-0.044}$ | $0.133^{+0.010}_{-0.009}$ | $0.67 \pm 0.02$ | $0.206^{+0.023}_{-0.022}$ | $165.940^{+190.732}_{-70.168}$ | sdO | 0.007 |
| GaiaDR35480083536158472960 | $48927^{+6072}_{-10215}$ | $5.69 \pm 0.15$ | $5.93^{+0.16}_{-0.11}$ | $-11.286^{+0.073}_{-0.047}$ | $0.061^{+0.017}_{-0.020}$ | $0.94 \pm 0.04$ | $0.124^{+0.023}_{-0.015}$ | $75.937^{+64.334}_{-45.651}$ | sdO | 0.000 |
| GaiaDR35482955799829681792 | $51449^{+3551}_{-9275}$ | $5.69 \pm 0.15$ | $5.99^{+0.09}_{-0.05}$ | $-10.781^{+0.043}_{-0.025}$ | $0.020^{+0.005}_{-0.014}$ | $3.21 \pm 0.04$ | $0.115^{+0.012}_{-0.007}$ | $80.750^{+35.567}_{-42.760}$ | sdO | 0.000 |
| EC04369-6203 | $54965^{+34}_{-8489}$ | $5.78 \pm 0.15$ | $5.84^{+0.09}_{-0.06}$ | $-11.335^{+0.044}_{-0.003}$ | 0.031 | $0.77 \pm 0.03$ | $0.137^{+0.014}_{-0.010}$ | $134.771^{+37.289}_{-56.716}$ | sdO | 0.000 |
| GaiaDR34794521131247330944 | $57073^{+12139}_{-6073}$ | $5.93 \pm 0.15$ | $5.76^{+0.10}_{-0.12}$ | $-11.270^{+0.029}_{-0.064}$ | 0.058 | $0.79 \pm 0.03$ | $0.149^{+0.017}_{-0.020}$ | $218.732^{+244.972}_{-95.876}$ | sdO | 0.013 |
| EC04369-3609 | $73677^{+1323}_{-14862}$ | $6.25 \pm 0.15$ | $7.13^{+0.10}_{-0.06}$ | $-11.803^{+0.050}_{-0.012}$ | $0.006^{+0.005}_{-0.006}$ | $1.14 \pm 0.05$ | $0.031^{+0.003}_{-0.002}$ | $23.269^{+6.968}_{-12.732}$ | sdO | 0.004 |
| EC04386-5049 | $73776^{+1223}_{-13047}$ | $6.25 \pm 0.15$ | $6.93^{+0.09}_{-0.06}$ | $-11.764^{+0.045}_{-0.007}$ | 0.011 | $1.00 \pm 0.04$ | $0.039^{+0.004}_{-0.002}$ | $36.817^{+10.256}_{-18.151}$ | sdO | 0.016 |
| GaiaDR35603285806919711360 | $82993^{+16007}_{-11992}$ | $6.40 \pm 0.15$ | $6.31^{+0.05}_{-0.04}$ | $-11.274^{+0.031}_{-0.001}$ | $0.049^{+0.013}_{-0.012}$ | $1.51 \pm 0.03$ | $0.079^{+0.005}_{-0.003}$ | $276.904^{+281.977}_{-131.557}$ | sdO | 0.000 |
| GALEXJ07158-5407 | $96955^{+2045}_{-3459}$ | $6.60 \pm 0.15$ | $5.84^{+0.07}_{-0.06}$ | $-11.346^{+0.009}_{-0.006}$ | 0.139 | $0.73 \pm 0.03$ | $0.137^{+0.010}_{-0.009}$ | $1458.998^{+284.823}_{-246.667}$ | sdO | 0.000 |
| GaiaDR35498415349929663104 | $99519^{+15481}_{-24518}$ | $6.60 \pm 0.15$ | $5.93^{+0.16}_{-0.12}$ | $-11.393^{+0.071}_{-0.051}$ | 0.095 | $0.74 \pm 0.03$ | $0.123^{+0.023}_{-0.016}$ | $1276.280^{+1335.263}_{-857.441}$ | sdO | 0.000 |
| GaiaDR35290478081711159552 | $115000^{+0}_{-40000}$ | $6.60 \pm 0.15$ | $6.31^{+0.20}_{-0.09}$ | $-11.632^{+0.105}_{-0.016}$ | $0.178^{+0.009}_{-0.033}$ | $0.68 \pm 0.03$ | $0.079^{+0.019}_{-0.008}$ | $790.317^{+450.630}_{-604.108}$ | sdO | 0.001 |
| GaiaDR35590188699286046720 | $115000^{+0}_{-19360}$ | $6.60 \pm 0.15$ | $5.58^{+0.11}_{-0.08}$ | $-11.304^{+0.050}_{-0.003}$ | $0.498^{+0.003}_{-0.009}$ | $0.62 \pm 0.02$ | $0.184^{+0.023}_{-0.017}$ | $4575.385^{+1548.693}_{-2051.010}$ | sdO | 0.004 |
| GaiaDR34792421648153876864 | $115000^{+0}_{-40000}$ | $6.60 \pm 0.15$ | $6.45^{+0.22}_{-0.08}$ | $-11.614^{+0.113}_{-0.016}$ | $0.064^{+0.014}_{-0.032}$ | $0.83 \pm 0.03$ | $0.067^{+0.017}_{-0.007}$ | $583.972^{+334.331}_{-446.606}$ | sdO | 0.006 |
| GaiaDR35315767261466022784 | $115000^{+0}_{-35572}$ | $6.60 \pm 0.15$ | $6.08^{+0.16}_{-0.09}$ | $-11.574^{+0.085}_{-0.011}$ | $0.331^{+0.009}_{-0.021}$ | $0.60 \pm 0.03$ | $0.104^{+0.020}_{-0.011}$ | $1369.167^{+690.053}_{-974.451}$ | sdO | 0.031 |

## A.5 Binary systems

**Table A.4:** Binary systems and their companion star determined by the SED fitting process including atmospheric and stellar parameters are shown. The effective temperature $T_{\text{eff}}$ and the surface gravity log $g$ were determined using evolutionary Tracks of the Kiel diagram (see Figure 4.2). An additional surface gravity log $g_{\text{calc.}}$ was calculated via Newton's law with the canonical mass and SED-derived stellar Radius $R$. Fit parameters from SED are the angular diameter log $\Theta$, reddening $E(44\text{ - }55)$, and parallax $\varpi$. For the SED-determined stellar parameters radius $R/R_{\odot}$ and $L/L_{\odot}$, the median values rather than the mode ones were taken. Spectral classifications Sp. Cl. are based on values of $T_{\text{eff}}$ and $R/R_{\odot}$ (see Chapter 5). A first indication of the quality of the SED-fits is provided by the excess factor $\delta_{\text{exc}}$. The surface ratio $\frac{A_c}{A_{sd}}$ quantifies secondary contribution of the companion star. Binaries with a companion star with $T_{\text{eff}} = 2300$ K are grey-shaded.

| Objekt | $T_{\text{eff}}$ [K] | log $g$ [cm s$^{-2}$] | log $g_{\text{calc.}}$ [cm s$^{-2}$] | log $\Theta$ [rad] | $E(44\text{ - }55)$ [mag] | parallax $\varpi$ [mas] | $R$ [$R_{\odot}$] | $L/L_{\odot}$ | Sp. Cl. | $\delta_{\text{exc}}$ | $\frac{A_c}{A_{sd}}$ |
|---|---|---|---|---|---|---|---|---|---|---|---|
| GaiaDR34766197127600334848 | $11174^{+236}_{-212}$ | $3.67 \pm 0.23$ | $5.01^{+0.17}_{-0.12}$ | $-11.295^{+0.020}_{-0.020}$ | 0.055 | $0.32 \pm 0.04$ | $0.353^{+0.068}_{-0.050}$ | $1.760^{+0.767}_{-0.479}$ | BHB | 0.030 | $3.92^{+0.55}_{-0.47}$ |
| | $7000^{+0}_{-90}$ | $4.5 \pm 0.10$ | | | | | $0.701^{+0.144}_{-0.108}$ | $1.042^{+0.474}_{-0.298}$ | | | |
| GaiaDR35301148910779101568 | $13254^{+1236}_{-808}$ | $3.93 \pm 0.23$ | $5.47^{+0.11}_{-0.12}$ | $-11.045^{+0.045}_{-0.064}$ | 0.184 | $0.95 \pm 0.10$ | $0.209^{+0.027}_{-0.029}$ | $1.236^{+0.632}_{-0.408}$ | BHB | 0.012 | $4.39^{+1.72}_{-0.94}$ |
| | $6845^{+276}_{-266}$ | $4.5 \pm 0.10$ | | | | | $0.442^{+0.095}_{-0.080}$ | $0.385^{+0.201}_{-0.135}$ | | | |
| GaiaDR35583310356402247296 | $13909^{+1924}_{-1148}$ | $4.18 \pm 0.23$ | $5.56^{+0.16}_{-0.14}$ | $-11.438^{+0.043}_{-0.066}$ | 0.125 | $0.43 \pm 0.07$ | $0.188^{+0.034}_{-0.030}$ | $1.237^{+0.962}_{-0.509}$ | BHB | 0.099 | $24.19^{+5.82}_{-4.67}$ |
| | $3487^{+430}_{-298}$ | $4.5 \pm 0.10$ | | | | | $0.922^{+0.203}_{-0.173}$ | $0.116^{+0.093}_{-0.051}$ | | | |
| GaiaDR32895064457249469696 | $14000^{+6000}_{-2330}$ | $4.09 \pm 0.23$ | $5.69^{+0.30}_{-0.32}$ | $-11.479^{+0.107}_{-0.202}$ | 0.052 | $0.44 \pm 0.07$ | $0.163^{+0.057}_{-0.059}$ | $1.000^{+3.056}_{-0.708}$ | BHB | 0.230 | $26.23^{+29.38}_{-9.54}$ |
| | $3649^{+775}_{-695}$ | $4.5 \pm 0.10$ | | | | | $0.850^{+0.487}_{-0.345}$ | $0.110^{+0.259}_{-0.081}$ | | | |
| GaiaDR34661573510987956992 | $14668^{+5331}_{-4607}$ | $4.38 \pm 0.23$ | $5.48^{+0.35}_{-0.22}$ | $-11.351^{+0.142}_{-0.119}$ | 0.190 | $0.48 \pm 0.08$ | $0.207^{+0.083}_{-0.054}$ | $1.817^{+5.459}_{-1.467}$ | BHB | 0.217 | $7.03^{+18.18}_{-5.31}$ |
| | $2800^{+1147}_{-499}$ | $4.5 \pm 0.10$ | | | | | $0.640^{+0.512}_{-0.305}$ | $0.027^{+0.108}_{-0.022}$ | | | |
| GaiaDR34662126393562316800 | $17158^{+2841}_{-3887}$ | $4.59 \pm 0.22$ | $5.51^{+0.19}_{-0.40}$ | $-11.265^{+0.050}_{-0.291}$ | $0.108^{+0.092}_{-0.108}$ | $0.57 \pm 0.09$ | $0.199^{+0.043}_{-0.092}$ | $2.239^{+3.834}_{-1.706}$ | BHB | 0.191 | $3.29^{+4.12}_{-3.29}$ |
| | $2300^{+6700}_{-0}$ | $4.5 \pm 0.10$ | | | | | $0.348^{+0.227}_{-0.183}$ | $0.009^{+0.645}_{-0.008}$ | | | |
| GaiaDR34791280733041446272 | $18079^{+1921}_{-3340}$ | $4.57 \pm 0.22$ | $5.16^{+0.65}_{-0.24}$ | $-11.385^{+0.259}_{-0.093}$ | $0.000^{+0.305}_{-0.000}$ | $0.33 \pm 0.03$ | $0.299^{+0.224}_{-0.082}$ | $8.157^{+17.801}_{-5.077}$ | BHB | 0.149 | $12.29^{+5.73}_{-10.14}$ |
| | $5832^{+740}_{-1678}$ | $4.5 \pm 0.10$ | | | | | $1.039^{+0.810}_{-0.404}$ | $0.909^{+2.532}_{-0.734}$ | | | |

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|---|---|---|---|---|---|---|---|---|---|---|---|
| GaiaDR35290105072390306304 | $19000^{+1000}_{-2968}$ | $4.69 \pm 0.22$ | $4.78^{+0.25}_{-0.16}$ | $-11.319^{+0.032}_{-0.028}$ | $0.159^{+0.042}_{-0.064}$ | $0.23 \pm 0.05$ | $0.464^{+0.134}_{-0.088}$ | $22.510^{+18.708}_{-11.125}$ | BHB | 0.091 | $10.20^{+3.50}_{-6.25}$ |
| | $2300^{+959}_{-0}$ | $4.5 \pm 0.10$ | | | | | $1.436^{+0.528}_{-0.460}$ | $0.076^{+0.164}_{-0.045}$ | | | |
| GaiaDR35517170166447120384 | $19295^{+6700}_{-4172}$ | $5.06 \pm 0.21$ | $5.62^{+0.16}_{-0.12}$ | $-11.502^{+0.051}_{-0.033}$ | $0.104^{+0.067}_{-0.078}$ | $0.40 \pm 0.07$ | $0.176^{+0.032}_{-0.025}$ | $4.132^{+9.375}_{-2.722}$ | BHB | 0.000 | $6.37^{+5.10}_{-5.16}$ |
| | $2300^{+2487}_{-0}$ | $4.5 \pm 0.10$ | | | | | $0.465^{+0.171}_{-0.172}$ | $0.010^{+0.089}_{-0.007}$ | | | |
| GaiaDR35501929045495259392 | $19408^{+591}_{-412}$ | $4.88 \pm 0.22$ | $4.71^{+0.31}_{-0.18}$ | $-11.367^{+0.012}_{-0.013}$ | $0.000^{+0.023}_{-0.000}$ | $0.19 \pm 0.04$ | $0.502^{+0.180}_{-0.106}$ | $32.761^{+28.237}_{-12.572}$ | BHB | 0.005 | $5.38^{+0.47}_{-0.48}$ |
| | $5187^{+190}_{-189}$ | $4.5 \pm 0.10$ | | | | | $1.165^{+0.423}_{-0.249}$ | $0.886^{+0.785}_{-0.352}$ | | | |
| GaiaDR34660215201850894976 | $20478^{+34522}_{-5477}$ | $5.01 \pm 0.21$ | $5.90^{+0.28}_{-0.44}$ | $-11.284^{+0.108}_{-0.317}$ | $0.000^{+0.276}_{-0.000}$ | $0.89 \pm 0.10$ | $0.127^{+0.041}_{-0.064}$ | $3.019^{+103.265}_{-2.645}$ | sdB | 0.000 | $10.06^{+69.09}_{-5.55}$ |
| | $2897^{+491}_{-596}$ | $4.5 \pm 0.10$ | | | | | $0.441^{+0.684}_{-0.247}$ | $0.012^{+0.067}_{-0.010}$ | | | |
| GaiaDR35296135618787346560 | $21234^{+33766}_{-6233}$ | $5.39 \pm 0.21$ | $5.91^{+0.65}_{-0.61}$ | $-11.606^{+0.218}_{-0.545}$ | $0.000^{+0.484}_{-0.000}$ | $0.42 \pm 0.06$ | $0.125^{+0.094}_{-0.088}$ | $3.607^{+113.250}_{-3.411}$ | sdB | 0.262 | $104.98^{+795.02}_{-104.98}$ |
| | $3300^{+5700}_{-999}$ | $4.5 \pm 0.10$ | | | | | $1.537^{+3.116}_{-1.116}$ | $0.511^{+20.320}_{-0.495}$ | | | |
| GaiaDR35589331045856740736 | $21388^{+2614}_{-1663}$ | $5.10 \pm 0.21$ | $4.95^{+0.23}_{-0.17}$ | $-11.335^{+0.041}_{-0.066}$ | 0.217 | $0.27 \pm 0.04$ | $0.381^{+0.101}_{-0.074}$ | $28.679^{+24.996}_{-12.638}$ | sdB | 0.023 | $8.81^{+3.00}_{-1.59}$ |
| | $5879^{+358}_{-283}$ | $4.5 \pm 0.10$ | | | | | $1.150^{+0.351}_{-0.255}$ | $1.448^{+1.129}_{-0.611}$ | | | |
| GaiaDR32920433832635823744 | $21742^{+6010}_{-3506}$ | $5.04 \pm 0.21$ | $5.80^{+0.35}_{-0.31}$ | $-11.637^{+0.124}_{-0.188}$ | 0.096 | $0.35 \pm 0.06$ | $0.143^{+0.058}_{-0.050}$ | $4.251^{+9.024}_{-2.906}$ | sdB | 0.195 | $12.55^{+16.40}_{-5.69}$ |
| | $6049^{+973}_{-1008}$ | $4.5 \pm 0.10$ | | | | | $0.521^{+0.342}_{-0.223}$ | $0.308^{+0.719}_{-0.226}$ | | | |
| GaiaDR35582930062816702976 | $21862^{+24737}_{-5721}$ | $5.09 \pm 0.21$ | $5.43^{+0.44}_{-0.48}$ | $-11.407^{+0.149}_{-0.368}$ | 0.221 | $0.38 \pm 0.05$ | $0.219^{+0.112}_{-0.122}$ | $11.705^{+176.955}_{-10.379}$ | sdB | 0.202 | $12.46^{+49.49}_{-6.27}$ |
| | $5300^{+1264}_{-1042}$ | $4.5 \pm 0.10$ | | | | | $0.834^{+1.036}_{-0.491}$ | $0.483^{+2.406}_{-0.417}$ | | | |
| GaiaDR35286603437090749568 | $22914^{+2502}_{-2107}$ | $5.20 \pm 0.20$ | $5.04^{+0.22}_{-0.16}$ | $-11.362^{+0.050}_{-0.055}$ | 0.096 | $0.28 \pm 0.04$ | $0.342^{+0.087}_{-0.064}$ | $29.621^{+24.493}_{-13.072}$ | sdB | 0.230 | $69.56^{+26.86}_{-18.17}$ |
| | $2987^{+342}_{-379}$ | $4.5 \pm 0.10$ | | | | | $2.876^{+0.901}_{-0.673}$ | $0.576^{+0.604}_{-0.304}$ | | | |
| GaiaDR32924945987837468288 | $22924^{+4132}_{-3658}$ | $5.18 \pm 0.20$ | $5.58^{+0.17}_{-0.13}$ | $-11.527^{+0.038}_{-0.047}$ | $0.043^{+0.041}_{-0.043}$ | $0.36 \pm 0.06$ | $0.184^{+0.036}_{-0.028}$ | $8.518^{+9.358}_{-4.628}$ | sdB | 0.026 | $11.34^{+12.46}_{-6.37}$ |
| | $2800^{+1281}_{-499}$ | $4.5 \pm 0.10$ | | | | | $0.646^{+0.291}_{-0.224}$ | $0.027^{+0.092}_{-0.020}$ | | | |
| GaiaDR32895178080607397760 | $23453^{+2213}_{-1073}$ | $5.36 \pm 0.19$ | $5.68^{+0.19}_{-0.14}$ | $-11.647^{+0.032}_{-0.035}$ | $0.000^{+0.037}_{-0.000}$ | $0.31 \pm 0.05$ | $0.164^{+0.035}_{-0.026}$ | $7.778^{+4.901}_{-2.732}$ | sdB | 0.011 | $32.10^{+4.13}_{-3.46}$ |
| | $5748^{+208}_{-147}$ | $4.5 \pm 0.10$ | | | | | $0.930^{+0.208}_{-0.155}$ | $0.863^{+0.454}_{-0.276}$ | | | |
| EC04499-4506 | $24074^{+2082}_{-1662}$ | $5.29 \pm 0.20$ | $4.98^{+0.35}_{-0.21}$ | $-11.520^{+0.050}_{-0.060}$ | 0.012 | $0.18 \pm 0.03$ | $0.367^{+0.150}_{-0.089}$ | $41.970^{+46.858}_{-19.929}$ | sdB | 0.008 | $30.28^{+9.13}_{-5.94}$ |
| | $6742^{+130}_{-129}$ | $4.5 \pm 0.10$ | | | | | $2.045^{+0.889}_{-0.540}$ | $7.787^{+8.310}_{-3.594}$ | | | |

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|---|---|---|---|---|---|---|---|---|---|---|---|
| GaiaDR3288269515759419456 0 | $25112^{+5131}_{-3768}$ | $5.41 \pm 0.19$ | $5.70^{+0.20}_{-0.17}$ | $-11.570^{+0.063}_{-0.079}$ | 0.054 | $0.37 \pm 0.07$ | $0.159^{+0.037}_{-0.031}$ | $9.335^{+11.939}_{-5.192}$ | sdB | 0.217 | $84.13^{+48.11}_{-37.40}$ |
| | $2300^{+506}_{-0}$ | $4.5 \pm 0.10$ | | | | | $1.454^{+0.527}_{-0.441}$ | $0.069^{+0.083}_{-0.038}$ | | | |
| GaiaDR3549699423114908044 8 | $25462^{+5617}_{-3300}$ | $5.64 \pm 0.17$ | $5.50^{+0.14}_{-0.12}$ | $-11.419^{+0.035}_{-0.040}$ | $0.052^{+0.106}_{-0.052}$ | $0.42 \pm 0.05$ | $0.201^{+0.033}_{-0.027}$ | $16.101^{+19.727}_{-7.946}$ | sdB | 0.035 | $11.06^{+8.66}_{-2.17}$ |
| | $4066^{+533}_{-1257}$ | $4.5 \pm 0.10$ | | | | | $0.703^{+0.220}_{-0.141}$ | $0.107^{+0.139}_{-0.080}$ | | | |
| GaiaDR3551727637239708006 4 | $25698^{+1784}_{-1634}$ | $5.45 \pm 0.19$ | $5.66^{+0.16}_{-0.12}$ | $-11.575^{+0.031}_{-0.033}$ | 0.221 | $0.35 \pm 0.07$ | $0.167^{+0.031}_{-0.024}$ | $11.057^{+5.878}_{-3.715}$ | sdB | 0.000 | $10.37^{+3.87}_{-3.01}$ |
| | $4293^{+490}_{-435}$ | $4.5 \pm 0.10$ | | | | | $0.540^{+0.138}_{-0.114}$ | $0.089^{+0.078}_{-0.042}$ | | | |
| GaiaDR3480714180674775961 6 | $25726^{+1962}_{-1409}$ | $5.46 \pm 0.19$ | $5.49^{+0.16}_{-0.12}$ | $-11.522^{+0.019}_{-0.022}$ | $0.008^{+0.018}_{-0.008}$ | $0.32 \pm 0.04$ | $0.205^{+0.039}_{-0.029}$ | $17.093^{+9.337}_{-5.619}$ | sdB | 0.000 | $3.54^{+7.71}_{-2.24}$ |
| | $3070^{+1654}_{-769}$ | $4.5 \pm 0.10$ | | | | | $0.429^{+0.286}_{-0.170}$ | $0.017^{+0.086}_{-0.014}$ | | | |
| GaiaDR3529313965576087654 4 | $25998^{+1439}_{-1713}$ | $5.46 \pm 0.19$ | $6.08^{+0.11}_{-0.09}$ | $-11.653^{+0.017}_{-0.012}$ | $0.103^{+0.016}_{-0.022}$ | $0.48 \pm 0.08$ | $0.104^{+0.013}_{-0.010}$ | $4.372^{+1.671}_{-1.245}$ | sdB | 0.007 | $30.96^{+5.95}_{-13.22}$ |
| | $2300^{+385}_{-0}$ | $4.5 \pm 0.10$ | | | | | $0.559^{+0.102}_{-0.127}$ | $0.009^{+0.007}_{-0.004}$ | | | |
| GaiaDR3289265102492850560 0 | $26000^{+29000}_{-6532}$ | $5.34 \pm 0.19$ | $5.22^{+0.30}_{-0.32}$ | $-11.390^{+0.081}_{-0.211}$ | $0.048^{+0.113}_{-0.048}$ | $0.31 \pm 0.04$ | $0.278^{+0.096}_{-0.102}$ | $39.345^{+570.714}_{-32.402}$ | sdB | 0.202 | $48.53^{+87.82}_{-29.89}$ |
| | $2300^{+751}_{-0}$ | $4.5 \pm 0.10$ | | | | | $2.002^{+1.500}_{-0.944}$ | $0.150^{+0.388}_{-0.112}$ | | | |
| GaiaDR3550845330697669273 6 | $26081^{+5658}_{-3423}$ | $5.46 \pm 0.18$ | $5.21^{+0.31}_{-0.22}$ | $-11.515^{+0.074}_{-0.108}$ | 0.076 | $0.24 \pm 0.04$ | $0.283^{+0.100}_{-0.073}$ | $35.552^{+54.939}_{-20.859}$ | sdB | 0.047 | $9.52^{+5.89}_{-2.83}$ |
| | $5743^{+607}_{-536}$ | $4.5 \pm 0.10$ | | | | | $0.891^{+0.397}_{-0.275}$ | $0.779^{+1.023}_{-0.444}$ | | | |
| GaiaDR3555798551797691356 16 | $26158^{+28841}_{-11057}$ | $5.50 \pm 0.18$ | $5.80^{+0.63}_{-0.41}$ | $-11.591^{+0.227}_{-0.277}$ | $0.000^{+0.147}_{-0.000}$ | $0.40 \pm 0.05$ | $0.143^{+0.104}_{-0.068}$ | $10.494^{+178.780}_{-9.890}$ | sdB | 0.042 | $40.15^{+103.13}_{-25.83}$ |
| | $4525^{+278}_{-406}$ | $4.5 \pm 0.10$ | | | | | $0.999^{+1.132}_{-0.560}$ | $0.355^{+1.315}_{-0.289}$ | | | |
| GaiaDR3551048499830876582 4 | $26161^{+2244}_{-1976}$ | $5.62 \pm 0.17$ | $5.29^{+0.16}_{-0.13}$ | $-11.369^{+0.040}_{-0.044}$ | 0.163 | $0.37 \pm 0.04$ | $0.258^{+0.049}_{-0.039}$ | $28.423^{+17.100}_{-10.497}$ | sdB | 0.021 | $6.99^{+1.62}_{-1.29}$ |
| | $5472^{+380}_{-359}$ | $4.5 \pm 0.10$ | | | | | $0.684^{+0.152}_{-0.121}$ | $0.378^{+0.234}_{-0.144}$ | | | |
| GaiaDR3548634834295718515 2 | $26201^{+2109}_{-1886}$ | $5.41 \pm 0.19$ | $5.47^{+0.14}_{-0.11}$ | $-11.438^{+0.021}_{-0.024}$ | $0.127^{+0.016}_{-0.019}$ | $0.39 \pm 0.04$ | $0.209^{+0.033}_{-0.026}$ | $18.802^{+9.826}_{-6.314}$ | sdB | 0.004 | $13.52^{+4.23}_{-7.47}$ |
| | $2300^{+691}_{-0}$ | $4.5 \pm 0.10$ | | | | | $0.752^{+0.185}_{-0.217}$ | $0.019^{+0.024}_{-0.010}$ | | | |
| GaiaDR3548443519702224921 6 | $26275^{+1780}_{-1683}$ | $5.42 \pm 0.19$ | $5.35^{+0.19}_{-0.14}$ | $-11.499^{+0.032}_{-0.032}$ | 0.082 | $0.29 \pm 0.05$ | $0.241^{+0.054}_{-0.039}$ | $25.139^{+15.314}_{-9.021}$ | sdB | 0.000 | $6.75^{+1.96}_{-1.58}$ |
| | $4427^{+456}_{-494}$ | $4.5 \pm 0.10$ | | | | | $0.628^{+0.166}_{-0.126}$ | $0.134^{+0.117}_{-0.064}$ | | | |
| GaiaDR3530255350252249894 4 | $26609^{+9756}_{-5361}$ | $5.46 \pm 0.18$ | $6.40^{+0.17}_{-0.25}$ | $-11.756^{+0.048}_{-0.161}$ | $0.075^{+0.088}_{-0.075}$ | $0.53 \pm 0.09$ | $0.071^{+0.014}_{-0.021}$ | $2.242^{+5.636}_{-1.538}$ | sdB | 0.072 | $4.24^{+20.28}_{-4.24}$ |
| | $3009^{+3991}_{-708}$ | $4.5 \pm 0.10$ | | | | | $0.184^{+0.184}_{-0.098}$ | $0.004^{+0.082}_{-0.004}$ | | | |

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|---|---|---|---|---|---|---|---|---|---|---|---|
| GaiaDR35535218198838613248 | $26791^{+10023}_{-1719}$ | $5.52 \pm 0.18$ | $6.18^{+0.19}_{-0.12}$ | $-11.716^{+0.087}_{-0.036}$ | $0.000^{+0.225}_{-0.000}$ | $0.48 \pm 0.06$ | $0.092^{+0.021}_{-0.013}$ | $5.006^{+10.249}_{-2.315}$ | sdB | 0.000 | $50.78^{+8.52}_{-17.32}$ |
| | $4564^{+79}_{-172}$ | $4.5 \pm 0.10$ | | | | | $0.637^{+0.163}_{-0.133}$ | $0.153^{+0.092}_{-0.059}$ | | | |
| GaiaDR32924781885728125824 | $27104^{+8578}_{-3147}$ | $5.58 \pm 0.18$ | $5.81^{+0.23}_{-0.25}$ | $-11.549^{+0.071}_{-0.156}$ | 0.104 | $0.43 \pm 0.05$ | $0.141^{+0.037}_{-0.041}$ | $10.533^{+19.997}_{-6.243}$ | sdB | 0.036 | $10.38^{+10.49}_{-2.95}$ |
| | $6479^{+657}_{-445}$ | $4.5 \pm 0.10$ | | | | | $0.470^{+0.214}_{-0.154}$ | $0.362^{+0.461}_{-0.209}$ | | | |
| GaiaDR35285175510786390144 | $27136^{+2008}_{-2347}$ | $5.52 \pm 0.18$ | $5.53^{+0.17}_{-0.13}$ | $-11.563^{+0.019}_{-0.019}$ | $0.063^{+0.021}_{-0.028}$ | $0.31 \pm 0.05$ | $0.196^{+0.039}_{-0.028}$ | $18.537^{+11.092}_{-6.924}$ | sdB | 0.013 | $4.12^{+5.58}_{-2.71}$ |
| | $2800^{+1755}_{-499}$ | $4.5 \pm 0.10$ | | | | | $0.427^{+0.214}_{-0.161}$ | $0.013^{+0.066}_{-0.010}$ | | | |
| GaiaDR35508459418713888000 | $27498^{+2138}_{-1720}$ | $5.56 \pm 0.18$ | $5.81^{+0.17}_{-0.13}$ | $-11.668^{+0.031}_{-0.036}$ | 0.090 | $0.33 \pm 0.06$ | $0.142^{+0.028}_{-0.021}$ | $10.564^{+6.051}_{-3.675}$ | sdB | 0.006 | $24.11^{+4.25}_{-3.65}$ |
| | $4036^{+240}_{-225}$ | $4.5 \pm 0.10$ | | | | | $0.697^{+0.150}_{-0.116}$ | $0.117^{+0.066}_{-0.041}$ | | | |
| GaiaDR35492330446422516352 | $27535^{+27464}_{-5387}$ | $5.59 \pm 0.17$ | $6.34^{+0.45}_{-0.42}$ | $-11.830^{+0.160}_{-0.296}$ | $0.000^{+0.271}_{-0.000}$ | $0.42 \pm 0.08$ | $0.077^{+0.040}_{-0.037}$ | $4.115^{+44.533}_{-3.426}$ | sdB | 0.066 | $9.70^{+546.07}_{-9.70}$ |
| | $5900^{+1100}_{-3599}$ | $4.5 \pm 0.10$ | | | | | $0.591^{+1.450}_{-0.465}$ | $0.114^{+3.620}_{-0.111}$ | | | |
| GaiaDR35294081726770000128 | $27765^{+2826}_{-3528}$ | $5.53 \pm 0.18$ | $5.74^{+0.36}_{-0.19}$ | $-11.559^{+0.155}_{-0.079}$ | $0.031^{+0.131}_{-0.031}$ | $0.41 \pm 0.04$ | $0.154^{+0.064}_{-0.034}$ | $12.529^{+14.920}_{-6.461}$ | sdB | 0.000 | $6.31^{+4.39}_{-4.43}$ |
| | $6998^{+1}_{-2203}$ | $4.5 \pm 0.10$ | | | | | $0.394^{+0.204}_{-0.148}$ | $0.211^{+0.377}_{-0.168}$ | | | |
| GaiaDR35488909419075142656 | $27845^{+3039}_{-2178}$ | $5.65 \pm 0.17$ | $5.47^{+0.14}_{-0.11}$ | $-11.442^{+0.022}_{-0.027}$ | $0.117^{+0.030}_{-0.028}$ | $0.38 \pm 0.05$ | $0.209^{+0.034}_{-0.027}$ | $24.522^{+15.387}_{-8.937}$ | sdB | 0.014 | $9.50^{+8.22}_{-3.19}$ |
| | $3036^{+579}_{-661}$ | $4.5 \pm 0.10$ | | | | | $0.670^{+0.241}_{-0.166}$ | $0.033^{+0.053}_{-0.022}$ | | | |
| GaiaDR34656365841661681280 | $27920^{+8214}_{-3751}$ | $5.59 \pm 0.17$ | $5.75^{+0.23}_{-0.21}$ | $-11.615^{+0.062}_{-0.117}$ | 0.102 | $0.35 \pm 0.06$ | $0.151^{+0.039}_{-0.036}$ | $13.613^{+24.492}_{-7.954}$ | sdB | 0.043 | $7.77^{+10.27}_{-3.14}$ |
| | $3400^{+1556}_{-1099}$ | $4.5 \pm 0.10$ | | | | | $0.441^{+0.234}_{-0.153}$ | $0.024^{+0.104}_{-0.020}$ | | | |
| GaiaDR34801239868847420160 | $28000^{+3911}_{-1459}$ | $5.61 \pm 0.17$ | $6.30^{+0.13}_{-0.11}$ | $-11.787^{+0.025}_{-0.035}$ | $0.000^{+0.040}_{-0.000}$ | $0.45 \pm 0.08$ | $0.081^{+0.012}_{-0.010}$ | $3.895^{+2.617}_{-1.287}$ | sdB | 0.142 | $28.10^{+11.86}_{-17.26}$ |
| | $2300^{+809}_{-0}$ | $4.5 \pm 0.10$ | | | | | $0.423^{+0.111}_{-0.132}$ | $0.006^{+0.010}_{-0.003}$ | | | |
| GaiaDR355568867519552983808 | $28084^{+7228}_{-3126}$ | $5.52 \pm 0.18$ | $5.30^{+0.28}_{-0.20}$ | $-11.546^{+0.071}_{-0.085}$ | $0.055^{+0.136}_{-0.055}$ | $0.25 \pm 0.04$ | $0.255^{+0.083}_{-0.059}$ | $41.272^{+66.575}_{-23.089}$ | sdB | 0.030 | $12.09^{+6.39}_{-3.86}$ |
| | $5285^{+401}_{-831}$ | $4.5 \pm 0.10$ | | | | | $0.894^{+0.366}_{-0.260}$ | $0.495^{+0.626}_{-0.294}$ | | | |
| GaiaDR35290692589556889472 | $28202^{+3387}_{-2998}$ | $5.68 \pm 0.17$ | $5.88^{+0.17}_{-0.28}$ | $-11.536^{+0.026}_{-0.191}$ | $0.190^{+0.022}_{-0.134}$ | $0.46 \pm 0.05$ | $0.131^{+0.025}_{-0.042}$ | $8.956^{+7.904}_{-5.014}$ | sdB | 0.004 | $7.64^{+3.49}_{-6.58}$ |
| | $2300^{+6603}_{-0}$ | $4.5 \pm 0.10$ | | | | | $0.338^{+0.132}_{-0.145}$ | $0.006^{+0.560}_{-0.005}$ | | | |
| GaiaDR35559386533866470784 | $28245^{+26754}_{-6190}$ | $5.64 \pm 0.17$ | $5.61^{+0.48}_{-0.42}$ | $-11.649^{+0.151}_{-0.291}$ | 0.122 | $0.27 \pm 0.04$ | $0.178^{+0.098}_{-0.085}$ | $23.832^{+246.113}_{-20.107}$ | sdB | 0.055 | $35.42^{+96.04}_{-17.57}$ |
| | $6441^{+417}_{-381}$ | $4.5 \pm 0.10$ | | | | | $1.145^{+1.172}_{-0.616}$ | $2.035^{+6.442}_{-1.610}$ | | | |

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|---|---|---|---|---|---|---|---|---|---|---|---|
| GaiaDR32896320821082297856 | $28325^{+4826}_{-1557}$ | $5.51 \pm 0.18$ | $5.61^{+0.10}_{-0.09}$ | $-11.342^{+0.027}_{-0.034}$ | $0.000^{+0.063}_{-0.000}$ | $0.57 \pm 0.06$ | $0.177^{+0.021}_{-0.019}$ | $19.811^{+15.740}_{-6.429}$ | sdB | 0.007 | $18.52^{+7.55}_{-3.48}$ |
| | $3800^{+341}_{-520}$ | $4.5 \pm 0.10$ | | | | | $0.778^{+0.158}_{-0.122}$ | $0.108^{+0.078}_{-0.051}$ | | | |
| GaiaDR35494147969208716928 | $28641^{+5244}_{-3232}$ | $5.63 \pm 0.17$ | $5.89^{+0.17}_{-0.16}$ | $-11.557^{+0.058}_{-0.079}$ | 0.255 | $0.47 \pm 0.06$ | $0.129^{+0.026}_{-0.023}$ | $10.404^{+10.948}_{-5.050}$ | sdB | 0.002 | $31.47^{+13.54}_{-7.35}$ |
| | $5044^{+142}_{-117}$ | $4.5 \pm 0.10$ | | | | | $0.730^{+0.200}_{-0.162}$ | $0.312^{+0.201}_{-0.125}$ | | | |
| GaiaDR35286134216206883072 | $28833^{+748}_{-785}$ | $5.65 \pm 0.17$ | $5.89^{+0.13}_{-0.10}$ | $-11.649^{+0.014}_{-0.013}$ | 0.066 | $0.39 \pm 0.07$ | $0.129^{+0.020}_{-0.015}$ | $10.388^{+3.669}_{-2.496}$ | sdB | 0.013 | $20.95^{+4.25}_{-3.40}$ |
| | $3558^{+244}_{-230}$ | $4.5 \pm 0.10$ | | | | | $0.594^{+0.108}_{-0.087}$ | $0.051^{+0.027}_{-0.017}$ | | | |
| GaiaDR34679287154399283072 | $28891^{+1163}_{-1373}$ | $5.66 \pm 0.17$ | $6.40^{+0.12}_{-0.10}$ | $-11.839^{+0.029}_{-0.018}$ | $0.000^{+0.013}_{-0.000}$ | $0.45 \pm 0.09$ | $0.072^{+0.010}_{-0.008}$ | $3.193^{+1.154}_{-0.825}$ | sdB | 0.024 | $9.28^{+5.33}_{-1.73}$ |
| | $4583^{+401}_{-868}$ | $4.5 \pm 0.10$ | | | | | $0.227^{+0.057}_{-0.039}$ | $0.019^{+0.016}_{-0.010}$ | | | |
| GaiaDR35576266713115602816 | $29011^{+25989}_{-4137}$ | $7.00 \pm 0.15$ | | $-12.028^{+0.068}_{-0.178}$ | $0.000^{+0.075}_{-0.000}$ | $1.11 \pm 0.17$ | $0.018^{+0.004}_{-0.006}$ | $0.252^{+2.260}_{-0.170}$ | WD | 0.000 | $159.49^{+194.11}_{-35.78}$ |
| | $3322^{+132}_{-123}$ | $4.5 \pm 0.10$ | | | | | $0.240^{+0.111}_{-0.079}$ | $0.006^{+0.007}_{-0.004}$ | | | |
| GaiaDR32894192127913592320 | $29038^{+12757}_{-3882}$ | $5.65 \pm 0.17$ | $6.09^{+0.20}_{-0.19}$ | $-11.663^{+0.067}_{-0.106}$ | $0.000^{+0.087}_{-0.000}$ | $0.46 \pm 0.06$ | $0.102^{+0.023}_{-0.023}$ | $7.701^{+21.913}_{-4.557}$ | sdB | 0.128 | $11.80^{+8.46}_{-4.54}$ |
| | $4221^{+620}_{-650}$ | $4.5 \pm 0.10$ | | | | | $0.353^{+0.137}_{-0.108}$ | $0.034^{+0.048}_{-0.021}$ | | | |
| GaiaDR35603648851913271680 | $29114^{+6506}_{-2612}$ | $5.78 \pm 0.16$ | $5.13^{+0.23}_{-0.16}$ | $-11.440^{+0.027}_{-0.047}$ | $0.096^{+0.047}_{-0.028}$ | $0.26 \pm 0.04$ | $0.311^{+0.081}_{-0.056}$ | $70.942^{+90.623}_{-34.271}$ | sdB | 0.034 | $3.52^{+6.58}_{-2.41}$ |
| | $2900^{+1586}_{-599}$ | $4.5 \pm 0.10$ | | | | | $0.648^{+0.405}_{-0.268}$ | $0.032^{+0.155}_{-0.026}$ | | | |
| GaiaDR35283706636273810304 | $29664^{+1496}_{-1388}$ | $5.65 \pm 0.17$ | $5.92^{+0.17}_{-0.13}$ | $-11.726^{+0.032}_{-0.033}$ | 0.062 | $0.34 \pm 0.05$ | $0.124^{+0.024}_{-0.018}$ | $10.754^{+5.302}_{-3.358}$ | sdB | 0.037 | $59.28^{+8.62}_{-7.43}$ |
| | $5273^{+116}_{-115}$ | $4.5 \pm 0.10$ | | | | | $0.954^{+0.197}_{-0.152}$ | $0.635^{+0.299}_{-0.191}$ | | | |
| GaiaDR34817947875744817536 | $29749^{+1969}_{-1564}$ | $5.72 \pm 0.16$ | $5.75^{+0.14}_{-0.11}$ | $-11.593^{+0.017}_{-0.019}$ | $0.022^{+0.013}_{-0.011}$ | $0.37 \pm 0.05$ | $0.152^{+0.025}_{-0.019}$ | $16.659^{+7.774}_{-5.006}$ | sdB | 0.000 | $3.16^{+2.29}_{-2.39}$ |
| | $2300^{+743}_{-0}$ | $4.5 \pm 0.10$ | | | | | $0.280^{+0.095}_{-0.100}$ | $0.003^{+0.004}_{-0.002}$ | | | |
| GaiaDR35290123042533267712 | $29919^{+4092}_{-2620}$ | $5.84 \pm 0.15$ | $6.10^{+0.11}_{-0.10}$ | $-11.619^{+0.028}_{-0.038}$ | $0.174^{+0.026}_{-0.028}$ | $0.52 \pm 0.07$ | $0.102^{+0.013}_{-0.012}$ | $7.714^{+5.460}_{-2.913}$ | sdB | 0.010 | $7.70^{+3.93}_{-6.15}$ |
| | $2300^{+2082}_{-0}$ | $4.5 \pm 0.10$ | | | | | $0.285^{+0.077}_{-0.099}$ | $0.003^{+0.022}_{-0.002}$ | | | |
| GaiaDR34674210954028216704 | $30000^{+2985}_{-822}$ | $5.71 \pm 0.16$ | $6.11^{+0.13}_{-0.10}$ | $-11.753^{+0.015}_{-0.018}$ | $0.000^{+0.033}_{-0.000}$ | $0.39 \pm 0.07$ | $0.100^{+0.015}_{-0.012}$ | $8.017^{+4.033}_{-2.274}$ | sdB | 0.016 | $15.12^{+2.24}_{-1.62}$ |
| | $4549^{+212}_{-294}$ | $4.5 \pm 0.10$ | | | | | $0.392^{+0.066}_{-0.052}$ | $0.058^{+0.026}_{-0.018}$ | | | |
| GaiaDR35590514189085810560 | $30000^{+14999}_{-7941}$ | $5.70 \pm 0.16$ | $5.58^{+0.33}_{-0.27}$ | $-11.510^{+0.122}_{-0.153}$ | 0.244 | $0.37 \pm 0.06$ | $0.184^{+0.070}_{-0.056}$ | $26.766^{+110.438}_{-21.079}$ | sdB | 0.111 | $55.85^{+71.83}_{-37.60}$ |
| | $2300^{+821}_{-0}$ | $4.5 \pm 0.10$ | | | | | $1.424^{+0.918}_{-0.625}$ | $0.077^{+0.186}_{-0.055}$ | | | |

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|---|---|---|---|---|---|---|---|---|---|---|---|
| GaiaDR3532002597493942681 6 | $30000^{+3708}_{-2520}$ | $5.70 \pm 0.16$ | $5.62^{+0.16}_{-0.13}$ | $-11.513^{+0.042}_{-0.054}$ | 0.365 | $0.39 \pm 0.06$ | $0.175^{+0.033}_{-0.027}$ | $23.170^{+16.995}_{-9.375}$ | sdB | 0.061 | $33.20^{+7.59}_{-5.87}$ |
| | $3650^{+318}_{-316}$ | $4.5 \pm 0.10$ | | | | | $1.012^{+0.223}_{-0.182}$ | $0.162^{+0.112}_{-0.067}$ | | | |
| EC04558-4906 | $30291^{+4636}_{-3624}$ | $5.62 \pm 0.17$ | $5.48^{+0.33}_{-0.21}$ | $-11.699^{+0.091}_{-0.073}$ | $0.000^{+0.033}_{-0.000}$ | $0.22 \pm 0.04$ | $0.206^{+0.078}_{-0.050}$ | $33.310^{+43.388}_{-18.197}$ | sdOB | 0.019 | $40.04^{+14.84}_{-12.57}$ |
| | $6766^{+255}_{-251}$ | $4.5 \pm 0.10$ | | | | | $1.293^{+0.560}_{-0.374}$ | $3.152^{+3.423}_{-1.589}$ | | | |
| GaiaDR3483476971645491788 8 | $30667^{+2775}_{-1757}$ | $5.71 \pm 0.16$ | $5.54^{+0.16}_{-0.12}$ | $-11.506^{+0.029}_{-0.031}$ | $0.000^{+0.030}_{-0.000}$ | $0.36 \pm 0.04$ | $0.194^{+0.035}_{-0.027}$ | $31.111^{+17.708}_{-10.492}$ | sdOB | 0.000 | $7.62^{+1.24}_{-1.00}$ |
| | $5641^{+231}_{-242}$ | $4.5 \pm 0.10$ | | | | | $0.537^{+0.106}_{-0.083}$ | $0.262^{+0.127}_{-0.082}$ | | | |
| GaiaDR3529343999423429196 8 | $30693^{+5350}_{-3947}$ | $5.76 \pm 0.16$ | $5.68^{+0.11}_{-0.09}$ | $-11.401^{+0.026}_{-0.034}$ | $0.236^{+0.052}_{-0.058}$ | $0.53 \pm 0.08$ | $0.165^{+0.021}_{-0.018}$ | $22.216^{+20.832}_{-10.279}$ | sdOB | 0.023 | $10.79^{+1.57}_{-1.17}$ |
| | $5291^{+319}_{-337}$ | $4.5 \pm 0.10$ | | | | | $0.544^{+0.078}_{-0.067}$ | $0.207^{+0.090}_{-0.064}$ | | | |
| GaiaDR3548456974546047488 0 | $31308^{+4256}_{-3054}$ | $5.73 \pm 0.16$ | $5.55^{+0.18}_{-0.13}$ | $-11.593^{+0.030}_{-0.010}$ | $0.077^{+0.026}_{-0.026}$ | $0.30 \pm 0.05$ | $0.189^{+0.039}_{-0.028}$ | $32.464^{+26.676}_{-13.860}$ | sdOB | 0.007 | $6.12^{+9.79}_{-3.14}$ |
| | $3060^{+933}_{-760}$ | $4.5 \pm 0.10$ | | | | | $0.505^{+0.281}_{-0.177}$ | $0.020^{+0.058}_{-0.016}$ | | | |
| GaiaDR3290785851198878041 6 | $31827^{+3843}_{-1632}$ | $5.77 \pm 0.16$ | $6.19^{+0.19}_{-0.15}$ | $-11.883^{+0.036}_{-0.057}$ | $0.000^{+0.019}_{-0.000}$ | $0.31 \pm 0.06$ | $0.092^{+0.020}_{-0.016}$ | $8.384^{+6.086}_{-3.215}$ | sdOB | 0.004 | $44.33^{+10.27}_{-5.03}$ |
| | $6200^{+235}_{-176}$ | $4.5 \pm 0.10$ | | | | | $0.620^{+0.149}_{-0.115}$ | $0.518^{+0.296}_{-0.181}$ | | | |
| GaiaDR3550714835847429952 0 | $32203^{+4507}_{-3274}$ | $5.83 \pm 0.15$ | $5.91^{+0.16}_{-0.12}$ | $-11.678^{+0.032}_{-0.040}$ | $0.108^{+0.021}_{-0.034}$ | $0.37 \pm 0.07$ | $0.126^{+0.023}_{-0.018}$ | $15.842^{+12.783}_{-6.794}$ | sdOB | 0.003 | $13.15^{+8.57}_{-9.37}$ |
| | $2300^{+2218}_{-0}$ | $4.5 \pm 0.10$ | | | | | $0.464^{+0.158}_{-0.163}$ | $0.009^{+0.069}_{-0.006}$ | | | |
| EC05243-3449 | $32579^{+3676}_{-1427}$ | $5.82 \pm 0.15$ | $5.49^{+0.24}_{-0.16}$ | $-11.662^{+0.022}_{-0.031}$ | $0.002^{+0.031}_{-0.002}$ | $0.23 \pm 0.04$ | $0.205^{+0.058}_{-0.038}$ | $47.007^{+38.505}_{-18.620}$ | sdOB | 0.011 | $30.68^{+3.82}_{-2.64}$ |
| | $5508^{+138}_{-111}$ | $4.5 \pm 0.10$ | | | | | $1.144^{+0.328}_{-0.218}$ | $1.094^{+0.732}_{-0.385}$ | | | |
| GaiaDR3291911252889893043 2 | $32596^{+6911}_{-4311}$ | $5.84 \pm 0.15$ | $5.96^{+0.20}_{-0.37}$ | $-11.577^{+0.042}_{-0.264}$ | $0.082^{+0.027}_{-0.037}$ | $0.46 \pm 0.05$ | $0.119^{+0.027}_{-0.050}$ | $13.025^{+19.222}_{-8.780}$ | sdOB | 0.024 | $4.39^{+8.26}_{-3.22}$ |
| | $3000^{+6000}_{-699}$ | $4.5 \pm 0.10$ | | | | | $0.247^{+0.188}_{-0.123}$ | $0.008^{+0.357}_{-0.007}$ | | | |
| GaiaDR3555732479008617898 24 | $32788^{+5399}_{-1393}$ | $7.00 \pm 0.15$ | | $-12.051^{+0.017}_{-0.034}$ | $0.004^{+0.028}_{-0.004}$ | $1.10 \pm 0.17$ | $0.018^{+0.001}_{-0.001}$ | $0.351^{+0.262}_{-0.089}$ | WD | 0.000 | $53.92^{+26.63}_{-51.17}$ |
| | $2300^{+2164}_{-0}$ | $4.5 \pm 0.10$ | | | | | $0.135^{+0.029}_{-0.048}$ | $0.001^{+0.005}_{-0.000}$ | | | |
| GaiaDR3550554210942484032 0 | $32815^{+6891}_{-4206}$ | $5.84 \pm 0.15$ | $6.33^{+0.26}_{-0.18}$ | $-11.883^{+0.103}_{-0.083}$ | $0.000^{+0.126}_{-0.000}$ | $0.38 \pm 0.05$ | $0.077^{+0.023}_{-0.016}$ | $6.704^{+9.126}_{-3.681}$ | sdOB | 0.012 | $135.06^{+58.60}_{-55.17}$ |
| | $5028^{+254}_{-94}$ | $4.5 \pm 0.10$ | | | | | $0.884^{+0.341}_{-0.261}$ | $0.472^{+0.449}_{-0.241}$ | | | |
| GaiaDR3548732254461932864 0 | $33696^{+4774}_{-3567}$ | $5.88 \pm 0.15$ | $6.73^{+0.12}_{-0.11}$ | $-11.602^{+0.054}_{-0.056}$ | 0.157 | $1.14 \pm 0.19$ | $0.049^{+0.007}_{-0.006}$ | $2.804^{+2.159}_{-1.179}$ | sdOB | 0.024 | $21.29^{+5.91}_{-4.19}$ |
| | $4594^{+238}_{-308}$ | $4.5 \pm 0.10$ | | | | | $0.226^{+0.043}_{-0.037}$ | $0.020^{+0.010}_{-0.007}$ | | | |

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|---|---|---|---|---|---|---|---|---|---|---|---|
| EC04003-3551 | $33747^{+6949}_{-1392}$ | $5.86 \pm 0.15$ | $5.89^{+0.16}_{-0.13}$ | $-11.675^{+0.018}_{-0.054}$ | $0.000^{+0.025}_{-0.000}$ | $0.35 \pm 0.05$ | $0.129^{+0.024}_{-0.019}$ | $22.708^{+22.036}_{-8.538}$ | sdOB | 0.060 | $16.77^{+8.67}_{-10.88}$ |
| | $2300^{+882}_{-0}$ | $4.5 \pm 0.10$ | | | | | $0.527^{+0.168}_{-0.176}$ | $0.010^{+0.018}_{-0.006}$ | | | |
| GaiaDR35500438416965102848 | $33770^{+4827}_{-3832}$ | $5.85 \pm 0.15$ | $5.76^{+0.21}_{-0.16}$ | $-11.670^{+0.061}_{-0.060}$ | 0.076 | $0.32 \pm 0.03$ | $0.149^{+0.036}_{-0.027}$ | $26.696^{+25.416}_{-12.831}$ | sdOB | 0.000 | $67.25^{+19.83}_{-15.84}$ |
| | $5837^{+113}_{-118}$ | $4.5 \pm 0.10$ | | | | | $1.222^{+0.351}_{-0.268}$ | $1.559^{+1.039}_{-0.616}$ | | | |
| GaiaDR35578307823308779520 | $33827^{+15373}_{-14626}$ | $5.89 \pm 0.14$ | $7.04^{+0.45}_{-0.57}$ | $-11.887^{+0.168}_{-0.480}$ | $0.200^{+0.048}_{-0.200}$ | $0.82 \pm 0.12$ | $0.034^{+0.018}_{-0.023}$ | $0.811^{+5.921}_{-0.769}$ | sdOB | 0.031 | $28.46^{+60.26}_{-27.77}$ |
| | $2300^{+6700}_{-0}$ | $4.5 \pm 0.10$ | | | | | $0.177^{+0.206}_{-0.119}$ | $0.003^{+0.184}_{-0.003}$ | | | |
| GaiaDR35579979287142410752 | $34583^{+4978}_{-4288}$ | $5.77 \pm 0.16$ | $5.86^{+0.17}_{-0.13}$ | $-11.687^{+0.038}_{-0.042}$ | $0.064^{+0.015}_{-0.031}$ | $0.34 \pm 0.06$ | $0.133^{+0.026}_{-0.020}$ | $23.095^{+20.489}_{-10.939}$ | sdOB | 0.007 | $27.01^{+17.25}_{-15.59}$ |
| | $2400^{+681}_{-99}$ | $4.5 \pm 0.10$ | | | | | $0.695^{+0.244}_{-0.227}$ | $0.018^{+0.028}_{-0.011}$ | | | |
| EC04403-5811 | $34961^{+3459}_{-1749}$ | $5.71 \pm 0.15$ | $6.02^{+0.15}_{-0.12}$ | $-11.738^{+0.023}_{-0.028}$ | $0.000^{+0.017}_{-0.000}$ | $0.37 \pm 0.06$ | $0.111^{+0.019}_{-0.015}$ | $17.427^{+9.877}_{-5.673}$ | sdOB | 0.000 | $19.65^{+2.87}_{-2.04}$ |
| | $4860^{+139}_{-152}$ | $4.5 \pm 0.10$ | | | | | $0.493^{+0.091}_{-0.071}$ | $0.122^{+0.052}_{-0.035}$ | | | |
| GaiaDR35504018392466526208 | $34967^{+18132}_{-7783}$ | $5.88 \pm 0.15$ | $6.33^{+0.38}_{-0.28}$ | $-11.844^{+0.145}_{-0.166}$ | $0.000^{+0.205}_{-0.000}$ | $0.41 \pm 0.07$ | $0.077^{+0.034}_{-0.025}$ | $9.276^{+38.829}_{-7.085}$ | sdOB | 0.045 | $15.69^{+542.45}_{-15.69}$ |
| | $5700^{+3300}_{-3399}$ | $4.5 \pm 0.10$ | | | | | $0.746^{+1.283}_{-0.565}$ | $0.258^{+6.780}_{-0.253}$ | | | |
| GaiaDR34777986671092511104 | $35301^{+1323}_{-1088}$ | $7.00 \pm 0.15$ | | $-12.066^{+0.013}_{-0.017}$ | 0.006 | $1.25 \pm 0.16$ | $0.015^{+0.001}_{-0.001}$ | $0.324^{+0.062}_{-0.050}$ | WD | 0.026 | $29.11^{+14.47}_{-25.54}$ |
| | $2300^{+1895}_{-0}$ | $4.5 \pm 0.10$ | | | | | $0.085^{+0.018}_{-0.030}$ | $0.000^{+0.002}_{-0.000}$ | | | |
| GaiaDR35288437422486830464 | $35449^{+3070}_{-1990}$ | $5.61 \pm 0.15$ | $5.99^{+0.15}_{-0.12}$ | $-11.714^{+0.030}_{-0.037}$ | 0.175 | $0.37 \pm 0.06$ | $0.114^{+0.020}_{-0.016}$ | $19.209^{+10.521}_{-6.379}$ | sdOB | 0.034 | $33.86^{+5.69}_{-4.10}$ |
| | $4944^{+149}_{-143}$ | $4.5 \pm 0.10$ | | | | | $0.668^{+0.128}_{-0.102}$ | $0.241^{+0.108}_{-0.071}$ | | | |
| GaiaDR35507683266582438528 | $35998^{+7898}_{-5673}$ | $5.64 \pm 0.15$ | $6.02^{+0.15}_{-0.12}$ | $-11.699^{+0.049}_{-0.026}$ | $0.170^{+0.017}_{-0.039}$ | $0.41 \pm 0.06$ | $0.111^{+0.019}_{-0.015}$ | $19.469^{+24.770}_{-10.539}$ | sdOB | 0.027 | $49.84^{+18.78}_{-25.86}$ |
| | $2305^{+559}_{-5}$ | $4.5 \pm 0.10$ | | | | | $0.772^{+0.209}_{-0.220}$ | $0.019^{+0.021}_{-0.010}$ | | | |
| GaiaDR35561219140575828480 | $36221^{+18779}_{-8449}$ | $7.00 \pm 0.15$ | | $-12.055^{+0.072}_{-0.228}$ | $0.069^{+0.044}_{-0.069}$ | $1.10 \pm 0.16$ | $0.017^{+0.004}_{-0.007}$ | $0.437^{+1.820}_{-0.337}$ | WD | 0.040 | $15.20^{+79.99}_{-15.20}$ |
| | $2400^{+6600}_{-99}$ | $4.5 \pm 0.10$ | | | | | $0.080^{+0.094}_{-0.045}$ | $0.001^{+0.042}_{-0.001}$ | | | |
| GaiaDR32890227014106160512 | $36580^{+13449}_{-3934}$ | $7.00 \pm 0.15$ | | $-12.106^{+0.058}_{-0.101}$ | $0.000^{+0.066}_{-0.000}$ | $1.06 \pm 0.16$ | $0.016^{+0.003}_{-0.003}$ | $0.469^{+1.016}_{-0.243}$ | WD | 0.016 | $4.73^{+74.39}_{-3.18}$ |
| | $5246^{+1753}_{-2946}$ | $4.5 \pm 0.10$ | | | | | $0.051^{+0.095}_{-0.028}$ | $0.001^{+0.016}_{-0.001}$ | | | |
| GaiaDR35572766039889997696 | $36608^{+7506}_{-4443}$ | $7.00 \pm 0.15$ | | $-12.047^{+0.034}_{-0.063}$ | $0.045^{+0.022}_{-0.031}$ | $1.15 \pm 0.15$ | $0.017^{+0.002}_{-0.002}$ | $0.484^{+0.530}_{-0.223}$ | WD | 0.000 | $4.75^{+3.92}_{-2.69}$ |
| | $4838^{+2162}_{-919}$ | $4.5 \pm 0.10$ | | | | | $0.038^{+0.014}_{-0.012}$ | $0.001^{+0.003}_{-0.001}$ | | | |

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|---|---|---|---|---|---|---|---|---|---|---|---|
| GaiaDR35276694187327436544 | $36701^{+12339}_{-4502}$ | $5.87 \pm 0.15$ | $5.71^{+0.17}_{-0.14}$ | $-11.586^{+0.037}_{-0.057}$ | $0.167^{+0.037}_{-0.035}$ | $0.36 \pm 0.04$ | $0.158^{+0.031}_{-0.025}$ | $45.829^{+90.740}_{-24.151}$ | sdOB | 0.008 | $44.66^{+12.13}_{-6.46}$ |
| | $5385^{+93}_{-104}$ | $4.5 \pm 0.10$ | | | | | $1.070^{+0.244}_{-0.194}$ | $0.864^{+0.448}_{-0.289}$ | | | |
| GaiaDR35301419042743812224 | $36751^{+17909}_{-9583}$ | $5.52 \pm 0.15$ | $5.58^{+0.21}_{-0.14}$ | $-11.609^{+0.087}_{-0.005}$ | $0.164^{+0.045}_{-0.073}$ | $0.32 \pm 0.05$ | $0.183^{+0.045}_{-0.030}$ | $61.809^{+230.292}_{-45.865}$ | sdOB | 0.075 | $10.21^{+17.25}_{-6.90}$ |
| | $2500^{+977}_{-199}$ | $4.5 \pm 0.10$ | | | | | $0.647^{+0.375}_{-0.259}$ | $0.020^{+0.052}_{-0.014}$ | | | |
| GaiaDR35302127579205191808 | $37393^{+17606}_{-15736}$ | $5.43 \pm 0.15$ | $6.10^{+0.40}_{-0.38}$ | $-11.719^{+0.145}_{-0.257}$ | $0.217^{+0.028}_{-0.095}$ | $0.41 \pm 0.07$ | $0.101^{+0.047}_{-0.044}$ | $14.973^{+78.655}_{-13.673}$ | sdOB | 0.014 | $7.99^{+22.19}_{-7.99}$ |
| | $2300^{+6700}_{-0}$ | $4.5 \pm 0.10$ | | | | | $0.322^{+0.319}_{-0.179}$ | $0.011^{+0.632}_{-0.009}$ | | | |
| GaiaDR32895713340909298944 | $37999^{+3296}_{-4231}$ | $5.39 \pm 0.15$ | $6.18^{+0.14}_{-0.11}$ | $-11.807^{+0.030}_{-0.020}$ | $0.060^{+0.010}_{-0.022}$ | $0.38 \pm 0.07$ | $0.092^{+0.015}_{-0.012}$ | $15.631^{+9.394}_{-6.377}$ | sdOB | 0.009 | $4.38^{+19.50}_{-3.93}$ |
| | $3386^{+3706}_{-1086}$ | $4.5 \pm 0.10$ | | | | | $0.253^{+0.221}_{-0.126}$ | $0.011^{+0.158}_{-0.010}$ | | | |
| GaiaDR35477519921721365376 | $38000^{+10918}_{-5465}$ | $5.38 \pm 0.15$ | $5.71^{+0.18}_{-0.14}$ | $-11.633^{+0.043}_{-0.041}$ | $0.025^{+0.039}_{-0.025}$ | $0.33 \pm 0.04$ | $0.159^{+0.034}_{-0.025}$ | $52.177^{+88.808}_{-28.752}$ | sdOB | 0.000 | $12.27^{+2.84}_{-2.38}$ |
| | $5619^{+464}_{-438}$ | $4.5 \pm 0.10$ | | | | | $0.558^{+0.135}_{-0.104}$ | $0.279^{+0.199}_{-0.115}$ | | | |
| GaiaDR34658633245110716032 | $38163^{+5007}_{-3126}$ | $5.38 \pm 0.15$ | $4.11^{+0.32}_{-0.20}$ | $-11.041^{+0.056}_{-0.055}$ | $0.020^{+0.056}_{-0.020}$ | $0.20 \pm 0.02$ | $1.005^{+0.365}_{-0.229}$ | $2058.788^{+2321.342}_{-1003.540}$ | sdOB | 0.000 | $12.36^{+3.90}_{-3.22}$ |
| | $6180^{+248}_{-567}$ | $4.5 \pm 0.10$ | | | | | $3.527^{+1.418}_{-0.926}$ | $15.118^{+16.000}_{-7.490}$ | | | |
| GaiaDR35567153479706896512 | $39296^{+4469}_{-1272}$ | $7.00 \pm 0.15$ | | $-12.041^{+0.024}_{-0.091}$ | 0.047 | $0.91 \pm 0.13$ | $0.022^{+0.002}_{-0.004}$ | $1.043^{+0.524}_{-0.340}$ | WD | 0.000 | $41.74^{+19.66}_{-37.56}$ |
| | $2300^{+2230}_{-0}$ | $4.5 \pm 0.10$ | | | | | $0.137^{+0.038}_{-0.050}$ | $0.001^{+0.006}_{-0.000}$ | | | |
| GaiaDR34656254073729079168 | $39713^{+15786}_{-10028}$ | $5.46 \pm 0.15$ | $6.04^{+0.25}_{-0.19}$ | $-11.784^{+0.086}_{-0.090}$ | $0.045^{+0.053}_{-0.045}$ | $0.34 \pm 0.06$ | $0.108^{+0.031}_{-0.024}$ | $27.671^{+80.468}_{-20.429}$ | sdOB | 0.091 | $434.11^{+247.97}_{-148.54}$ |
| | $2300^{+153}_{-0}$ | $4.5 \pm 0.10$ | | | | | $2.266^{+0.882}_{-0.657}$ | $0.143^{+0.138}_{-0.072}$ | | | |
| GaiaDR35302495778164550912 | $39858^{+15141}_{-6501}$ | $5.38 \pm 0.15$ | $5.14^{+0.22}_{-0.16}$ | $-11.422^{+0.043}_{-0.055}$ | $0.166^{+0.022}_{-0.067}$ | $0.27 \pm 0.03$ | $0.305^{+0.078}_{-0.057}$ | $241.873^{+595.671}_{-148.614}$ | sdOB | 0.000 | $8.62^{+22.75}_{-4.51}$ |
| | $3531^{+2457}_{-1230}$ | $4.5 \pm 0.10$ | | | | | $1.011^{+0.773}_{-0.402}$ | $0.170^{+1.328}_{-0.152}$ | | | |
| GaiaDR35558526475255454976 | $40106^{+14893}_{-4941}$ | $5.37 \pm 0.15$ | $6.17^{+0.18}_{-0.16}$ | $-11.814^{+0.040}_{-0.075}$ | $0.067^{+0.034}_{-0.024}$ | $0.36 \pm 0.07$ | $0.093^{+0.019}_{-0.017}$ | $22.984^{+51.683}_{-12.541}$ | sdO | 0.004 | $6.17^{+27.75}_{-2.97}$ |
| | $3800^{+1434}_{-1499}$ | $4.5 \pm 0.10$ | | | | | $0.266^{+0.285}_{-0.106}$ | $0.013^{+0.072}_{-0.012}$ | | | |
| GaiaDR355509020070861552512 | $40941^{+14059}_{-5571}$ | $5.39 \pm 0.15$ | $6.28^{+0.14}_{-0.13}$ | $-11.697^{+0.044}_{-0.067}$ | $0.178^{+0.019}_{-0.014}$ | $0.54 \pm 0.06$ | $0.082^{+0.013}_{-0.013}$ | $18.426^{+38.114}_{-9.871}$ | sdO | 0.000 | $42.97^{+23.54}_{-24.21}$ |
| | $2300^{+644}_{-0}$ | $4.5 \pm 0.10$ | | | | | $0.531^{+0.167}_{-0.169}$ | $0.009^{+0.012}_{-0.005}$ | | | |
| GaiaDR35314281752539992576 | $41076^{+13924}_{-8997}$ | $5.40 \pm 0.15$ | $5.98^{+0.26}_{-0.38}$ | $-11.735^{+0.051}_{-0.284}$ | $0.175^{+0.027}_{-0.175}$ | $0.33 \pm 0.06$ | $0.116^{+0.035}_{-0.051}$ | $30.455^{+83.597}_{-23.485}$ | sdO | 0.005 | $52.33^{+143.69}_{-52.33}$ |
| | $2400^{+6600}_{-99}$ | $4.5 \pm 0.10$ | | | | | $0.908^{+0.841}_{-0.495}$ | $0.084^{+4.915}_{-0.074}$ | | | |

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|---|---|---|---|---|---|---|---|---|---|---|---|
| GaiaDR3530138094209421 6704 | $41598^{+13402}_{-4889}$ | $5.40 \pm 0.15$ | $6.05^{+0.16}_{-0.15}$ | $-11.696^{+0.040}_{-0.076}$ | 0.221 | $0.41 \pm 0.07$ | $0.107^{+0.020}_{-0.018}$ | $34.326^{+63.996}_{-17.850}$ | sdO | 0.000 | $9.14^{+4.69}_{-4.10}$ |
| | $3900^{+1491}_{-512}$ | $4.5 \pm 0.10$ | | | | | $0.320^{+0.102}_{-0.093}$ | $0.024^{+0.060}_{-0.015}$ | | | |
| GaiaDR3527485903799944 3072 | $41890^{+13109}_{-8874}$ | $5.41 \pm 0.15$ | $5.55^{+0.23}_{-0.17}$ | $-11.577^{+0.066}_{-0.069}$ | $0.145^{+0.026}_{-0.028}$ | $0.31 \pm 0.04$ | $0.191^{+0.050}_{-0.038}$ | $106.809^{+223.944}_{-71.502}$ | sdO | 0.038 | $17.66^{+12.92}_{-13.11}$ |
| | $2300^{+1464}_{-0}$ | $4.5 \pm 0.10$ | | | | | $0.816^{+0.346}_{-0.305}$ | $0.028^{+0.100}_{-0.018}$ | | | |
| GaiaDR3466999841574473 9584 | $42226^{+11370}_{-6707}$ | $5.40 \pm 0.15$ | $5.70^{+0.20}_{-0.14}$ | $-11.667^{+0.042}_{-0.041}$ | $0.024^{+0.036}_{-0.024}$ | $0.30 \pm 0.03$ | $0.160^{+0.036}_{-0.027}$ | $78.664^{+128.758}_{-45.180}$ | sdO | 0.008 | $54.57^{+9.82}_{-8.76}$ |
| | $5937^{+109}_{-110}$ | $4.5 \pm 0.10$ | | | | | $1.178^{+0.290}_{-0.217}$ | $1.553^{+0.872}_{-0.526}$ | | | |
| GaiaDR3554895924662343 2832 | $44000^{+7548}_{-3478}$ | $5.45 \pm 0.15$ | $5.55^{+0.22}_{-0.15}$ | $-11.648^{+0.023}_{-0.034}$ | $0.062^{+0.010}_{-0.007}$ | $0.26 \pm 0.05$ | $0.191^{+0.048}_{-0.033}$ | $136.628^{+138.039}_{-60.572}$ | sdO | 0.011 | $10.53^{+7.26}_{-6.86}$ |
| | $2300^{+1945}_{-0}$ | $4.5 \pm 0.10$ | | | | | $0.631^{+0.251}_{-0.221}$ | $0.018^{+0.102}_{-0.012}$ | | | |
| GaiaDR3479053618757441 3696 | $44278^{+10722}_{-9439}$ | $7.00 \pm 0.15$ | | $-12.170^{+0.080}_{-0.039}$ | $0.008^{+0.035}_{-0.008}$ | $0.91 \pm 0.18$ | $0.017^{+0.003}_{-0.002}$ | $1.007^{+1.494}_{-0.640}$ | WD | 0.174 | $900.00^{+0.00}_{-308.17}$ |
| | $2300^{+101}_{-0}$ | $4.5 \pm 0.10$ | | | | | $0.471^{+0.097}_{-0.080}$ | $0.006^{+0.003}_{-0.002}$ | | | |
| GaiaDR3291128135610849 6640 | $46800^{+8199}_{-9454}$ | $7.00 \pm 0.15$ | | $-12.155^{+0.069}_{-0.041}$ | 0.034 | $0.89 \pm 0.16$ | $0.018^{+0.003}_{-0.002}$ | $1.352^{+1.437}_{-0.815}$ | WD | 0.068 | $689.57^{+210.43}_{-212.54}$ |
| | $2300^{+91}_{-0}$ | $4.5 \pm 0.10$ | | | | | $0.463^{+0.104}_{-0.091}$ | $0.006^{+0.003}_{-0.002}$ | | | |
| GaiaDR3549973664937176 8192 | $51000^{+3999}_{-27136}$ | $5.66 \pm 0.15$ | $6.52^{+0.85}_{-0.18}$ | $-11.936^{+0.327}_{-0.049}$ | 0.092 | $0.45 \pm 0.06$ | $0.063^{+0.061}_{-0.013}$ | $19.165^{+49.380}_{-17.726}$ | sdO | 0.194 | $178.75^{+53.40}_{-130.91}$ |
| | $4631^{+348}_{-672}$ | $4.5 \pm 0.10$ | | | | | $0.826^{+0.754}_{-0.274}$ | $0.266^{+0.701}_{-0.175}$ | | | |
| GaiaDR3555753364274960 17024 | $51400^{+3600}_{-13600}$ | $5.74 \pm 0.15$ | $5.93^{+0.22}_{-0.14}$ | $-11.750^{+0.087}_{-0.021}$ | $0.000^{+0.059}_{-0.000}$ | $0.34 \pm 0.04$ | $0.123^{+0.031}_{-0.020}$ | $82.208^{+70.122}_{-55.164}$ | sdO | 0.008 | $37.83^{+5.85}_{-12.40}$ |
| | $5177^{+160}_{-254}$ | $4.5 \pm 0.10$ | | | | | $0.732^{+0.204}_{-0.156}$ | $0.337^{+0.228}_{-0.136}$ | | | |
| GaiaDR3556664310015314 9696 | $54315^{+684}_{-13241}$ | $5.75 \pm 0.15$ | $5.58^{+0.33}_{-0.19}$ | $-11.811^{+0.052}_{-0.027}$ | $0.066^{+0.020}_{-0.033}$ | $0.19 \pm 0.04$ | $0.184^{+0.069}_{-0.041}$ | $201.914^{+218.421}_{-122.817}$ | sdO | 0.006 | $45.17^{+5.42}_{-8.09}$ |
| | $6230^{+179}_{-208}$ | $4.5 \pm 0.10$ | | | | | $1.220^{+0.471}_{-0.286}$ | $2.006^{+1.893}_{-0.849}$ | | | |
| GaiaDR3555278726077998 2336 | $57232^{+13839}_{-6231}$ | $6.60 \pm 0.15$ | | $-12.093^{+0.029}_{-0.050}$ | $0.000^{+0.010}_{-0.000}$ | $0.70 \pm 0.12$ | $0.025^{+0.003}_{-0.003}$ | $6.467^{+8.392}_{-2.854}$ | WD | 0.109 | $360.82^{+135.59}_{-112.29}$ |
| | $2300^{+167}_{-0}$ | $4.5 \pm 0.10$ | | | | | $0.476^{+0.103}_{-0.096}$ | $0.006^{+0.003}_{-0.002}$ | | | |
| GaiaDR3479687198589087 2448 | $59164^{+15630}_{-5785}$ | $6.60 \pm 0.15$ | | $-12.108^{+0.026}_{-0.040}$ | $0.000^{+0.024}_{-0.000}$ | $0.60 \pm 0.10$ | $0.029^{+0.003}_{-0.003}$ | $9.738^{+13.843}_{-4.112}$ | WD | 0.000 | $5.07^{+12.30}_{-3.00}$ |
| | $4900^{+3486}_{-1815}$ | $4.5 \pm 0.10$ | | | | | $0.070^{+0.051}_{-0.026}$ | $0.003^{+0.024}_{-0.003}$ | | | |
| GaiaDR3528546437740420 8128 | $60079^{+14920}_{-9079}$ | $5.92 \pm 0.15$ | $6.04^{+0.17}_{-0.14}$ | $-11.724^{+0.043}_{-0.054}$ | 0.097 | $0.38 \pm 0.04$ | $0.109^{+0.021}_{-0.017}$ | $146.457^{+213.168}_{-80.381}$ | sdO | 0.007 | $32.40^{+10.23}_{-6.67}$ |
| | $4252^{+254}_{-326}$ | $4.5 \pm 0.10$ | | | | | $0.624^{+0.150}_{-0.120}$ | $0.111^{+0.073}_{-0.045}$ | | | |

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|---|---|---|---|---|---|---|---|---|---|---|---|
| GaiaDR3481527901313019737 6 | $60520^{+14480}_{-9519}$ | $6.60 \pm 0.15$ | | -12.178$^{+0.042}_{-0.062}$ | 0.018 | $0.89 \pm 0.14$ | $0.017^{+0.002}_{-0.002}$ | $3.339^{+4.555}_{-1.799}$ | WD | 0.000 | $5.95^{+36.75}_{-5.06}$ |
| | $4155^{+4845}_{-1854}$ | $4.5 \pm 0.10$ | | | | | $0.054^{+0.057}_{-0.028}$ | $0.001^{+0.020}_{-0.001}$ | | | |
| GaiaDR3528128382803864499 2 | $61108^{+13891}_{-10108}$ | $6.60 \pm 0.15$ | | -12.070$^{+0.090}_{-0.097}$ | 0.143 | $1.35 \pm 0.15$ | $0.014^{+0.003}_{-0.003}$ | $2.495^{+3.580}_{-1.466}$ | WD | 0.666 | $900.00^{+0.00}_{-498.04}$ |
| | $2906^{+650}_{-440}$ | $4.5 \pm 0.10$ | | | | | $0.377^{+0.109}_{-0.109}$ | $0.009^{+0.014}_{-0.006}$ | | | |
| GaiaDR3483027391648858124 8 | $61730^{+13269}_{-10730}$ | $5.89 \pm 0.15$ | $6.22^{+0.17}_{-0.13}$ | -11.856$^{+0.042}_{-0.041}$ | $0.011^{+0.015}_{-0.011}$ | $0.35 \pm 0.06$ | $0.088^{+0.017}_{-0.013}$ | $103.896^{+135.674}_{-59.794}$ | sdO | 0.026 | $14.42^{+9.67}_{-10.22}$ |
| | $2300^{+894}_{-0}$ | $4.5 \pm 0.10$ | | | | | $0.340^{+0.121}_{-0.120}$ | $0.004^{+0.008}_{-0.003}$ | | | |
| GaiaDR3480339896608747788 8 | $63850^{+11150}_{-12849}$ | $6.10 \pm 0.15$ | $6.23^{+0.24}_{-0.16}$ | -11.976$^{+0.065}_{-0.045}$ | 0.049 | $0.28 \pm 0.04$ | $0.087^{+0.023}_{-0.016}$ | $110.464^{+140.813}_{-68.494}$ | sdO | 0.011 | $214.84^{+47.31}_{-52.89}$ |
| | $5700^{+68}_{-83}$ | $4.5 \pm 0.10$ | | | | | $1.255^{+0.380}_{-0.277}$ | $1.492^{+1.044}_{-0.588}$ | | | |
| GaiaDR3486685157596787814 4 | $64450^{+10549}_{-13450}$ | $6.60 \pm 0.15$ | | -12.061$^{+0.072}_{-0.047}$ | 0.017 | $0.92 \pm 0.11$ | $0.021^{+0.004}_{-0.003}$ | $6.818^{+7.016}_{-4.176}$ | WD | 0.354 | $900.00^{+0.00}_{-434.45}$ |
| | $2300^{+269}_{-0}$ | $4.5 \pm 0.10$ | | | | | $0.585^{+0.121}_{-0.132}$ | $0.010^{+0.006}_{-0.004}$ | | | |
| GaiaDR3549520119826777369 6 | $67000^{+8000}_{-15999}$ | $6.06 \pm 0.15$ | $6.38^{+0.23}_{-0.15}$ | -11.961$^{+0.084}_{-0.045}$ | 0.118 | $0.34 \pm 0.06$ | $0.074^{+0.019}_{-0.013}$ | $90.062^{+94.643}_{-58.829}$ | sdO | 0.054 | $88.59^{+21.14}_{-29.71}$ |
| | $5843^{+285}_{-301}$ | $4.5 \pm 0.10$ | | | | | $0.677^{+0.205}_{-0.159}$ | $0.477^{+0.365}_{-0.210}$ | | | |
| GaiaDR3289972198420655040 0 | $67110^{+7889}_{-7596}$ | $6.60 \pm 0.15$ | | -12.251$^{+0.030}_{-0.037}$ | $0.000^{+0.020}_{-0.000}$ | $0.85 \pm 0.16$ | $0.015^{+0.001}_{-0.001}$ | $3.872^{+2.416}_{-1.571}$ | WD | 0.005 | $7.57^{+138.84}_{-5.37}$ |
| | $4560^{+4367}_{-2259}$ | $4.5 \pm 0.10$ | | | | | $0.067^{+0.114}_{-0.040}$ | $0.002^{+0.040}_{-0.002}$ | | | |
| GaiaDR3550082022238376358 4 | $68386^{+6614}_{-17385}$ | $6.13 \pm 0.15$ | $5.62^{+0.21}_{-0.15}$ | -11.632$^{+0.069}_{-0.024}$ | 0.081 | $0.30 \pm 0.05$ | $0.177^{+0.043}_{-0.030}$ | $546.749^{+513.347}_{-364.496}$ | sdO | 0.040 | $46.28^{+13.35}_{-29.50}$ |
| | $2300^{+1049}_{-0}$ | $4.5 \pm 0.10$ | | | | | $1.160^{+0.368}_{-0.362}$ | $0.049^{+0.113}_{-0.028}$ | | | |
| GaiaDR3530149481026062323 2 | $73189^{+1811}_{-22188}$ | $6.23 \pm 0.15$ | $6.61^{+0.30}_{-0.17}$ | -12.089$^{+0.128}_{-0.045}$ | 0.184 | $0.34 \pm 0.07$ | $0.056^{+0.019}_{-0.011}$ | $62.255^{+62.429}_{-43.676}$ | sdO | 0.081 | $110.41^{+24.58}_{-49.78}$ |
| | $7000^{+457}_{-492}$ | $4.5 \pm 0.10$ | | | | | $0.565^{+0.215}_{-0.155}$ | $0.682^{+0.690}_{-0.349}$ | | | |
| PN-Lo3 | $74351^{+24648}_{-3351}$ | $6.40 \pm 0.15$ | $6.64^{+0.24}_{-0.17}$ | -11.950$^{+0.099}_{-0.080}$ | $0.000^{+0.126}_{-0.000}$ | $0.47 \pm 0.07$ | $0.054^{+0.015}_{-0.011}$ | $104.684^{+176.659}_{-50.784}$ | sdO | 0.000 | $105.22^{+46.38}_{-41.35}$ |
| | $5506^{+195}_{-123}$ | $4.5 \pm 0.10$ | | | | | $0.549^{+0.198}_{-0.155}$ | $0.255^{+0.222}_{-0.125}$ | | | |
| GaiaDR3526821970575294028 8 | $78997^{+20003}_{-7996}$ | $6.37 \pm 0.15$ | $7.12^{+0.26}_{-0.23}$ | -12.165$^{+0.098}_{-0.133}$ | 0.139 | $0.48 \pm 0.09$ | $0.031^{+0.009}_{-0.008}$ | $37.862^{+57.652}_{-21.282}$ | sdO | 0.306 | $66.96^{+78.26}_{-30.43}$ |
| | $7000^{+0}_{-997}$ | $4.5 \pm 0.10$ | | | | | $0.262^{+0.141}_{-0.097}$ | $0.118^{+0.178}_{-0.075}$ | | | |
| GaiaDR3292697434627862528 0 | $79000^{+20000}_{-7999}$ | $7.00 \pm 0.15$ | | -12.332$^{+0.219}_{-0.104}$ | $0.000^{+0.153}_{-0.000}$ | $0.37 \pm 0.07$ | $0.030^{+0.019}_{-0.008}$ | $38.269^{+82.577}_{-23.423}$ | WD | 0.098 | $365.06^{+214.95}_{-246.77}$ |
| | $6825^{+750}_{-242}$ | $4.5 \pm 0.10$ | | | | | $0.565^{+0.388}_{-0.221}$ | $0.692^{+1.362}_{-0.446}$ | | | |

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|---|---|---|---|---|---|---|---|---|---|---|---|
| GaiaDR35494547955217871360 | $81574^{+17426}_{-10573}$ | $6.39 \pm 0.15$ | $6.24^{+0.16}_{-0.14}$ | $-11.809^{+0.031}_{-0.070}$ | $0.040^{+0.018}_{-0.039}$ | $0.39 \pm 0.04$ | $0.086^{+0.016}_{-0.014}$ | $306.594^{+372.964}_{-155.992}$ | sdO | 0.000 | $7.18^{+28.32}_{-6.33}$ |
| | $3200^{+5800}_{-899}$ | $4.5 \pm 0.10$ | | | | | $0.289^{+0.248}_{-0.141}$ | $0.014^{+0.517}_{-0.013}$ | | | |
| GaiaDR35315950875607819136 | $95493^{+3507}_{-24492}$ | $7.00 \pm 0.15$ | | $-12.231^{+0.122}_{-0.087}$ | $0.196^{+0.107}_{-0.126}$ | $1.04 \pm 0.16$ | $0.013^{+0.004}_{-0.002}$ | $9.699^{+9.197}_{-6.240}$ | WD | 0.350 | $900.00^{+0.00}_{-559.28}$ |
| | $2300^{+612}_{-0}$ | $4.5 \pm 0.10$ | | | | | $0.345^{+0.121}_{-0.100}$ | $0.004^{+0.006}_{-0.002}$ | | | |
| GaiaDR34681207760695317504 | $103446^{+11554}_{-28445}$ | $7.00 \pm 0.15$ | | $-12.127^{+0.088}_{-0.048}$ | 0.028 | $0.65 \pm 0.08$ | $0.026^{+0.006}_{-0.004}$ | $64.392^{+59.713}_{-45.243}$ | WD | 0.339 | $794.26^{+105.74}_{-418.00}$ |
| | $2300^{+408}_{-0}$ | $4.5 \pm 0.10$ | | | | | $0.698^{+0.182}_{-0.183}$ | $0.015^{+0.013}_{-0.007}$ | | | |
| GaiaDR35298141192427581312 | $107000^{+8000}_{-31999}$ | $7.00 \pm 0.15$ | | $-12.218^{+0.113}_{-0.114}$ | $0.073^{+0.058}_{-0.073}$ | $0.76 \pm 0.13$ | $0.018^{+0.005}_{-0.004}$ | $28.869^{+34.152}_{-20.996}$ | WD | 0.005 | $26.41^{+203.07}_{-17.22}$ |
| | $4674^{+2776}_{-2374}$ | $4.5 \pm 0.10$ | | | | | $0.119^{+0.161}_{-0.062}$ | $0.006^{+0.064}_{-0.006}$ | | | |
| GaiaDR355577008952183609728 | $115000^{+0}_{-40000}$ | $6.60 \pm 0.15$ | $6.51^{+0.73}_{-0.20}$ | $-12.077^{+0.303}_{-0.037}$ | $0.026^{+0.237}_{-0.026}$ | $0.33 \pm 0.04$ | $0.063^{+0.053}_{-0.014}$ | $443.339^{+996.755}_{-325.320}$ | sdO | 0.000 | $175.25^{+32.43}_{-138.21}$ |
| | $6253^{+309}_{-206}$ | $4.5 \pm 0.10$ | | | | | $0.792^{+0.646}_{-0.257}$ | $0.892^{+2.049}_{-0.499}$ | | | |
| GaiaDR35275723112401953408 | $115000^{+0}_{-40000}$ | $7.00 \pm 0.15$ | | $-12.287^{+0.097}_{-0.011}$ | $0.115^{+0.012}_{-0.038}$ | $0.82 \pm 0.16$ | $0.015^{+0.003}_{-0.001}$ | $27.693^{+13.474}_{-21.304}$ | WD | 0.072 | $727.38^{+172.62}_{-362.88}$ |
| | $2300^{+197}_{-0}$ | $4.5 \pm 0.10$ | | | | | $0.391^{+0.091}_{-0.101}$ | $0.004^{+0.003}_{-0.002}$ | | | |
| GaiaDR35494015276196800000 | $115000^{+0}_{-40000}$ | $6.60 \pm 0.15$ | $6.41^{+0.33}_{-0.22}$ | $-11.974^{+0.125}_{-0.104}$ | $0.264^{+0.046}_{-0.098}$ | $0.34 \pm 0.07$ | $0.071^{+0.027}_{-0.018}$ | $526.524^{+653.505}_{-397.521}$ | sdO | 0.000 | $11.06^{+19.36}_{-7.36}$ |
| | $6743^{+1140}_{-1943}$ | $4.5 \pm 0.10$ | | | | | $0.258^{+0.175}_{-0.112}$ | $0.099^{+0.287}_{-0.081}$ | | | |
| GaiaDR35518266753197554560 | $115000^{+0}_{-40000}$ | $6.60 \pm 0.15$ | $7.09^{+0.45}_{-0.16}$ | $-12.270^{+0.210}_{-0.024}$ | $0.000^{+0.142}_{-0.000}$ | $0.40 \pm 0.07$ | $0.032^{+0.017}_{-0.006}$ | $121.180^{+156.246}_{-89.947}$ | sdO | 0.194 | $876.41^{+23.59}_{-551.79}$ |
| | $4427^{+231}_{-243}$ | $4.5 \pm 0.10$ | | | | | $0.880^{+0.450}_{-0.236}$ | $0.269^{+0.352}_{-0.135}$ | | | |
| GaiaDR35530603896435484160 | $115000^{+0}_{-40000}$ | $7.00 \pm 0.15$ | | $-12.453^{+0.309}_{-0.020}$ | $0.000^{+0.167}_{-0.000}$ | $0.45 \pm 0.06$ | $0.019^{+0.016}_{-0.003}$ | $43.641^{+92.063}_{-31.915}$ | WD | 0.011 | $481.02^{+37.27}_{-376.67}$ |
| | $6938^{+779}_{-161}$ | $4.5 \pm 0.10$ | | | | | $0.395^{+0.318}_{-0.112}$ | $0.377^{+0.864}_{-0.196}$ | | | |
| Parallax error $\leq 10\,\%$ | | | | | | | | | | | |
| GaiaDR35498464037679147008 | $10402^{+1573}_{-1378}$ | $3.38 \pm 0.22$ | $5.24^{+0.31}_{-0.20}$ | $-11.211^{+0.132}_{-0.100}$ | $0.000^{+0.019}_{-0.000}$ | $0.51 \pm 0.03$ | $0.271^{+0.098}_{-0.062}$ | $0.793^{+0.990}_{-0.436}$ | BHB | 0.081 | $3.79^{+3.00}_{-2.18}$ |
| | $7000^{+0}_{-112}$ | $4.5 \pm 0.10$ | | | | | $0.536^{+0.269}_{-0.198}$ | $0.606^{+0.761}_{-0.365}$ | | | |
| GaiaDR35558461157392946560 | $11924^{+2536}_{-1561}$ | $3.85 \pm 0.23$ | $5.50^{+0.20}_{-0.18}$ | $-11.216^{+0.079}_{-0.099}$ | 0.100 | $0.67 \pm 0.04$ | $0.201^{+0.045}_{-0.042}$ | $0.761^{+0.975}_{-0.410}$ | BHB | 0.288 | $15.93^{+24.83}_{-7.60}$ |
| | $3000^{+931}_{-699}$ | $4.5 \pm 0.10$ | | | | | $0.845^{+0.481}_{-0.304}$ | $0.053^{+0.152}_{-0.041}$ | | | |

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|---|---|---|---|---|---|---|---|---|---|---|---|
| NOVAPup2007b | $12573^{+7195}_{-2184}$ | $4.36 \pm 0.23$ | $4.95^{+0.24}_{-0.20}$ | $-11.035^{+0.093}_{-0.111}$ | $0.000^{+0.164}_{-0.000}$ | $0.54 \pm 0.03$ | $0.378^{+0.102}_{-0.088}$ | $3.819^{+16.570}_{-2.562}$ | BHB | 0.477 | $16.75^{+19.83}_{-12.52}$ |
| | $2300^{+1010}_{-0}$ | $4.5 \pm 0.10$ | | | | | $1.615^{+0.858}_{-0.663}$ | $0.103^{+0.248}_{-0.072}$ | | | |
| GaiaDR35511191365810066176 | $19631^{+368}_{-2523}$ | $4.94 \pm 0.21$ | $5.00^{+0.14}_{-0.10}$ | $-11.132^{+0.053}_{-0.019}$ | 0.225 | $0.47 \pm 0.03$ | $0.357^{+0.057}_{-0.042}$ | $15.142^{+6.574}_{-5.789}$ | BHB | 0.174 | $15.15^{+14.31}_{-6.62}$ |
| | $2700^{+534}_{-399}$ | $4.5 \pm 0.10$ | | | | | $1.441^{+0.560}_{-0.413}$ | $0.101^{+0.158}_{-0.064}$ | | | |
| GaiaDR35562877345845646592 | $21345^{+1468}_{-732}$ | $5.12 \pm 0.21$ | $5.60^{+0.09}_{-0.08}$ | $-11.321^{+0.016}_{-0.023}$ | $0.000^{+0.029}_{-0.000}$ | $0.59 \pm 0.03$ | $0.180^{+0.019}_{-0.016}$ | $6.267^{+2.194}_{-1.449}$ | sdB | 0.034 | $21.98^{+4.67}_{-8.53}$ |
| | $2300^{+460}_{-0}$ | $4.5 \pm 0.10$ | | | | | $0.823^{+0.139}_{-0.175}$ | $0.021^{+0.016}_{-0.008}$ | | | |
| GaiaDR35549462376272389632 | $22591^{+1936}_{-1802}$ | $5.00 \pm 0.21$ | $5.27^{+0.13}_{-0.11}$ | $-11.336^{+0.017}_{-0.020}$ | $0.063^{+0.025}_{-0.026}$ | $0.39 \pm 0.03$ | $0.263^{+0.041}_{-0.032}$ | $16.405^{+8.872}_{-5.712}$ | sdB | 0.030 | $11.24^{+2.67}_{-3.93}$ |
| | $2300^{+289}_{-0}$ | $4.5 \pm 0.10$ | | | | | $0.864^{+0.184}_{-0.180}$ | $0.022^{+0.014}_{-0.009}$ | | | |
| GaiaDR32924551744199992832 | $23259^{+1897}_{-1793}$ | $5.25 \pm 0.20$ | $5.34^{+0.09}_{-0.08}$ | $-11.192^{+0.019}_{-0.021}$ | $0.026^{+0.019}_{-0.020}$ | $0.59 \pm 0.03$ | $0.241^{+0.025}_{-0.022}$ | $15.429^{+6.858}_{-4.828}$ | sdB | 0.009 | $9.63^{+1.82}_{-3.91}$ |
| | $2300^{+439}_{-0}$ | $4.5 \pm 0.10$ | | | | | $0.729^{+0.120}_{-0.159}$ | $0.016^{+0.012}_{-0.006}$ | | | |
| GaiaDR35285400193412971264 | $23415^{+2412}_{-1745}$ | $5.48 \pm 0.18$ | $5.57^{+0.10}_{-0.08}$ | $-11.346^{+0.017}_{-0.023}$ | $0.022^{+0.031}_{-0.022}$ | $0.53 \pm 0.03$ | $0.186^{+0.021}_{-0.018}$ | $9.638^{+5.119}_{-3.131}$ | sdB | 0.031 | $3.13^{+3.98}_{-1.92}$ |
| | $2900^{+1700}_{-599}$ | $4.5 \pm 0.10$ | | | | | $0.347^{+0.161}_{-0.121}$ | $0.009^{+0.044}_{-0.007}$ | | | |
| GaiaDR35610727198536681600 | $24091^{+30908}_{-5836}$ | $5.36 \pm 0.19$ | $5.60^{+0.26}_{-0.37}$ | $-11.344^{+0.087}_{-0.255}$ | $0.031^{+0.195}_{-0.031}$ | $0.54 \pm 0.04$ | $0.180^{+0.053}_{-0.077}$ | $11.587^{+220.565}_{-9.616}$ | sdB | 0.296 | $18.51^{+90.17}_{-10.42}$ |
| | $2700^{+754}_{-399}$ | $4.5 \pm 0.10$ | | | | | $0.845^{+1.048}_{-0.435}$ | $0.040^{+0.178}_{-0.033}$ | | | |
| EC03572-5455 | $24411^{+30589}_{-5738}$ | $5.33 \pm 0.19$ | $5.64^{+0.47}_{-0.51}$ | $-11.519^{+0.157}_{-0.396}$ | 0.018 | $0.38 \pm 0.04$ | $0.171^{+0.092}_{-0.100}$ | $11.842^{+207.675}_{-10.499}$ | sdB | 0.120 | $11.74^{+62.76}_{-6.32}$ |
| | $6835^{+943}_{-920}$ | $4.5 \pm 0.10$ | | | | | $0.648^{+0.952}_{-0.399}$ | $0.807^{+4.316}_{-0.699}$ | | | |
| EC05012-5641 | $24659^{+4292}_{-1516}$ | $5.33 \pm 0.19$ | $5.25^{+0.13}_{-0.11}$ | $-11.269^{+0.025}_{-0.042}$ | $0.003^{+0.049}_{-0.003}$ | $0.44 \pm 0.03$ | $0.269^{+0.040}_{-0.034}$ | $26.437^{+22.288}_{-9.575}$ | sdB | 0.120 | $58.02^{+14.60}_{-15.94}$ |
| | $2300^{+225}_{-0}$ | $4.5 \pm 0.10$ | | | | | $2.028^{+0.415}_{-0.378}$ | $0.118^{+0.066}_{-0.042}$ | | | |
| GaiaDR35314924691966924160 | $25228^{+6194}_{-4509}$ | $5.41 \pm 0.19$ | $5.46^{+0.14}_{-0.13}$ | $-11.348^{+0.041}_{-0.058}$ | $0.095^{+0.063}_{-0.071}$ | $0.47 \pm 0.04$ | $0.212^{+0.035}_{-0.031}$ | $16.730^{+24.531}_{-9.801}$ | sdB | 0.071 | $12.72^{+4.98}_{-7.92}$ |
| | $2300^{+922}_{-0}$ | $4.5 \pm 0.10$ | | | | | $0.739^{+0.208}_{-0.235}$ | $0.019^{+0.035}_{-0.011}$ | | | |
| GaiaDR35561959597233757056 | $25966^{+4408}_{-1965}$ | $5.40 \pm 0.19$ | $5.40^{+0.21}_{-0.14}$ | $-11.317^{+0.092}_{-0.048}$ | $0.009^{+0.148}_{-0.009}$ | $0.48 \pm 0.03$ | $0.227^{+0.055}_{-0.036}$ | $23.560^{+22.525}_{-10.068}$ | sdB | 0.018 | $13.41^{+3.42}_{-5.38}$ |
| | $5483^{+205}_{-677}$ | $4.5 \pm 0.10$ | | | | | $0.810^{+0.235}_{-0.199}$ | $0.468^{+0.382}_{-0.242}$ | | | |
| GaiaDR35498758363198539520 | $26100^{+3959}_{-2341}$ | $5.49 \pm 0.18$ | $5.59^{+0.18}_{-0.13}$ | $-11.390^{+0.073}_{-0.053}$ | $0.000^{+0.096}_{-0.000}$ | $0.50 \pm 0.03$ | $0.183^{+0.038}_{-0.028}$ | $14.900^{+12.886}_{-6.360}$ | sdB | 0.000 | $16.96^{+4.68}_{-5.52}$ |
| | $5496^{+139}_{-216}$ | $4.5 \pm 0.10$ | | | | | $0.742^{+0.193}_{-0.164}$ | $0.441^{+0.273}_{-0.178}$ | | | |

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|---|---|---|---|---|---|---|---|---|---|---|---|
| GaiaDR3472879823601364096 0 | $26204^{+3702}_{-2882}$<br>$3000^{+378}_{-320}$ | $5.47 \pm 0.18$<br>$4.5 \pm 0.10$ | $5.39^{+0.20}_{-0.16}$ | -11.417$^{+0.062}_{-0.074}$ | 0.035 | $0.37 \pm 0.04$ | $0.230^{+0.053}_{-0.043}$<br>$2.264^{+0.695}_{-0.555}$ | $22.895^{+21.115}_{-10.915}$<br>$0.375^{+0.389}_{-0.195}$ | sdB | 0.253 | $96.84^{+40.25}_{-28.66}$ |
| GaiaDR3558380414449969625 6 | $26215^{+2425}_{-1841}$<br>$4572^{+303}_{-1051}$ | $5.46 \pm 0.18$<br>$4.5 \pm 0.10$ | $5.39^{+0.13}_{-0.11}$ | -11.357$^{+0.027}_{-0.029}$ | $0.016^{+0.057}_{-0.016}$ | $0.43 \pm 0.03$ | $0.229^{+0.034}_{-0.028}$<br>$0.621^{+0.101}_{-0.083}$ | $22.771^{+12.317}_{-7.656}$<br>$0.134^{+0.087}_{-0.083}$ | sdB | 0.000 | $7.36^{+0.95}_{-0.80}$ |
| GaiaDR3557052482717306265 6 | $26656^{+2055}_{-1727}$<br>$4726^{+165}_{-172}$ | $5.51 \pm 0.18$<br>$4.5 \pm 0.10$ | $5.55^{+0.11}_{-0.09}$ | -11.293$^{+0.033}_{-0.036}$ | 0.078 | $0.59 \pm 0.04$ | $0.191^{+0.024}_{-0.021}$<br>$0.709^{+0.107}_{-0.093}$ | $16.807^{+7.530}_{-5.125}$<br>$0.225^{+0.084}_{-0.061}$ | sdB | 0.013 | $13.67^{+2.41}_{-1.90}$ |
| EC05168-3509 | $27473^{+3494}_{-2988}$<br>$2300^{+803}_{-0}$ | $5.57 \pm 0.18$<br>$4.5 \pm 0.10$ | $5.77^{+0.14}_{-0.13}$ | -11.364$^{+0.054}_{-0.061}$ | 0.053 | $0.65 \pm 0.04$ | $0.148^{+0.024}_{-0.021}$<br>$1.045^{+0.314}_{-0.336}$ | $11.244^{+8.381}_{-4.855}$<br>$0.038^{+0.060}_{-0.022}$ | sdB | 0.322 | $50.98^{+25.59}_{-30.81}$ |
| EC04349-5624 | $28251^{+1853}_{-1459}$<br>$5050^{+176}_{-162}$ | $5.61 \pm 0.17$<br>$4.5 \pm 0.10$ | $5.67^{+0.11}_{-0.09}$ | -11.407$^{+0.026}_{-0.031}$ | 0.012 | $0.52 \pm 0.04$ | $0.166^{+0.021}_{-0.018}$<br>$0.558^{+0.082}_{-0.070}$ | $16.107^{+6.453}_{-4.457}$<br>$0.183^{+0.065}_{-0.047}$ | sdB | 0.025 | $11.20^{+1.71}_{-1.33}$ |
| GaiaDR3480512928385523532 8 | $29374^{+5406}_{-1702}$<br>$5157^{+180}_{-114}$ | $5.72 \pm 0.16$<br>$4.5 \pm 0.10$ | $5.35^{+0.19}_{-0.14}$ | -11.487$^{+0.035}_{-0.041}$ | $0.000^{+0.059}_{-0.000}$ | $0.30 \pm 0.03$ | $0.239^{+0.053}_{-0.039}$<br>$1.795^{+0.425}_{-0.318}$ | $43.512^{+41.892}_{-17.870}$<br>$2.094^{+1.160}_{-0.701}$ | sdB | 0.042 | $56.14^{+9.45}_{-7.63}$ |
| GaiaDR3555776471542608692 48 | $29447^{+2322}_{-2583}$<br>$2962^{+6037}_{-662}$ | $5.78 \pm 0.16$<br>$4.5 \pm 0.10$ | $5.93^{+0.10}_{-0.08}$ | -11.533$^{+0.017}_{-0.018}$ | $0.125^{+0.023}_{-0.037}$ | $0.53 \pm 0.05$ | $0.123^{+0.014}_{-0.012}$<br>$0.409^{+0.361}_{-0.222}$ | $10.108^{+4.644}_{-3.403}$<br>$0.023^{+0.960}_{-0.021}$ | sdB | 0.000 | $5.22^{+30.32}_{-5.22}$ |
| GaiaDR3529174616221185868 8 | $29715^{+15201}_{-5995}$<br>$6200^{+850}_{-789}$ | $5.70 \pm 0.17$<br>$4.5 \pm 0.10$ | $5.43^{+0.34}_{-0.32}$ | -11.305$^{+0.127}_{-0.204}$ | 0.138 | $0.50 \pm 0.03$ | $0.219^{+0.085}_{-0.081}$<br>$0.889^{+0.606}_{-0.388}$ | $37.284^{+149.940}_{-28.132}$<br>$1.027^{+2.262}_{-0.738}$ | sdB | 0.081 | $15.46^{+22.94}_{-6.81}$ |
| GaiaDR3531428305821062976 0 | $30049^{+8936}_{-4887}$<br>$2400^{+3586}_{-99}$ | $5.56 \pm 0.18$<br>$4.5 \pm 0.10$ | $5.75^{+0.17}_{-0.21}$ | -11.456$^{+0.045}_{-0.126}$ | $0.148^{+0.060}_{-0.061}$ | $0.50 \pm 0.04$ | $0.151^{+0.029}_{-0.036}$<br>$0.785^{+0.310}_{-0.306}$ | $16.944^{+31.312}_{-10.284}$<br>$0.034^{+0.637}_{-0.024}$ | sdOB | 0.053 | $28.02^{+18.22}_{-22.22}$ |
| GaiaDR3555824506899896422 4 | $30695^{+15990}_{-7893}$<br>$3042^{+1085}_{-741}$ | $5.74 \pm 0.16$<br>$4.5 \pm 0.10$ | $5.51^{+0.37}_{-0.30}$ | -11.424$^{+0.141}_{-0.185}$ | 0.095 | $0.42 \pm 0.04$ | $0.199^{+0.086}_{-0.069}$<br>$1.910^{+1.280}_{-0.818}$ | $34.372^{+152.704}_{-27.390}$<br>$0.286^{+1.059}_{-0.231}$ | sdOB | 0.286 | $86.38^{+113.31}_{-39.43}$ |
| GaiaDR3289452988844045120 0 | $31107^{+4554}_{-2505}$<br>$5800^{+180}_{-150}$ | $5.72 \pm 0.16$<br>$4.5 \pm 0.10$ | $5.81^{+0.13}_{-0.11}$ | -11.553$^{+0.023}_{-0.036}$ | $0.052^{+0.039}_{-0.035}$ | $0.44 \pm 0.04$ | $0.141^{+0.021}_{-0.017}$<br>$0.957^{+0.153}_{-0.127}$ | $17.626^{+13.275}_{-6.662}$<br>$0.940^{+0.351}_{-0.248}$ | sdOB | 0.002 | $45.57^{+6.26}_{-4.18}$ |
| EC04566-5006 | $31416^{+1920}_{-1504}$<br>$6086^{+61}_{-59}$ | $5.79 \pm 0.15$<br>$4.5 \pm 0.10$ | $5.75^{+0.16}_{-0.13}$ | -11.624$^{+0.030}_{-0.035}$ | 0.011 | $0.35 \pm 0.03$ | $0.152^{+0.028}_{-0.022}$<br>$1.315^{+0.266}_{-0.207}$ | $20.506^{+10.281}_{-6.484}$<br>$2.140^{+0.959}_{-0.624}$ | sdOB | 0.000 | $74.55^{+12.12}_{-8.84}$ |

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|---|---|---|---|---|---|---|---|---|---|---|---|
| GaiaDR32903432359211424896 | $32683^{+20314}_{-3928}$ | $5.92 \pm 0.14$ | $6.13^{+0.18}_{-0.23}$ | $-11.589^{+0.060}_{-0.137}$ | $0.000^{+0.089}_{-0.000}$ | $0.57 \pm 0.05$ | $0.098^{+0.020}_{-0.025}$ | $11.530^{+53.840}_{-6.963}$ | sdOB | 0.298 | $439.55^{+443.17}_{-161.01}$ |
| | $2300^{+241}_{-0}$ | $4.5 \pm 0.10$ | | | | | $2.065^{+0.928}_{-0.676}$ | $0.125^{+0.146}_{-0.070}$ | | | |
| GaiaDR35294228412791682048 | $32937^{+6590}_{-5899}$ | $5.85 \pm 0.15$ | $6.03^{+0.13}_{-0.12}$ | $-11.428^{+0.051}_{-0.059}$ | $0.166^{+0.095}_{-0.145}$ | $0.75 \pm 0.04$ | $0.110^{+0.016}_{-0.015}$ | $12.726^{+14.946}_{-7.278}$ | sdOB | 0.009 | $41.05^{+13.23}_{-8.19}$ |
| | $4617^{+150}_{-209}$ | $4.5 \pm 0.10$ | | | | | $0.708^{+0.147}_{-0.124}$ | $0.201^{+0.101}_{-0.069}$ | | | |
| GaiaDR35486388170189876480 | $33084^{+15689}_{-5724}$ | $5.83 \pm 0.15$ | $5.99^{+0.24}_{-0.23}$ | $-11.554^{+0.091}_{-0.137}$ | $0.000^{+0.154}_{-0.000}$ | $0.53 \pm 0.04$ | $0.115^{+0.032}_{-0.031}$ | $15.956^{+53.313}_{-10.725}$ | sdOB | 0.081 | $153.12^{+746.87}_{-96.17}$ |
| | $3178^{+826}_{-877}$ | $4.5 \pm 0.10$ | | | | | $1.676^{+1.875}_{-0.808}$ | $0.241^{+1.144}_{-0.204}$ | | | |
| GaiaDR35578287684206592512 | $33925^{+6104}_{-4804}$ | $5.86 \pm 0.18$ | $5.97^{+0.13}_{-0.11}$ | $-11.479^{+0.045}_{-0.052}$ | $0.262^{+0.019}_{-0.034}$ | $0.62 \pm 0.04$ | $0.118^{+0.017}_{-0.015}$ | $16.792^{+16.947}_{-8.385}$ | sdOB | 0.010 | $29.09^{+15.20}_{-13.59}$ |
| | $2400^{+544}_{-100}$ | $4.5 \pm 0.10$ | | | | | $0.633^{+0.182}_{-0.177}$ | $0.014^{+0.017}_{-0.007}$ | | | |
| EC05043-4538 | $35211^{+5263}_{-4219}$ | $5.80 \pm 0.15$ | $6.00^{+0.14}_{-0.11}$ | $-11.648^{+0.037}_{-0.038}$ | $0.026^{+0.029}_{-0.026}$ | $0.44 \pm 0.04$ | $0.114^{+0.018}_{-0.015}$ | $18.310^{+15.452}_{-8.292}$ | sdOB | 0.030 | $37.79^{+6.83}_{-5.32}$ |
| | $5136^{+117}_{-127}$ | $4.5 \pm 0.10$ | | | | | $0.702^{+0.128}_{-0.105}$ | $0.308^{+0.128}_{-0.088}$ | | | |
| GaiaDR35301497078011592320 | $35570^{+7681}_{-5152}$ | $5.39 \pm 0.15$ | $6.02^{+0.13}_{-0.12}$ | $-11.537^{+0.046}_{-0.055}$ | $0.115^{+0.015}_{-0.028}$ | $0.58 \pm 0.04$ | $0.111^{+0.017}_{-0.015}$ | $18.393^{+22.422}_{-9.524}$ | sdOB | 0.018 | $3.01^{+6.05}_{-2.57}$ |
| | $2700^{+2898}_{-399}$ | $4.5 \pm 0.10$ | | | | | $0.219^{+0.130}_{-0.093}$ | $0.004^{+0.041}_{-0.003}$ | | | |
| GaiaDR35482785311104898816 | $35698^{+3268}_{-2720}$ | $5.43 \pm 0.15$ | $5.98^{+0.11}_{-0.10}$ | $-11.534^{+0.035}_{-0.033}$ | $0.000^{+0.019}_{-0.000}$ | $0.56 \pm 0.03$ | $0.117^{+0.015}_{-0.013}$ | $20.143^{+10.358}_{-6.715}$ | sdOB | 0.002 | $45.91^{+7.37}_{-6.48}$ |
| | $4623^{+66}_{-78}$ | $4.5 \pm 0.10$ | | | | | $0.790^{+0.121}_{-0.103}$ | $0.256^{+0.086}_{-0.064}$ | | | |
| GaiaDR35486161567717719680 | $35867^{+4761}_{-4667}$ | $5.46 \pm 0.15$ | $6.01^{+0.10}_{-0.08}$ | $-11.518^{+0.041}_{-0.003}$ | $0.162^{+0.010}_{-0.024}$ | $0.62 \pm 0.05$ | $0.112^{+0.013}_{-0.010}$ | $18.953^{+13.544}_{-8.436}$ | sdOB | 0.011 | $35.58^{+10.28}_{-13.25}$ |
| | $2300^{+290}_{-0}$ | $4.5 \pm 0.10$ | | | | | $0.663^{+0.125}_{-0.140}$ | $0.013^{+0.008}_{-0.005}$ | | | |
| EC04508-6115 | $35999^{+2910}_{-2365}$ | $5.89 \pm 0.14$ | $5.87^{+0.13}_{-0.10}$ | $-11.577^{+0.030}_{-0.028}$ | $0.000^{+0.028}_{-0.000}$ | $0.45 \pm 0.03$ | $0.132^{+0.019}_{-0.016}$ | $26.669^{+13.135}_{-8.522}$ | sdOB | 0.016 | $21.28^{+2.97}_{-2.71}$ |
| | $4909^{+112}_{-153}$ | $4.5 \pm 0.10$ | | | | | $0.607^{+0.099}_{-0.081}$ | $0.191^{+0.072}_{-0.051}$ | | | |
| GaiaDR35291635386417224960 | $36000^{+17523}_{-7819}$ | $5.73 \pm 0.15$ | $5.87^{+0.19}_{-0.17}$ | $-11.512^{+0.070}_{-0.090}$ | $0.202^{+0.032}_{-0.059}$ | $0.52 \pm 0.04$ | $0.131^{+0.029}_{-0.026}$ | $28.575^{+102.808}_{-19.819}$ | sdOB | 0.064 | $14.16^{+8.35}_{-9.40}$ |
| | $2300^{+932}_{-0}$ | $4.5 \pm 0.10$ | | | | | $0.489^{+0.183}_{-0.173}$ | $0.009^{+0.017}_{-0.005}$ | | | |
| GaiaDR35486140264679806976 | $36046^{+5743}_{-6367}$ | $5.61 \pm 0.15$ | $5.75^{+0.18}_{-0.21}$ | $-11.518^{+0.038}_{-0.135}$ | $0.151^{+0.014}_{-0.151}$ | $0.42 \pm 0.04$ | $0.152^{+0.031}_{-0.037}$ | $32.033^{+36.838}_{-19.300}$ | sdOB | 0.005 | $4.95^{+10.63}_{-3.27}$ |
| | $3263^{+3736}_{-963}$ | $4.5 \pm 0.10$ | | | | | $0.360^{+0.255}_{-0.154}$ | $0.019^{+0.293}_{-0.017}$ | | | |
| GaiaDR35514099677145872768 | $36403^{+10827}_{-5791}$ | $5.50 \pm 0.15$ | $5.35^{+0.15}_{-0.12}$ | $-11.302^{+0.054}_{-0.044}$ | $0.400^{+0.010}_{-0.026}$ | $0.47 \pm 0.03$ | $0.240^{+0.042}_{-0.033}$ | $97.981^{+174.128}_{-55.086}$ | sdOB | 0.000 | $6.46^{+6.83}_{-3.14}$ |
| | $2600^{+665}_{-299}$ | $4.5 \pm 0.10$ | | | | | $0.634^{+0.272}_{-0.201}$ | $0.019^{+0.033}_{-0.012}$ | | | |

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|---|---|---|---|---|---|---|---|---|---|---|---|
| GaiaDR35505576194285665280 | $37383^{+16150}_{-9076}$ | $5.73 \pm 0.15$ | $6.63^{+0.36}_{-0.23}$ | $-11.820^{+0.147}_{-0.126}$ | 0.165 | $0.61 \pm 0.05$ | $0.055^{+0.023}_{-0.015}$ | $6.008^{+20.142}_{-4.521}$ | sdOB | 0.000 | $57.67^{+42.85}_{-27.62}$ |
| | $6220^{+293}_{-323}$ | $4.5 \pm 0.10$ | | | | | $0.423^{+0.225}_{-0.155}$ | $0.238^{+0.335}_{-0.144}$ | | | |
| GaiaDR35319733921465392896 | $38580^{+11503}_{-6427}$ | $5.40 \pm 0.15$ | $5.91^{+0.15}_{-0.15}$ | $-11.454^{+0.055}_{-0.083}$ | $0.305^{+0.028}_{-0.031}$ | $0.61 \pm 0.05$ | $0.126^{+0.022}_{-0.022}$ | $32.898^{+59.657}_{-19.336}$ | sdOB | 0.035 | $4.90^{+15.74}_{-1.63}$ |
| | $4000^{+784}_{-1699}$ | $4.5 \pm 0.10$ | | | | | $0.309^{+0.265}_{-0.099}$ | $0.019^{+0.063}_{-0.016}$ | | | |
| GaiaDR35556233031438365952 | $39164^{+13368}_{-4553}$ | $5.39 \pm 0.15$ | $5.86^{+0.16}_{-0.23}$ | $-11.486^{+0.038}_{-0.148}$ | $0.041^{+0.016}_{-0.041}$ | $0.52 \pm 0.03$ | $0.133^{+0.024}_{-0.036}$ | $39.758^{+80.214}_{-22.366}$ | sdOB | 0.000 | $4.57^{+10.84}_{-3.51}$ |
| | $3000^{+6000}_{-699}$ | $4.5 \pm 0.10$ | | | | | $0.306^{+0.229}_{-0.138}$ | $0.013^{+0.570}_{-0.012}$ | | | |
| GaiaDR35589918116346939904 | $44052^{+10947}_{-7951}$ | $5.45 \pm 0.15$ | $6.10^{+0.16}_{-0.20}$ | $-11.548^{+0.055}_{-0.120}$ | $0.141^{+0.025}_{-0.057}$ | $0.61 \pm 0.04$ | $0.101^{+0.019}_{-0.024}$ | $33.787^{+53.285}_{-20.907}$ | sdO | 0.033 | $5.25^{+12.99}_{-4.46}$ |
| | $2800^{+6200}_{-499}$ | $4.5 \pm 0.10$ | | | | | $0.260^{+0.189}_{-0.119}$ | $0.008^{+0.403}_{-0.007}$ | | | |
| GaiaDR32910787061209030912 | $46350^{+8649}_{-7108}$ | $5.50 \pm 0.15$ | $6.27^{+0.13}_{-0.11}$ | $-11.713^{+0.040}_{-0.039}$ | $0.029^{+0.011}_{-0.009}$ | $0.52 \pm 0.05$ | $0.084^{+0.012}_{-0.010}$ | $29.545^{+31.163}_{-15.339}$ | sdO | 0.003 | $34.54^{+12.39}_{-14.52}$ |
| | $2300^{+283}_{-0}$ | $4.5 \pm 0.10$ | | | | | $0.484^{+0.116}_{-0.120}$ | $0.007^{+0.005}_{-0.003}$ | | | |
| GaiaDR35314795087031449984 | $47019^{+7981}_{-21982}$ | $5.54 \pm 0.15$ | $6.08^{+0.20}_{-0.32}$ | $-11.622^{+0.057}_{-0.214}$ | $0.146^{+0.056}_{-0.140}$ | $0.49 \pm 0.04$ | $0.103^{+0.024}_{-0.038}$ | $30.233^{+65.774}_{-27.499}$ | sdO | 0.168 | $14.54^{+33.06}_{-11.99}$ |
| | $2800^{+5161}_{-499}$ | $4.5 \pm 0.10$ | | | | | $0.413^{+0.329}_{-0.203}$ | $0.019^{+0.631}_{-0.017}$ | | | |
| GaiaDR35609629782853279232 | $47301^{+7699}_{-10242}$ | $5.57 \pm 0.15$ | $5.43^{+0.21}_{-0.15}$ | $-11.496^{+0.072}_{-0.044}$ | 0.153 | $0.33 \pm 0.03$ | $0.218^{+0.053}_{-0.038}$ | $207.095^{+244.069}_{-131.277}$ | sdO | 0.023 | $20.64^{+5.83}_{-6.20}$ |
| | $7000^{+0}_{-209}$ | $4.5 \pm 0.10$ | | | | | $0.979^{+0.286}_{-0.222}$ | $1.977^{+1.337}_{-0.801}$ | | | |
| GaiaDR35287583789146970624 | $47307^{+7692}_{-12052}$ | $5.54 \pm 0.15$ | $5.39^{+0.22}_{-0.14}$ | $-11.377^{+0.094}_{-0.047}$ | 0.153 | $0.42 \pm 0.03$ | $0.229^{+0.058}_{-0.038}$ | $224.814^{+275.481}_{-154.764}$ | sdO | 0.029 | $9.26^{+2.66}_{-3.32}$ |
| | $5643^{+634}_{-539}$ | $4.5 \pm 0.10$ | | | | | $0.684^{+0.208}_{-0.164}$ | $0.429^{+0.416}_{-0.216}$ | | | |
| GaiaDR35294488206773795200 | $58057^{+16942}_{-7057}$ | $5.95 \pm 0.15$ | $5.84^{+0.14}_{-0.13}$ | $-11.516^{+0.036}_{-0.064}$ | 0.239 | $0.49 \pm 0.03$ | $0.137^{+0.022}_{-0.020}$ | $207.176^{+343.588}_{-103.789}$ | sdO | 0.000 | $51.28^{+18.87}_{-8.69}$ |
| | $5307^{+133}_{-109}$ | $4.5 \pm 0.10$ | | | | | $0.998^{+0.219}_{-0.180}$ | $0.716^{+0.360}_{-0.239}$ | | | |
| EC03372-5808 | $68585^{+6414}_{-16943}$ | $6.12 \pm 0.15$ | $6.09^{+0.16}_{-0.12}$ | $-11.745^{+0.050}_{-0.030}$ | $0.047^{+0.021}_{-0.030}$ | $0.39 \pm 0.04$ | $0.103^{+0.019}_{-0.014}$ | $190.364^{+149.371}_{-124.706}$ | sdO | 0.006 | $17.39^{+3.11}_{-3.79}$ |
| | $5264^{+373}_{-364}$ | $4.5 \pm 0.10$ | | | | | $0.424^{+0.090}_{-0.073}$ | $0.124^{+0.075}_{-0.047}$ | | | |
| GaiaDR35551357281484186496 | $68722^{+6277}_{-15805}$ | $6.16 \pm 0.15$ | $7.13^{+0.12}_{-0.08}$ | $-11.926^{+0.054}_{-0.026}$ | $0.011^{+0.017}_{-0.011}$ | $0.87 \pm 0.05$ | $0.031^{+0.004}_{-0.003}$ | $18.018^{+11.259}_{-11.330}$ | sdO | 0.008 | $120.17^{+20.26}_{-26.99}$ |
| | $3852^{+130}_{-131}$ | $4.5 \pm 0.10$ | | | | | $0.335^{+0.054}_{-0.047}$ | $0.022^{+0.009}_{-0.006}$ | | | |
| GaiaDR34798186318899393408 | $75734^{+23265}_{-4734}$ | $7.00 \pm 0.15$ | | $-11.928^{+0.017}_{-0.054}$ | $0.006^{+0.021}_{-0.006}$ | $0.97 \pm 0.06$ | $0.026^{+0.002}_{-0.003}$ | $22.271^{+37.219}_{-7.628}$ | WD | 0.026 | $32.20^{+36.77}_{-14.12}$ |
| | $2592^{+464}_{-292}$ | $4.5 \pm 0.10$ | | | | | $0.152^{+0.066}_{-0.043}$ | $0.001^{+0.001}_{-0.001}$ | | | |

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|---|---|---|---|---|---|---|---|---|---|---|---|
| GaiaDR35296778214620237440 | $86347^{+12652}_{-15347}$ | $6.46 \pm 0.15$ | $6.34^{+0.13}_{-0.11}$ | $-11.735^{+0.047}_{-0.039}$ | 0.212 | $0.54 \pm 0.05$ | $0.077^{+0.012}_{-0.009}$ | $289.521^{+257.067}_{-160.066}$ | sdO | 0.005 | $6.65^{+4.09}_{-3.23}$ |
| | $4913^{+1937}_{-1841}$ | $4.5 \pm 0.10$ | | | | | $0.200^{+0.062}_{-0.058}$ | $0.019^{+0.065}_{-0.016}$ | | | |
| GaiaDR35582784072586681600 | $99870^{+15129}_{-4687}$ | $6.61 \pm 0.15$ | $5.72^{+0.12}_{-0.10}$ | $-11.464^{+0.012}_{-0.047}$ | 0.170 | $0.48 \pm 0.03$ | $0.156^{+0.021}_{-0.019}$ | $2382.965^{+1668.981}_{-765.063}$ | sdO | 0.000 | $3.77^{+6.24}_{-3.14}$ |
| | $2700^{+3869}_{-400}$ | $4.5 \pm 0.10$ | | | | | $0.336^{+0.177}_{-0.137}$ | $0.009^{+0.180}_{-0.007}$ | | | |
| GaiaDR32897707885063835648 | $115000^{+0}_{-40000}$ | $6.60 \pm 0.15$ | $7.06^{+1.79}_{-0.42}$ | $-12.017^{+0.493}_{-0.273}$ | $0.000^{+0.622}_{-0.000}$ | $0.65 \pm 0.05$ | $0.033^{+0.069}_{-0.016}$ | $108.437^{+911.809}_{-91.024}$ | sdO | 1.290 | $261.47^{+638.53}_{-260.08}$ |
| | $4149^{+4850}_{-1849}$ | $4.5 \pm 0.10$ | | | | | $0.676^{+1.416}_{-0.412}$ | $0.179^{+5.216}_{-0.174}$ | | | |
| GaiaDR35291041443979101696 | $115000^{+0}_{-40000}$ | $6.60 \pm 0.15$ | $6.46^{+0.52}_{-0.18}$ | $-11.871^{+0.218}_{-0.066}$ | $0.063^{+0.100}_{-0.063}$ | $0.47 \pm 0.03$ | $0.066^{+0.039}_{-0.014}$ | $500.719^{+780.665}_{-371.136}$ | sdO | 0.000 | $328.86^{+133.54}_{-216.27}$ |
| | $5959^{+262}_{-237}$ | $4.5 \pm 0.10$ | | | | | $1.200^{+0.720}_{-0.409}$ | $1.646^{+2.619}_{-0.948}$ | | | |
| GaiaDR32912425780212327680 | $115000^{+0}_{-40000}$ | $6.60 \pm 0.15$ | $7.14^{+0.31}_{-0.13}$ | $-12.113^{+0.147}_{-0.038}$ | 0.028 | $0.58 \pm 0.05$ | $0.031^{+0.011}_{-0.005}$ | $112.331^{+100.538}_{-84.459}$ | sdO | 0.172 | $380.32^{+66.69}_{-190.00}$ |
| | $5617^{+394}_{-347}$ | $4.5 \pm 0.10$ | | | | | $0.576^{+0.211}_{-0.149}$ | $0.300^{+0.289}_{-0.148}$ | | | |
| GaiaDR35302261822705330432 | $115000^{+0}_{-40000}$ | $6.60 \pm 0.15$ | $7.04^{+0.76}_{-0.28}$ | $-12.012^{+0.280}_{-0.155}$ | $0.138^{+0.222}_{-0.138}$ | $0.64 \pm 0.04$ | $0.034^{+0.030}_{-0.011}$ | $122.048^{+330.564}_{-93.309}$ | sdO | 0.172 | $248.34^{+298.89}_{-186.35}$ |
| | $5085^{+482}_{-375}$ | $4.5 \pm 0.10$ | | | | | $0.589^{+0.562}_{-0.275}$ | $0.213^{+0.634}_{-0.156}$ | | | |
| GALEXJ04226-5408 | $115000^{+0}_{-37026}$ | $6.60 \pm 0.15$ | $6.19^{+0.20}_{-0.08}$ | $-11.488^{+0.104}_{-0.011}$ | $0.007^{+0.058}_{-0.007}$ | $0.83 \pm 0.06$ | $0.091^{+0.021}_{-0.008}$ | $1075.787^{+547.129}_{-786.417}$ | sdO | 0.011 | $87.62^{+4.96}_{-33.60}$ |
| | $5938^{+74}_{-195}$ | $4.5 \pm 0.10$ | | | | | $0.818^{+0.183}_{-0.150}$ | $0.727^{+0.367}_{-0.251}$ | | | |
| GaiaDR35558393434348103424 | $115000^{+0}_{-40000}$ | $6.60 \pm 0.15$ | $6.56^{+0.28}_{-0.14}$ | $-11.972^{+0.136}_{-0.025}$ | 0.100 | $0.42 \pm 0.04$ | $0.060^{+0.019}_{-0.009}$ | $417.656^{+358.775}_{-314.336}$ | sdO | 0.045 | $110.91^{+9.46}_{-51.08}$ |
| | $6323^{+333}_{-367}$ | $4.5 \pm 0.10$ | | | | | $0.592^{+0.200}_{-0.141}$ | $0.500^{+0.427}_{-0.230}$ | | | |
| GaiaDR35508822949042944896 | $115000^{+0}_{-40000}$ | $6.60 \pm 0.15$ | $5.83^{+0.22}_{-0.13}$ | $-11.655^{+0.101}_{-0.011}$ | $0.081^{+0.010}_{-0.028}$ | $0.38 \pm 0.04$ | $0.139^{+0.034}_{-0.021}$ | $2255.608^{+1634.588}_{-1708.929}$ | sdO | 0.031 | $3.23^{+1.93}_{-1.88}$ |
| | $7000^{+0}_{-995}$ | $4.5 \pm 0.10$ | | | | | $0.252^{+0.092}_{-0.082}$ | $0.109^{+0.111}_{-0.066}$ | | | |
| GaiaDR35298474280029567616 | $115000^{+0}_{-40000}$ | $6.60 \pm 0.15$ | $6.17^{+0.45}_{-0.24}$ | $-11.804^{+0.180}_{-0.119}$ | $0.116^{+0.067}_{-0.116}$ | $0.38 \pm 0.03$ | $0.094^{+0.048}_{-0.026}$ | $908.801^{+1469.027}_{-685.771}$ | sdO | 0.004 | $100.15^{+87.43}_{-57.82}$ |
| | $6047^{+120}_{-300}$ | $4.5 \pm 0.10$ | | | | | $0.962^{+0.613}_{-0.385}$ | $1.059^{+1.814}_{-0.682}$ | | | |
| Parallax error $\leq 5\,\%$ | | | | | | | | | | | |
| GaiaDR35288885232956603136 | $10097^{+337}_{-587}$ | $3.38 \pm 0.22$ | $5.80^{+0.13}_{-0.09}$ | $-11.200^{+0.061}_{-0.035}$ | 0.164 | $0.99 \pm 0.04$ | $0.143^{+0.021}_{-0.014}$ | $0.186^{+0.069}_{-0.048}$ | BHB | 0.043 | $3.98^{+0.96}_{-1.29}$ |
| | $7000^{+0}_{-77}$ | $4.5 \pm 0.10$ | | | | | $0.282^{+0.055}_{-0.054}$ | $0.169^{+0.073}_{-0.058}$ | | | |

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|---|---|---|---|---|---|---|---|---|---|---|
| GaiaDR32898177758783193344 | $11476^{+7356}_{-1927}$ | $3.76 \pm 0.23$ | $5.49^{+0.25}_{-0.19}$ | $-11.111^{+0.106}_{-0.103}$ | $0.000^{+0.285}_{-0.000}$ | $0.84 \pm 0.03$ | $0.204^{+0.058}_{-0.044}$ | $0.814^{+4.165}_{-0.545}$ | BHB | 0.381 | $11.69^{+10.74}_{-6.26}$ |
| | $3400^{+666}_{-1099}$ | $4.5 \pm 0.10$ | | | | | $0.713^{+0.338}_{-0.256}$ | $0.049^{+0.119}_{-0.041}$ | | | |
| GaiaDR35291929437056010496 | $12812^{+2855}_{-689}$ | $4.33 \pm 0.23$ | $5.43^{+0.22}_{-0.14}$ | $-10.974^{+0.100}_{-0.069}$ | $0.000^{+0.174}_{-0.000}$ | $1.08 \pm 0.02$ | $0.220^{+0.056}_{-0.035}$ | $1.412^{+1.599}_{-0.608}$ | BHB | 0.112 | $11.03^{+3.54}_{-5.03}$ |
| | $5279^{+451}_{-359}$ | $4.5 \pm 0.10$ | | | | | $0.715^{+0.225}_{-0.195}$ | $0.360^{+0.320}_{-0.183}$ | | | |
| GaiaDR34804695423438691200 | $13478^{+1121}_{-785}$ | $4.10 \pm 0.23$ | $5.27^{+0.11}_{-0.12}$ | $-10.913^{+0.043}_{-0.063}$ | 0.040 | $1.02 \pm 0.02$ | $0.264^{+0.033}_{-0.036}$ | $2.092^{+0.979}_{-0.665}$ | BHB | 0.322 | $36.25^{+18.73}_{-14.88}$ |
| | $3036^{+850}_{-515}$ | $4.5 \pm 0.10$ | | | | | $1.576^{+0.432}_{-0.407}$ | $0.194^{+0.359}_{-0.125}$ | | | |
| GaiaDR35572008721193797632 | $16580^{+1382}_{-1107}$ | $4.53 \pm 0.23$ | $5.18^{+0.08}_{-0.09}$ | $-10.685^{+0.036}_{-0.044}$ | 0.078 | $1.57 \pm 0.01$ | $0.291^{+0.028}_{-0.029}$ | $5.785^{+2.523}_{-1.719}$ | BHB | 0.072 | $8.47^{+1.77}_{-1.32}$ |
| | $5461^{+320}_{-283}$ | $4.5 \pm 0.10$ | | | | | $0.847^{+0.118}_{-0.108}$ | $0.577^{+0.236}_{-0.170}$ | | | |
| GaiaDR35282634371914454912 | $17167^{+2832}_{-1680}$ | $4.53 \pm 0.23$ | $5.94^{+0.17}_{-0.21}$ | $-11.208^{+0.069}_{-0.120}$ | 0.138 | $1.11 \pm 0.03$ | $0.122^{+0.023}_{-0.029}$ | $1.172^{+1.141}_{-0.577}$ | BHB | 0.230 | $11.59^{+7.02}_{-3.19}$ |
| | $5250^{+809}_{-627}$ | $4.5 \pm 0.10$ | | | | | $0.417^{+0.137}_{-0.113}$ | $0.120^{+0.145}_{-0.067}$ | | | |
| GaiaDR35497677749426668800 | $18218^{+1782}_{-1589}$ | $4.69 \pm 0.22$ | $5.17^{+0.14}_{-0.15}$ | $-10.904^{+0.058}_{-0.083}$ | 0.085 | $0.93 \pm 0.01$ | $0.295^{+0.048}_{-0.051}$ | $8.479^{+5.365}_{-3.433}$ | BHB | 0.153 | $4.43^{+2.08}_{-1.14}$ |
| | $6000^{+1086}_{-1017}$ | $4.5 \pm 0.10$ | | | | | $0.623^{+0.165}_{-0.138}$ | $0.444^{+0.567}_{-0.263}$ | | | |
| EC05387-3558 | $18511^{+1488}_{-1305}$ | $4.82 \pm 0.22$ | $5.62^{+0.08}_{-0.08}$ | $-10.890^{+0.036}_{-0.043}$ | 0.032 | $1.62 \pm 0.01$ | $0.176^{+0.017}_{-0.017}$ | $3.280^{+1.404}_{-0.987}$ | BHB | 0.043 | $5.72^{+1.30}_{-0.94}$ |
| | $6008^{+319}_{-272}$ | $4.5 \pm 0.10$ | | | | | $0.422^{+0.060}_{-0.054}$ | $0.211^{+0.083}_{-0.060}$ | | | |
| GaiaDR35479385037036573440 | $19608^{+2351}_{-1946}$ | $4.96 \pm 0.21$ | $5.24^{+0.20}_{-0.51}$ | $-11.163^{+0.041}_{-0.423}$ | 0.124 | $0.52 \pm 0.02$ | $0.273^{+0.063}_{-0.162}$ | $8.464^{+9.429}_{-6.872}$ | BHB | 0.120 | $10.07^{+4.08}_{-2.82}$ |
| | $3551^{+514}_{-501}$ | $4.5 \pm 0.10$ | | | | | $0.813^{+0.315}_{-0.467}$ | $0.081^{+0.135}_{-0.066}$ | | | |
| GaiaDR35610452114472366208 | $20460^{+3645}_{-2654}$ | $4.96 \pm 0.21$ | $5.53^{+0.26}_{-0.19}$ | $-11.171^{+0.111}_{-0.101}$ | $0.047^{+0.161}_{-0.047}$ | $0.77 \pm 0.02$ | $0.195^{+0.058}_{-0.042}$ | $6.228^{+7.622}_{-3.376}$ | sdB | 0.044 | $10.51^{+7.00}_{-5.17}$ |
| | $5445^{+332}_{-598}$ | $4.5 \pm 0.10$ | | | | | $0.633^{+0.273}_{-0.212}$ | $0.289^{+0.355}_{-0.173}$ | | | |
| MASTEROTJ072703.91-631952.8 | $21000^{+1817}_{-1384}$ | $4.96 \pm 0.21$ | $5.39^{+0.10}_{-0.11}$ | $-10.966^{+0.041}_{-0.055}$ | 0.162 | $1.04 \pm 0.02$ | $0.230^{+0.027}_{-0.028}$ | $9.274^{+4.418}_{-2.956}$ | sdB | 0.092 | $6.01^{+1.52}_{-1.07}$ |
| | $5643^{+646}_{-547}$ | $4.5 \pm 0.10$ | | | | | $0.563^{+0.095}_{-0.086}$ | $0.290^{+0.201}_{-0.120}$ | | | |
| GaiaDR35560591014496851584 | $21104^{+4243}_{-3061}$ | $5.06 \pm 0.21$ | $5.48^{+0.19}_{-0.18}$ | $-11.236^{+0.076}_{-0.097}$ | 0.172 | $0.62 \pm 0.03$ | $0.206^{+0.046}_{-0.042}$ | $7.670^{+9.578}_{-4.233}$ | sdB | 0.096 | $15.56^{+8.26}_{-4.30}$ |
| | $4951^{+403}_{-406}$ | $4.5 \pm 0.10$ | | | | | $0.821^{+0.264}_{-0.210}$ | $0.360^{+0.327}_{-0.177}$ | | | |
| GaiaDR35290282162482108928 | $22851^{+1925}_{-1849}$ | $5.24 \pm 0.20$ | $5.49^{+0.10}_{-0.09}$ | $-11.043^{+0.041}_{-0.041}$ | 0.192 | $0.99 \pm 0.02$ | $0.204^{+0.023}_{-0.021}$ | $10.183^{+4.838}_{-3.367}$ | sdB | 0.017 | $10.43^{+2.25}_{-1.84}$ |
| | $5745^{+204}_{-217}$ | $4.5 \pm 0.10$ | | | | | $0.658^{+0.102}_{-0.090}$ | $0.423^{+0.161}_{-0.119}$ | | | |

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|---|---|---|---|---|---|---|---|---|---|---|---|
| EC05155-6100 | $24321^{+4403}_{-2004}$ | $5.34 \pm 0.19$ | $5.41^{+0.09}_{-0.09}$ | $-11.131^{+0.028}_{-0.045}$ | $0.010^{+0.048}_{-0.010}$ | $0.72 \pm 0.03$ | $0.225^{+0.024}_{-0.024}$ | $16.680^{+14.992}_{-6.195}$ | sdB | 0.137 | $20.04^{+6.38}_{-10.40}$ |
| | $2300^{+643}_{-0}$ | $4.5 \pm 0.10$ | | | | | $0.982^{+0.210}_{-0.272}$ | $0.031^{+0.036}_{-0.015}$ | | | |
| GaiaDR35477422099543150592 | $24362^{+1888}_{-1973}$ | $5.03 \pm 0.21$ | $5.32^{+0.12}_{-0.10}$ | $-10.652^{+0.056}_{-0.051}$ | 0.063 | $2.00 \pm 0.02$ | $0.248^{+0.035}_{-0.028}$ | $19.476^{+9.543}_{-6.613}$ | sdB | 0.118 | $7.04^{+1.76}_{-1.46}$ |
| | $5800^{+614}_{-771}$ | $4.5 \pm 0.10$ | | | | | $0.659^{+0.121}_{-0.104}$ | $0.427^{+0.317}_{-0.202}$ | | | |
| GaiaDR35486406483933078016 | $24531^{+24905}_{-6941}$ | $5.21 \pm 0.20$ | $5.64^{+0.21}_{-0.28}$ | $-11.219^{+0.079}_{-0.174}$ | $0.078^{+0.145}_{-0.078}$ | $0.77 \pm 0.03$ | $0.171^{+0.041}_{-0.055}$ | $10.593^{+134.822}_{-8.711}$ | sdB | 0.170 | $16.86^{+29.05}_{-10.17}$ |
| | $2500^{+949}_{-199}$ | $4.5 \pm 0.10$ | | | | | $0.716^{+0.481}_{-0.312}$ | $0.024^{+0.067}_{-0.018}$ | | | |
| GaiaDR35579436712515286016 | $24562^{+1299}_{-1279}$ | $5.42 \pm 0.19$ | $5.84^{+0.08}_{-0.08}$ | $-10.830^{+0.035}_{-0.039}$ | $0.054^{+0.046}_{-0.051}$ | $2.41 \pm 0.08$ | $0.136^{+0.012}_{-0.012}$ | $6.040^{+1.864}_{-1.465}$ | sdB | 0.000 | $25.34^{+5.33}_{-3.97}$ |
| | $4889^{+45}_{-56}$ | $4.5 \pm 0.10$ | | | | | $0.686^{+0.091}_{-0.082}$ | $0.241^{+0.069}_{-0.055}$ | | | |
| GALEXJ03154-5934 | $24580^{+1274}_{-1197}$ | $5.29 \pm 0.20$ | $5.35^{+0.15}_{-0.12}$ | $-10.960^{+0.069}_{-0.058}$ | $0.032^{+0.057}_{-0.032}$ | $1.01 \pm 0.03$ | $0.241^{+0.043}_{-0.033}$ | $19.183^{+8.812}_{-5.807}$ | sdB | 0.000 | $23.08^{+7.79}_{-7.16}$ |
| | $6286^{+121}_{-133}$ | $4.5 \pm 0.10$ | | | | | $1.152^{+0.281}_{-0.244}$ | $1.859^{+1.041}_{-0.713}$ | | | |
| GaiaDR32919889883618031104 | $24672^{+1878}_{-1902}$ | $5.39 \pm 0.19$ | $5.67^{+0.07}_{-0.06}$ | $-11.247^{+0.020}_{-0.006}$ | $0.148^{+0.017}_{-0.020}$ | $0.77 \pm 0.03$ | $0.165^{+0.013}_{-0.011}$ | $9.146^{+3.579}_{-2.698}$ | sdB | 0.011 | $18.53^{+2.90}_{-3.36}$ |
| | $2300^{+122}_{-0}$ | $4.5 \pm 0.10$ | | | | | $0.709^{+0.081}_{-0.079}$ | $0.014^{+0.004}_{-0.003}$ | | | |
| GaiaDR34766218190119756928 | $24999^{+5111}_{-4826}$ | $4.96 \pm 0.21$ | $6.34^{+0.50}_{-0.24}$ | $-11.094^{+0.198}_{-0.137}$ | 0.057 | $2.33 \pm 0.01$ | $0.077^{+0.044}_{-0.021}$ | $2.173^{+4.446}_{-1.460}$ | sdB | 0.430 | $14.78^{+11.17}_{-7.00}$ |
| | $5592^{+1152}_{-2761}$ | $4.5 \pm 0.10$ | | | | | $0.304^{+0.196}_{-0.115}$ | $0.058^{+0.201}_{-0.054}$ | | | |
| GaiaDR35289165505343002880 | $25349^{+3229}_{-2836}$ | $5.48 \pm 0.18$ | $5.46^{+0.08}_{-0.07}$ | $-11.099^{+0.024}_{-0.028}$ | $0.097^{+0.042}_{-0.046}$ | $0.83 \pm 0.02$ | $0.211^{+0.019}_{-0.017}$ | $16.703^{+10.916}_{-6.684}$ | sdB | 0.056 | $10.71^{+3.22}_{-1.93}$ |
| | $3804^{+383}_{-413}$ | $4.5 \pm 0.10$ | | | | | $0.698^{+0.110}_{-0.092}$ | $0.091^{+0.058}_{-0.038}$ | | | |
| GaiaDR35477508583007863936 | $25477^{+1880}_{-1621}$ | $5.36 \pm 0.19$ | $5.44^{+0.15}_{-0.12}$ | $-11.004^{+0.066}_{-0.063}$ | $0.034^{+0.054}_{-0.034}$ | $1.02 \pm 0.02$ | $0.216^{+0.037}_{-0.031}$ | $17.908^{+9.325}_{-6.074}$ | sdB | 0.000 | $24.35^{+9.10}_{-7.24}$ |
| | $6269^{+148}_{-150}$ | $4.5 \pm 0.10$ | | | | | $1.066^{+0.265}_{-0.227}$ | $1.578^{+0.910}_{-0.611}$ | | | |
| GaiaDR35551984518508239744 | $25719^{+1011}_{-963}$ | $5.44 \pm 0.19$ | $5.43^{+0.05}_{-0.05}$ | $-10.930^{+0.018}_{-0.019}$ | $0.000^{+0.009}_{-0.000}$ | $1.19 \pm 0.04$ | $0.220^{+0.014}_{-0.013}$ | $19.019^{+4.100}_{-3.377}$ | sdB | 0.000 | $10.46^{+0.93}_{-0.82}$ |
| | $4473^{+105}_{-121}$ | $4.5 \pm 0.10$ | | | | | $0.710^{+0.054}_{-0.050}$ | $0.181^{+0.035}_{-0.030}$ | | | |
| GaiaDR35278923726328106240 | $25918^{+1153}_{-1140}$ | $5.47 \pm 0.18$ | $5.45^{+0.08}_{-0.07}$ | $-11.168^{+0.022}_{-0.021}$ | $0.000^{+0.013}_{-0.000}$ | $0.71 \pm 0.03$ | $0.213^{+0.020}_{-0.017}$ | $18.481^{+5.197}_{-4.054}$ | sdB | 0.006 | $9.41^{+1.01}_{-0.92}$ |
| | $4774^{+99}_{-121}$ | $4.5 \pm 0.10$ | | | | | $0.654^{+0.070}_{-0.062}$ | $0.199^{+0.050}_{-0.039}$ | | | |
| GaiaDR34676030027297506432 | $26411^{+1412}_{-1299}$ | $5.36 \pm 0.19$ | $5.65^{+0.07}_{-0.06}$ | $-11.050^{+0.025}_{-0.025}$ | $0.000^{+0.008}_{-0.000}$ | $1.16 \pm 0.03$ | $0.170^{+0.013}_{-0.012}$ | $12.687^{+3.625}_{-2.816}$ | sdB | 0.000 | $8.14^{+0.97}_{-0.82}$ |
| | $4561^{+132}_{-148}$ | $4.5 \pm 0.10$ | | | | | $0.485^{+0.046}_{-0.042}$ | $0.091^{+0.022}_{-0.018}$ | | | |

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|---|---|---|---|---|---|---|---|---|---|---|---|
| 2MASSJ07123290-3605385 | $26418^{+6106}_{-4828}$ | $5.44 \pm 0.19$ | $6.60^{+0.32}_{-0.25}$ | $-11.500^{+0.136}_{-0.143}$ | $0.000^{+0.053}_{-0.000}$ | $1.23 \pm 0.03$ | $0.057^{+0.021}_{-0.016}$ | $1.438^{+2.584}_{-0.945}$ | sdB | 0.228 | $55.75^{+46.30}_{-24.85}$ |
| | $5600^{+411}_{-435}$ | $4.5 \pm 0.10$ | | | | | $0.430^{+0.227}_{-0.159}$ | $0.161^{+0.236}_{-0.100}$ | | | |
| GaiaDR3476487121965663600 | $26699^{+2829}_{-2697}$ | $5.50 \pm 0.18$ | $6.19^{+0.15}_{-0.13}$ | $-11.151^{+0.069}_{-0.069}$ | 0.050 | $1.72 \pm 0.01$ | $0.091^{+0.016}_{-0.014}$ | $3.794^{+2.574}_{-1.576}$ | sdB | 0.045 | $20.51^{+7.33}_{-5.51}$ |
| | $6616^{+253}_{-278}$ | $4.5 \pm 0.10$ | | | | | $0.413^{+0.101}_{-0.086}$ | $0.292^{+0.174}_{-0.113}$ | | | |
| GaiaDR3531594486695566 7072 | $26714^{+9718}_{-5724}$ | $5.76 \pm 0.16$ | $5.31^{+0.15}_{-0.16}$ | $-11.127^{+0.056}_{-0.090}$ | $0.208^{+0.068}_{-0.071}$ | $0.65 \pm 0.02$ | $0.252^{+0.044}_{-0.047}$ | $29.800^{+72.215}_{-19.912}$ | sdB | 0.047 | $11.52^{+9.15}_{-5.16}$ |
| | $3000^{+758}_{-699}$ | $4.5 \pm 0.10$ | | | | | $0.857^{+0.327}_{-0.265}$ | $0.051^{+0.107}_{-0.037}$ | | | |
| HE0510-4023 | $27189^{+1095}_{-1003}$ | $5.50 \pm 0.18$ | $5.48^{+0.06}_{-0.05}$ | $-11.139^{+0.012}_{-0.003}$ | $0.049^{+0.008}_{-0.010}$ | $0.78 \pm 0.03$ | $0.207^{+0.015}_{-0.013}$ | $21.233^{+4.861}_{-3.875}$ | sdB | 0.004 | $16.47^{+1.72}_{-6.59}$ |
| | $2300^{+438}_{-0}$ | $4.5 \pm 0.10$ | | | | | $0.816^{+0.093}_{-0.166}$ | $0.019^{+0.014}_{-0.007}$ | | | |
| GaiaDR3550075823741588 1984 | $27485^{+3071}_{-2332}$ | $5.58 \pm 0.18$ | $5.64^{+0.16}_{-0.12}$ | $-11.269^{+0.069}_{-0.053}$ | $0.000^{+0.071}_{-0.000}$ | $0.70 \pm 0.02$ | $0.172^{+0.032}_{-0.024}$ | $15.645^{+10.531}_{-6.051}$ | sdB | 0.000 | $28.46^{+7.41}_{-8.39}$ |
| | $5439^{+122}_{-110}$ | $4.5 \pm 0.10$ | | | | | $0.906^{+0.211}_{-0.181}$ | $0.649^{+0.346}_{-0.237}$ | | | |
| GaiaDR3560724878612393 6384 | $28398^{+8259}_{-4774}$ | $5.62 \pm 0.17$ | $5.71^{+0.32}_{-0.28}$ | $-11.256^{+0.131}_{-0.169}$ | $0.127^{+0.161}_{-0.127}$ | $0.78 \pm 0.02$ | $0.158^{+0.059}_{-0.051}$ | $15.165^{+32.171}_{-10.213}$ | sdB | 0.025 | $25.56^{+33.61}_{-12.72}$ |
| | $5563^{+206}_{-254}$ | $4.5 \pm 0.10$ | | | | | $0.820^{+0.521}_{-0.343}$ | $0.570^{+0.974}_{-0.380}$ | | | |
| GaiaDR3527784335307768 4992 | $28413^{+5254}_{-4005}$ | $5.62 \pm 0.17$ | $5.51^{+0.16}_{-0.46}$ | $-11.217^{+0.032}_{-0.359}$ | $0.179^{+0.043}_{-0.039}$ | $0.63 \pm 0.03$ | $0.200^{+0.037}_{-0.107}$ | $18.836^{+27.486}_{-14.262}$ | sdB | 0.026 | $5.41^{+3.16}_{-4.92}$ |
| | $2300^{+6700}_{-0}$ | $4.5 \pm 0.10$ | | | | | $0.406^{+0.219}_{-0.227}$ | $0.011^{+0.808}_{-0.009}$ | | | |
| LB1695 | $28603^{+1147}_{-1108}$ | $5.54 \pm 0.18$ | $5.32^{+0.06}_{-0.05}$ | $-10.946^{+0.019}_{-0.018}$ | 0.011 | $1.01 \pm 0.03$ | $0.250^{+0.017}_{-0.016}$ | $37.600^{+8.563}_{-6.987}$ | sdB | 0.002 | $12.61^{+1.05}_{-0.95}$ |
| | $4529^{+82}_{-95}$ | $4.5 \pm 0.10$ | | | | | $0.887^{+0.071}_{-0.065}$ | $0.297^{+0.056}_{-0.047}$ | | | |
| GaiaDR3476010559266409 7280 | $29000^{+14499}_{-4450}$ | $5.65 \pm 0.17$ | $5.78^{+0.26}_{-0.34}$ | $-11.138^{+0.104}_{-0.221}$ | 0.034 | $1.09 \pm 0.02$ | $0.147^{+0.043}_{-0.058}$ | $14.837^{+52.991}_{-10.507}$ | sdB | 0.239 | $12.58^{+21.43}_{-4.96}$ |
| | $6455^{+1051}_{-953}$ | $4.5 \pm 0.10$ | | | | | $0.531^{+0.358}_{-0.229}$ | $0.430^{+0.978}_{-0.313}$ | | | |
| GaiaDR3555604295336572 6592 | $30199^{+6956}_{-4272}$ | $5.70 \pm 0.16$ | $5.74^{+0.20}_{-0.18}$ | $-11.262^{+0.086}_{-0.095}$ | 0.054 | $0.79 \pm 0.02$ | $0.153^{+0.036}_{-0.031}$ | $18.463^{+25.832}_{-10.270}$ | sdOB | 0.081 | $9.91^{+6.95}_{-3.58}$ |
| | $7000^{+0}_{-499}$ | $4.5 \pm 0.10$ | | | | | $0.490^{+0.185}_{-0.141}$ | $0.462^{+0.433}_{-0.234}$ | | | |
| GaiaDR3530104830117007 5264 | $30517^{+3892}_{-2298}$ | $5.73 \pm 0.16$ | $6.00^{+0.11}_{-0.10}$ | $-11.410^{+0.039}_{-0.047}$ | $0.000^{+0.062}_{-0.000}$ | $0.76 \pm 0.04$ | $0.113^{+0.014}_{-0.013}$ | $10.307^{+6.616}_{-3.603}$ | sdOB | 0.000 | $22.73^{+5.25}_{-3.83}$ |
| | $4892^{+137}_{-165}$ | $4.5 \pm 0.10$ | | | | | $0.540^{+0.089}_{-0.078}$ | $0.149^{+0.058}_{-0.043}$ | | | |
| GALEXJ08390-6534 | $30565^{+7227}_{-4288}$ | $5.86 \pm 0.15$ | $5.48^{+0.11}_{-0.12}$ | $-11.005^{+0.047}_{-0.065}$ | $0.141^{+0.036}_{-0.032}$ | $1.06 \pm 0.02$ | $0.206^{+0.027}_{-0.029}$ | $34.242^{+45.299}_{-17.503}$ | sdOB | 0.046 | $6.08^{+9.07}_{-2.90}$ |
| | $2900^{+887}_{-599}$ | $4.5 \pm 0.10$ | | | | | $0.529^{+0.280}_{-0.170}$ | $0.019^{+0.048}_{-0.014}$ | | | |

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|---|---|---|---|---|---|---|---|---|---|---|---|
| EC04598-5519 | $30868^{+3576}_{-2602}$ | $5.80 \pm 0.15$ | $5.59^{+0.16}_{-0.14}$ | $-11.403^{+0.054}_{-0.064}$ | 0.020 | $0.48 \pm 0.02$ | $0.182^{+0.034}_{-0.029}$ | $27.783^{+19.532}_{-11.213}$ | sdOB | 0.002 | $56.22^{+18.73}_{-12.16}$ |
| | $6944^{+75}_{-78}$ | $4.5 \pm 0.10$ | | | | | $1.376^{+0.331}_{-0.272}$ | $3.961^{+2.149}_{-1.417}$ | | | |
| EC05313-5402 | $31304^{+4296}_{-3138}$ | $5.70 \pm 0.17$ | $5.66^{+0.14}_{-0.12}$ | $-11.366^{+0.049}_{-0.058}$ | $0.045^{+0.044}_{-0.045}$ | $0.57 \pm 0.02$ | $0.168^{+0.027}_{-0.024}$ | $24.766^{+19.044}_{-10.425}$ | sdOB | 0.041 | $37.02^{+10.57}_{-7.29}$ |
| | $6207^{+221}_{-216}$ | $4.5 \pm 0.10$ | | | | | $1.024^{+0.214}_{-0.181}$ | $1.400^{+0.699}_{-0.474}$ | | | |
| GaiaDR35486042579942991104 | $32256^{+17121}_{-11945}$ | $5.84 \pm 0.15$ | $6.22^{+0.65}_{-0.33}$ | $-11.552^{+0.242}_{-0.204}$ | 0.147 | $0.71 \pm 0.03$ | $0.088^{+0.066}_{-0.034}$ | $8.193^{+48.679}_{-7.284}$ | sdOB | 0.211 | $52.34^{+74.03}_{-34.68}$ |
| | $5395^{+705}_{-708}$ | $4.5 \pm 0.10$ | | | | | $0.679^{+0.633}_{-0.335}$ | $0.339^{+1.068}_{-0.262}$ | | | |
| HE0410-4901 | $32366^{+1521}_{-1375}$ | $5.82 \pm 0.15$ | $5.53^{+0.08}_{-0.07}$ | $-11.192^{+0.021}_{-0.022}$ | 0.015 | $0.73 \pm 0.03$ | $0.195^{+0.017}_{-0.015}$ | $37.689^{+10.594}_{-8.157}$ | sdOB | 0.000 | $11.62^{+1.23}_{-1.07}$ |
| | $5385^{+112}_{-113}$ | $4.5 \pm 0.10$ | | | | | $0.665^{+0.069}_{-0.061}$ | $0.335^{+0.080}_{-0.064}$ | | | |
| GaiaDR35288678249893298304 | $33465^{+10525}_{-3333}$ | $5.88 \pm 0.15$ | $5.87^{+0.13}_{-0.17}$ | $-11.284^{+0.046}_{-0.098}$ | 0.174 | $0.86 \pm 0.03$ | $0.132^{+0.019}_{-0.026}$ | $21.252^{+37.327}_{-10.351}$ | sdOB | 0.214 | $52.30^{+30.11}_{-34.10}$ |
| | $2300^{+1069}_{-0}$ | $4.5 \pm 0.10$ | | | | | $0.932^{+0.315}_{-0.326}$ | $0.032^{+0.072}_{-0.020}$ | | | |
| GaiaDR355578805592840839168 | $33687^{+2825}_{-2688}$ | $5.87 \pm 0.15$ | $5.88^{+0.11}_{-0.08}$ | $-11.287^{+0.053}_{-0.025}$ | $0.026^{+0.042}_{-0.024}$ | $0.89 \pm 0.03$ | $0.131^{+0.017}_{-0.011}$ | $20.266^{+9.697}_{-6.547}$ | sdOB | 0.000 | $3.40^{+0.68}_{-1.05}$ |
| | $7000^{+0}_{-1452}$ | $4.5 \pm 0.10$ | | | | | $0.239^{+0.041}_{-0.042}$ | $0.096^{+0.054}_{-0.054}$ | | | |
| GaiaDR35301973922457181440 | $34997^{+4643}_{-4954}$ | $5.46 \pm 0.15$ | $6.17^{+0.12}_{-0.11}$ | $-11.516^{+0.047}_{-0.049}$ | $0.158^{+0.055}_{-0.083}$ | $0.73 \pm 0.03$ | $0.093^{+0.013}_{-0.011}$ | $11.498^{+8.879}_{-5.527}$ | sdOB | 0.014 | $37.05^{+9.56}_{-7.00}$ |
| | $4761^{+118}_{-153}$ | $4.5 \pm 0.10$ | | | | | $0.567^{+0.104}_{-0.090}$ | $0.147^{+0.063}_{-0.045}$ | | | |
| GaiaDR35511237854536885632 | $35827^{+3175}_{-2584}$ | $5.41 \pm 0.15$ | $5.97^{+0.15}_{-0.13}$ | $-11.370^{+0.066}_{-0.063}$ | $0.065^{+0.063}_{-0.057}$ | $0.80 \pm 0.02$ | $0.118^{+0.021}_{-0.017}$ | $20.884^{+12.165}_{-7.580}$ | sdOB | 0.000 | $44.09^{+16.67}_{-12.78}$ |
| | $5700^{+60}_{-74}$ | $4.5 \pm 0.10$ | | | | | $0.782^{+0.198}_{-0.167}$ | $0.579^{+0.333}_{-0.222}$ | | | |
| GaiaDR34756267369383483904 | $35862^{+1760}_{-933}$ | $5.61 \pm 0.15$ | $5.92^{+0.06}_{-0.06}$ | $-11.330^{+0.014}_{-0.016}$ | $0.000^{+0.008}_{-0.000}$ | $0.84 \pm 0.03$ | $0.124^{+0.009}_{-0.008}$ | $23.473^{+5.666}_{-4.075}$ | sdOB | 0.008 | $54.14^{+3.29}_{-2.73}$ |
| | $5279^{+65}_{-66}$ | $4.5 \pm 0.10$ | | | | | $0.913^{+0.072}_{-0.064}$ | $0.583^{+0.100}_{-0.084}$ | | | |
| GaiaDR32889426745736892032 | $36746^{+6933}_{-3095}$ | $5.43 \pm 0.15$ | $5.96^{+0.11}_{-0.11}$ | $-11.386^{+0.039}_{-0.056}$ | 0.046 | $0.76 \pm 0.02$ | $0.119^{+0.015}_{-0.015}$ | $24.527^{+23.252}_{-9.638}$ | sdOB | 0.004 | $67.69^{+18.60}_{-10.69}$ |
| | $5613^{+71}_{-68}$ | $4.5 \pm 0.10$ | | | | | $0.987^{+0.173}_{-0.151}$ | $0.871^{+0.336}_{-0.248}$ | | | |
| GaiaDR35275785136027857792 | $38082^{+6872}_{-3311}$ | $5.55 \pm 0.15$ | $5.81^{+0.13}_{-0.12}$ | $-11.215^{+0.055}_{-0.059}$ | $0.136^{+0.040}_{-0.038}$ | $0.96 \pm 0.02$ | $0.141^{+0.021}_{-0.019}$ | $40.180^{+37.118}_{-16.368}$ | sdOB | 0.001 | $59.81^{+19.52}_{-14.39}$ |
| | $6056^{+93}_{-88}$ | $4.5 \pm 0.10$ | | | | | $1.094^{+0.235}_{-0.203}$ | $1.451^{+0.701}_{-0.492}$ | | | |
| GALEXJ06374-3409 | $38663^{+4883}_{-3168}$ | $5.40 \pm 0.15$ | $6.02^{+0.07}_{-0.07}$ | $-11.271^{+0.027}_{-0.029}$ | $0.077^{+0.009}_{-0.010}$ | $1.07 \pm 0.03$ | $0.111^{+0.009}_{-0.009}$ | $25.344^{+15.545}_{-8.386}$ | sdOB | 0.000 | $18.61^{+4.17}_{-3.18}$ |
| | $3600^{+223}_{-217}$ | $4.5 \pm 0.10$ | | | | | $0.480^{+0.064}_{-0.057}$ | $0.035^{+0.014}_{-0.010}$ | | | |

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|---|---|---|---|---|---|---|---|---|---|---|---|
| GaiaDR32901783160488793728 | $38999^{+13837}_{-13340}$ | $5.39 \pm 0.15$ | $6.57^{+0.32}_{-0.16}$ | $-11.288^{+0.138}_{-0.088}$ | $0.081^{+0.067}_{-0.081}$ | $1.95 \pm 0.01$ | $0.059^{+0.022}_{-0.011}$ | $7.609^{+21.310}_{-6.275}$ | sdOB | 0.227 | $182.14^{+88.48}_{-78.53}$ |
| | $4885^{+225}_{-399}$ | $4.5 \pm 0.10$ | | | | | $0.801^{+0.338}_{-0.240}$ | $0.310^{+0.345}_{-0.168}$ | | | |
| GaiaDR35314960460454288768 | $39000^{+6965}_{-3544}$ | $5.37 \pm 0.16$ | $5.91^{+0.08}_{-0.08}$ | $-11.239^{+0.031}_{-0.039}$ | $0.091^{+0.007}_{-0.005}$ | $1.02 \pm 0.03$ | $0.125^{+0.012}_{-0.012}$ | $33.985^{+30.393}_{-12.783}$ | sdOB | 0.000 | $11.58^{+2.96}_{-7.07}$ |
| | $2300^{+959}_{-0}$ | $4.5 \pm 0.10$ | | | | | $0.416^{+0.077}_{-0.123}$ | $0.006^{+0.011}_{-0.003}$ | | | |
| GaiaDR35477442199990194432 | $39000^{+16000}_{-6903}$ | $5.39 \pm 0.15$ | $6.11^{+0.14}_{-0.15}$ | $-11.321^{+0.060}_{-0.082}$ | $0.080^{+0.028}_{-0.028}$ | $1.06 \pm 0.03$ | $0.100^{+0.016}_{-0.017}$ | $22.057^{+60.227}_{-13.551}$ | sdOB | 0.046 | $4.77^{+4.52}_{-3.89}$ |
| | $2300^{+1705}_{-0}$ | $4.5 \pm 0.10$ | | | | | $0.225^{+0.092}_{-0.087}$ | $0.002^{+0.010}_{-0.001}$ | | | |
| CD-243988 | $39491^{+11554}_{-4346}$ | $5.37 \pm 0.15$ | $5.91^{+0.10}_{-0.13}$ | $-10.602^{+0.046}_{-0.072}$ | 0.058 | $4.39 \pm 0.08$ | $0.126^{+0.014}_{-0.019}$ | $36.430^{+59.608}_{-17.031}$ | sdOB | 0.012 | $77.85^{+29.72}_{-14.24}$ |
| | $5715^{+70}_{-66}$ | $4.5 \pm 0.10$ | | | | | $1.116^{+0.227}_{-0.196}$ | $1.198^{+0.541}_{-0.386}$ | | | |
| GaiaDR35318890115006124672 | $40315^{+14685}_{-9395}$ | $5.37 \pm 0.15$ | $5.97^{+0.18}_{-0.15}$ | $-11.312^{+0.079}_{-0.080}$ | $0.267^{+0.036}_{-0.039}$ | $0.92 \pm 0.03$ | $0.117^{+0.025}_{-0.020}$ | $34.437^{+85.022}_{-23.904}$ | sdO | 0.073 | $30.63^{+18.91}_{-19.71}$ |
| | $2300^{+993}_{-0}$ | $4.5 \pm 0.10$ | | | | | $0.649^{+0.236}_{-0.224}$ | $0.016^{+0.033}_{-0.010}$ | | | |
| EC04369-4616 | $40653^{+3773}_{-1992}$ | $5.37 \pm 0.15$ | $5.63^{+0.06}_{-0.06}$ | $-11.152^{+0.017}_{-0.020}$ | $0.000^{+0.022}_{-0.000}$ | $0.90 \pm 0.04$ | $0.173^{+0.013}_{-0.012}$ | $76.266^{+32.119}_{-18.228}$ | sdO | 0.001 | $26.15^{+2.32}_{-1.91}$ |
| | $5182^{+73}_{-107}$ | $4.5 \pm 0.10$ | | | | | $0.888^{+0.075}_{-0.068}$ | $0.508^{+0.097}_{-0.082}$ | | | |
| GaiaDR32899766827964264192 | $40718^{+11884}_{-10849}$ | $5.39 \pm 0.15$ | $5.86^{+0.30}_{-0.13}$ | $-10.928^{+0.130}_{-0.069}$ | 0.047 | $1.97 \pm 0.02$ | $0.134^{+0.045}_{-0.021}$ | $48.006^{+99.963}_{-35.147}$ | sdO | 0.054 | $23.58^{+9.65}_{-11.66}$ |
| | $7000^{+0}_{-86}$ | $4.5 \pm 0.10$ | | | | | $0.651^{+0.247}_{-0.191}$ | $0.898^{+0.811}_{-0.451}$ | | | |
| EC05407-6022 | $41493^{+13360}_{-4202}$ | $5.37 \pm 0.15$ | $5.90^{+0.07}_{-0.10}$ | $-11.128^{+0.027}_{-0.054}$ | $0.027^{+0.040}_{-0.027}$ | $1.29 \pm 0.02$ | $0.127^{+0.011}_{-0.015}$ | $45.547^{+84.826}_{-19.437}$ | sdO | 0.000 | $50.31^{+14.03}_{-5.75}$ |
| | $4559^{+68}_{-75}$ | $4.5 \pm 0.10$ | | | | | $0.912^{+0.131}_{-0.117}$ | $0.323^{+0.103}_{-0.080}$ | | | |
| GaiaDR35493446656886309504 | $42000^{+13000}_{-12075}$ | $5.44 \pm 0.15$ | $5.72^{+0.34}_{-0.17}$ | $-11.185^{+0.147}_{-0.087}$ | 0.241 | $0.94 \pm 0.02$ | $0.157^{+0.061}_{-0.031}$ | $73.008^{+173.973}_{-55.909}$ | sdO | 0.004 | $18.11^{+8.34}_{-8.51}$ |
| | $6899^{+527}_{-674}$ | $4.5 \pm 0.10$ | | | | | $0.666^{+0.295}_{-0.207}$ | $0.867^{+1.083}_{-0.498}$ | | | |
| GaiaDR35536165466764699264 | $47724^{+7275}_{-11612}$ | $5.53 \pm 0.15$ | $6.28^{+0.19}_{-0.17}$ | $-11.509^{+0.080}_{-0.090}$ | $0.179^{+0.093}_{-0.122}$ | $0.84 \pm 0.03$ | $0.082^{+0.018}_{-0.016}$ | $28.415^{+33.167}_{-19.121}$ | sdO | 0.000 | $57.23^{+39.02}_{-18.48}$ |
| | $5443^{+77}_{-107}$ | $4.5 \pm 0.10$ | | | | | $0.630^{+0.223}_{-0.169}$ | $0.311^{+0.261}_{-0.146}$ | | | |
| GaiaDR35483995358011225472 | $50841^{+4158}_{-15590}$ | $5.63 \pm 0.15$ | $6.43^{+0.19}_{-0.10}$ | $-11.605^{+0.090}_{-0.034}$ | $0.097^{+0.021}_{-0.035}$ | $0.81 \pm 0.04$ | $0.069^{+0.015}_{-0.008}$ | $26.381^{+19.920}_{-19.547}$ | sdO | 0.052 | $60.17^{+35.42}_{-28.90}$ |
| | $2500^{+461}_{-199}$ | $4.5 \pm 0.10$ | | | | | $0.552^{+0.177}_{-0.158}$ | $0.012^{+0.014}_{-0.006}$ | | | |
| GaiaDR32883459794914510848 | $50976^{+4023}_{-7472}$ | $5.69 \pm 0.15$ | $5.70^{+0.09}_{-0.06}$ | $-11.026^{+0.042}_{-0.023}$ | 0.052 | $1.31 \pm 0.02$ | $0.161^{+0.016}_{-0.011}$ | $154.129^{+72.811}_{-70.798}$ | sdO | 0.006 | $21.51^{+2.79}_{-3.71}$ |
| | $5575^{+132}_{-138}$ | $4.5 \pm 0.10$ | | | | | $0.744^{+0.090}_{-0.081}$ | $0.480^{+0.135}_{-0.107}$ | | | |

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|---|---|---|---|---|---|---|---|---|---|---|---|
| LB1741 | $52101^{+2898}_{-5984}$ | $5.70 \pm 0.15$ | $5.73^{+0.06}_{-0.04}$ | $-10.929^{+0.031}_{-0.015}$ | 0.004 | $1.69 \pm 0.05$ | $0.155^{+0.011}_{-0.008}$ | $157.245^{+51.153}_{-58.872}$ | sdO | 0.000 | $12.57^{+1.17}_{-1.56}$ |
| | $4611^{+131}_{-157}$ | $4.5 \pm 0.10$ | | | | | $0.550^{+0.048}_{-0.043}$ | $0.122^{+0.028}_{-0.023}$ | | | |
| GaiaDR35561999385810491264 | $53075^{+1925}_{-15044}$ | $5.77 \pm 0.15$ | $6.33^{+0.19}_{-0.07}$ | $-11.453^{+0.095}_{-0.015}$ | 0.079 | $1.03 \pm 0.03$ | $0.078^{+0.017}_{-0.006}$ | $39.584^{+20.218}_{-27.514}$ | sdO | 0.029 | $16.81^{+3.46}_{-4.74}$ |
| | $4534^{+372}_{-890}$ | $4.5 \pm 0.10$ | | | | | $0.322^{+0.070}_{-0.053}$ | $0.035^{+0.028}_{-0.021}$ | | | |
| GaiaDR35511947280053127680 | $54011^{+988}_{-21986}$ | $5.80 \pm 0.15$ | $5.93^{+0.29}_{-0.09}$ | $-11.318^{+0.138}_{-0.021}$ | $0.103^{+0.023}_{-0.041}$ | $0.90 \pm 0.03$ | $0.124^{+0.041}_{-0.013}$ | $98.396^{+70.588}_{-82.570}$ | sdO | 0.089 | $32.06^{+11.24}_{-23.45}$ |
| | $2300^{+910}_{-0}$ | $4.5 \pm 0.10$ | | | | | $0.712^{+0.236}_{-0.228}$ | $0.018^{+0.037}_{-0.010}$ | | | |
| GALEXJ05396-2833 | $56544^{+18455}_{-5544}$ | $5.84 \pm 0.15$ | $5.95^{+0.09}_{-0.12}$ | $-11.293^{+0.030}_{-0.071}$ | 0.023 | $0.92 \pm 0.04$ | $0.120^{+0.013}_{-0.017}$ | $142.292^{+265.242}_{-63.284}$ | sdO | 0.000 | $63.40^{+24.40}_{-8.15}$ |
| | $5913^{+87}_{-101}$ | $4.5 \pm 0.10$ | | | | | $0.976^{+0.181}_{-0.155}$ | $1.044^{+0.431}_{-0.310}$ | | | |
| EC05382-5637 | $64310^{+10690}_{-13309}$ | $6.06 \pm 0.15$ | $6.01^{+0.15}_{-0.12}$ | $-11.595^{+0.060}_{-0.040}$ | 0.058 | $0.51 \pm 0.02$ | $0.112^{+0.020}_{-0.015}$ | $190.847^{+200.419}_{-116.671}$ | sdO | 0.000 | $192.68^{+37.20}_{-45.77}$ |
| | $5571^{+44}_{-44}$ | $4.5 \pm 0.10$ | | | | | $1.542^{+0.323}_{-0.268}$ | $2.063^{+0.957}_{-0.656}$ | | | |
| GaiaDR32884515983209409152 | $115000^{+0}_{-25865}$ | $6.60 \pm 0.15$ | $6.66^{+0.14}_{-0.07}$ | $-11.671^{+0.078}_{-0.005}$ | 0.046 | $0.92 \pm 0.02$ | $0.053^{+0.009}_{-0.004}$ | $384.803^{+140.118}_{-219.197}$ | sdO | 0.000 | $281.58^{+3.40}_{-84.76}$ |
| | $6112^{+47}_{-44}$ | $4.5 \pm 0.10$ | | | | | $0.858^{+0.138}_{-0.117}$ | $0.926^{+0.324}_{-0.237}$ | | | |
| GaiaDR35517247368476550016 | $115000^{+0}_{-36455}$ | $6.60 \pm 0.15$ | $5.78^{+0.16}_{-0.07}$ | $-11.284^{+0.088}_{-0.002}$ | $0.172^{+0.006}_{-0.011}$ | $0.83 \pm 0.03$ | $0.147^{+0.027}_{-0.012}$ | $2827.156^{+1181.850}_{-2062.258}$ | sdO | 0.004 | $17.40^{+4.87}_{-3.09}$ |
| | $3700^{+322}_{-402}$ | $4.5 \pm 0.10$ | | | | | $0.627^{+0.128}_{-0.088}$ | $0.066^{+0.044}_{-0.027}$ | | | |
| GaiaDR32885588247565266176 | $115000^{+0}_{-40000}$ | $6.60 \pm 0.15$ | $6.45^{+0.25}_{-0.06}$ | $-11.488^{+0.127}_{-0.002}$ | 0.042 | $1.12 \pm 0.01$ | $0.067^{+0.019}_{-0.005}$ | $612.706^{+327.036}_{-470.727}$ | sdO | 0.000 | $304.24^{+7.59}_{-133.01}$ |
| | $6712^{+64}_{-92}$ | $4.5 \pm 0.10$ | | | | | $1.129^{+0.288}_{-0.219}$ | $2.319^{+1.335}_{-0.819}$ | | | |

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# Erklärung

Hiermit versichere ich, dass ich die vorliegende Arbeit selbstständig verfasst und keine anderen als die angegebenen Quellen und Hilfsmittel benutzt habe, dass alle Stellen der Arbeit, die wörtlich oder sinngemäß aus anderen Quellen übernommen wurden, als solche kenntlich gemacht sind und dass die Arbeit in gleicher oder ähnlicher Form noch keiner Prüfungsbehörde vorgelegt wurde.

Erlangen, den 10. Mai 2024

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