

V1327 aquilae: A new RR Lyrae variable with an extremely high radial velocity

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Abstract

We have carried out photometry and spectroscopy of the star V1327 Aql ($R = 16 \text{ m}$) as part of our program of observations of poorly studied cataclysmic variables using the 1.5-m optical Russian-Turkish telescope (RTT-150, Turkey) and the 6-m telescope of the Special Astrophysical Observatory of the Russian Academy of Sciences. After analyzing our photometry, we have reclassified the variable as an RR Lyrae star. Our BV R photometry during 10 nights reveals brightness variations with the period 12 h 49 m, with the B, V, and R amplitudes being 1.36 m, 1.13 m, and 1.11 m, respectively. We derived the first estimates of the star's atmospheric parameters from our moderate-resolution spectra: $T_{\text{eff}} = 6280 \text{ K}$, $\log g = 3.3$, $[M/H] = -1.05$. The extremely high radial velocity of the star's motion ($V_R = -470 \text{ km/s}$) and the star's large distances to the Galactic center (13.1 kpc) and disk (4.2 kpc) testify to a probable extragalactic origin of this object. © 2008 Pleiades Publishing, Ltd.

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