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1987 AMPLITUDE CHANGES OF II Peg LIGHT CURVE

The RS CVn type star II Peg (HD 224085, BD +27^o4642) has been photometrically observed since 1986 using a 0.4m telescope with a solid-state photometer at Mollet Observatory, Barcelona (Spain).

From 3 to 11 December 1986 we made differential photometric measurements with the B and V filters using HR 8997 and BD +28^o4667 as comparison star and check star, respectively. We continued these observations in 1987 with BVRI filters (Johnson system) using HD 223332 as comparison star by checking it with HR 8997 on several nights.

The resulting BVRI light curves obtained during the period 12 September - 18 October 1987, are plotted in Figure 1. The orbital phases were calculated according to the ephemeris of Vogt (1981):

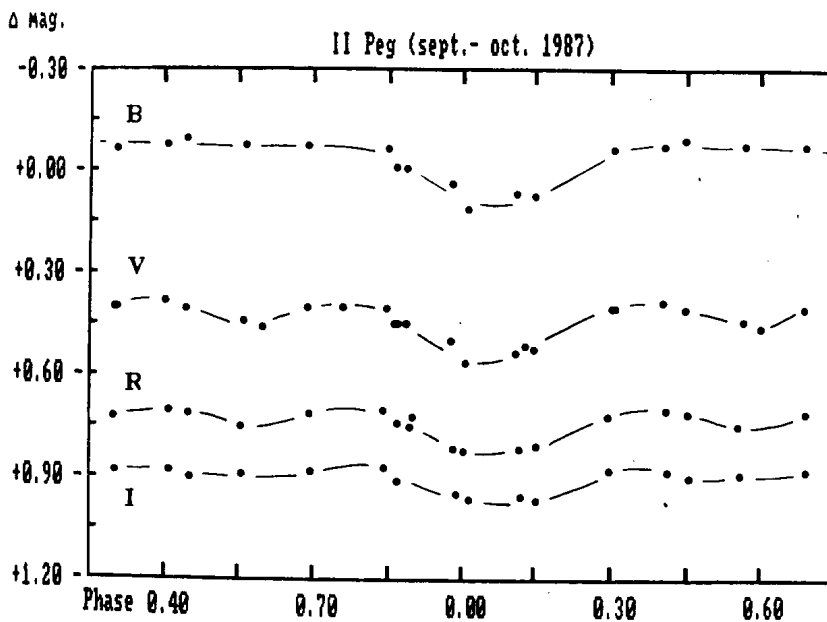


Figure 1

$$\text{HJD} = 2443033.47 + 6^{\text{d}}.72422 \text{ E}$$

Regarding Byrne (1986), Cutispoto et al. (1987), Mekkaden (1987), and our own observations (December 1986, unpublished information) which match the observations of Cutispoto et al., the current V light curve shows an important amplitude decrease due to a lower maximum and an upper minimum. That is, a variation of the amplitude in V from 0.5 to 0.15 magnitudes has occurred within only a few months.

Such a fast change, as the present one, has not been noticed in the past with the exception, perhaps, in 1978 (Poe and Eaton, 1985), although a complete light curve of II Peg was not available in that year.

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References:

- Byrne, B.P.: 1986, Inf. Bull. Var. Stars, No. 2951
Cutispoto, G., Leto, G., Pagano, I., Santagati, G., Ventura, R.: 1987, Inf. Bull. Var. Stars, No. 3034
Mekkaden, M.V.: 1987, Inf. Bull. Var. Stars, No. 3043
Poe, C.M., Eaton, J.A.: 1985, Astrophys. J. 289, 649.
Vogt, S.S.: 1981, Astrophys.J. 247, 975