

RESEARCH ARTICLE | MARCH 10 2021

# Photometric solution of visual binary system: HIP57894

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The best individual stellar parameters of the close visual binary system “HIP 57894” using the synthetic photometric solution based on Al-Wardat’s complex method are presented. The best match between the synthetic and observed stellar photometry is presented based on the best entire and individual synthetic spectral energy distributions which are constructed by utilizing Atlas9 model atmospheres and two special subroutines of Al-Wardat’s method. From the best synthetic photometric solution, we determine the individual masses and radii as:  $M_A = 1.22 \pm 0.18 M_\odot$ ,  $R_A = 1.328 \pm 0.04 R_\odot$  and  $M_B = 0.99 \pm 0.14 M_\odot$ ,  $R_B = 0.975 \pm 0.03 R_\odot$  for the primary and secondary components of the system, respectively. The system depend on the recently published Gaia parallax and the isochrones tracks of the component’s system are discussed.

Topics

[Geographic information systems](#), [Photometry](#), [Visual binaries](#), [Scholarly publishing](#)

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