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HD 168740: A NEW VARIABLE λ BOOTIS STAR

We report the discovery of pulsation in the λ Bootis star HD 168740. Observations were made in the nights of 21/22 April and 23/24 April 1995 at CTIO, Chile with the Lowell-telescope. The integration time was 10 seconds in Strömgen *b* and *v*. HD 167425 ($V=6.2$, F9V) was used as a comparison star in both nights.

λ Bootis stars are a group of metal poor, Population I, A-type stars. Their evolutionary status is not well known (Paunzen et al., 1995). HD 168740 was found by Hauck (1986) as a photometric λ Bootis star candidate in the Geneva system. Recent spectroscopic observations with the 24-inch Helen-Sawyer-Hogg telescope located at Las Campanas, Chile confirm the membership to the λ Bootis group.

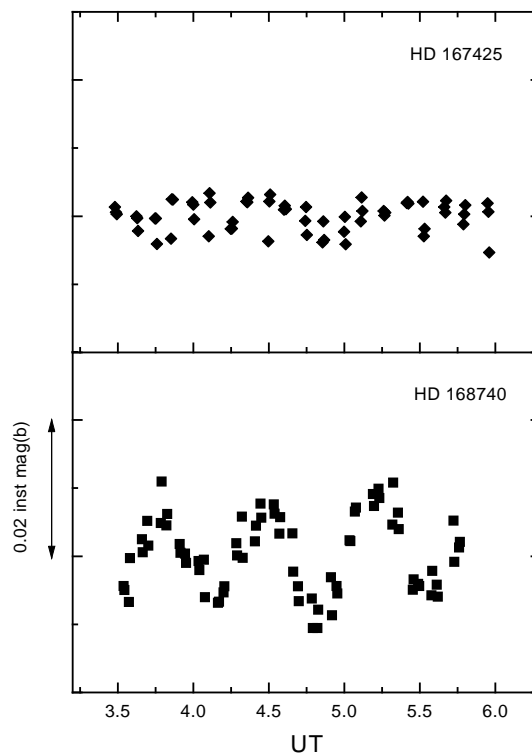


Figure 1. The lightcurve for HD 168740 and HD 167425 for the second night in instrumental Strömgen *b*.

The photometric observations were made during a multisite campaign for HD 111786 (Kuschnig et al., 1994). Therefore the dataset is rather short but sufficient to establish variability. We found a period of about 52 minutes with an amplitude of 16 mmag in Strömgren *b*. Amplitude variations are evident (Figure 1), therefore the values for the period and amplitude are preliminary. From hitherto 25 photometrically investigated λ Bootis stars, 13 proved to be variable (Paunzen et al., 1995). The observed periods range from 30 minutes to 4 hours.

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E. PAUNZEN*
B. DUFFEE**

* Institut für Astronomie, Türkenschanzstraße 17, A-1180 Wien, Austria
e-mail: paunzen@astro.ast.univie.ac.at

** Las Campanas Observatory, Chile e-mail: boyd@charlie.ctio.noao.edu

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