

Ground-Based Observations of Short- and Medium-Period Variables Discovered by the Hipparcos Satellite

L. L. Kiss, B. Csák

*Department of Experimental Physics & Astronomical Observatory,
JATE University, H-6720 Szeged, Dóm tér 9., Hungary*

E. J. Alfaro

Instituto de Astrofísica de Andalucía – CSIC, Granada, Spain

J. Vinkó

*Department of Optics and Quantum Electronics, JATE University,
H-6720 Szeged, Dóm tér 9., Hungary*

Abstract. We present the results of follow-up ground-based photometric and spectroscopic observations of a sample of variable stars discovered by the Hipparcos satellite.

We started a long-term project of follow-up observations of the newly discovered bright Hipparcos variables. Here we summarize the first results on three Hipparcos “RRc” variables and one classical Cepheid. Photoelectric observations were carried out using the 0.4-m telescope of Szeged Observatory ($UBV - uvby$) and 0.9-m telescope at Sierra Nevada Observatory ($uvby - \beta$). Medium- and high-resolution spectroscopic observations were made at David Dunlap Observatory. The simultaneous photometry and spectroscopy lead to the following results:

- a) DX Ceti is a high-amplitude δ Scuti star (Kiss et al. 1999a);
- b) V2109 Cyg is the shortest period RR Lyrae variable, pulsating most probably in the second overtone (Kiss et al. 1999b);
- c) HV UMa is a contact binary with early-type components (Csák et al. 1999);
- d) the Baade–Wesselink radius of CK Cam is $31 \pm 1 R_{\odot}$ (Kiss & Vinkó 2000).

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References

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