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PHOTOMETRY OF HD 153747

HD 153747 was found to be variable by McKay (1973) and tentatively identified as a δ Sct star by McInally and McKay (1977).

We observed the star for five hours on the night of 1976 August 23 on the 60 cm telescope at the Mt John University Observatory. Observations were made using the multicolor photometer described elsewhere (Bringans, Sullivan and Trodahl 1974), modified to include three discrete filters admitting 100 Å wide bands centered on 3400 Å, 3500 Å and 3600 Å. The comparison star was HD 153767.

Because the amplitude of the light curve is relatively small we have averaged our data over a number of bands, resulting in three approximately square effective transfer functions covering the wavelength ranges of 3350 - 3650 Å, 3900 - 4400 Å and 4550 - 5050 Å. In order to minimize differential extinction the averaging over adjacent passbands was done after making extinction corrections.

The results are shown graphically in Figure 1. The amplitude in the blue band varied from about 0.01 magnitudes early in the night to almost 0.04 magnitudes shortly before the star set. The colour indices show little variation, though there is a suggestion the star is bluer at maximum light than at minimum.

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References:

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McInally, C.J., and McKay, B.J. 1977, IBVS, No. 1257
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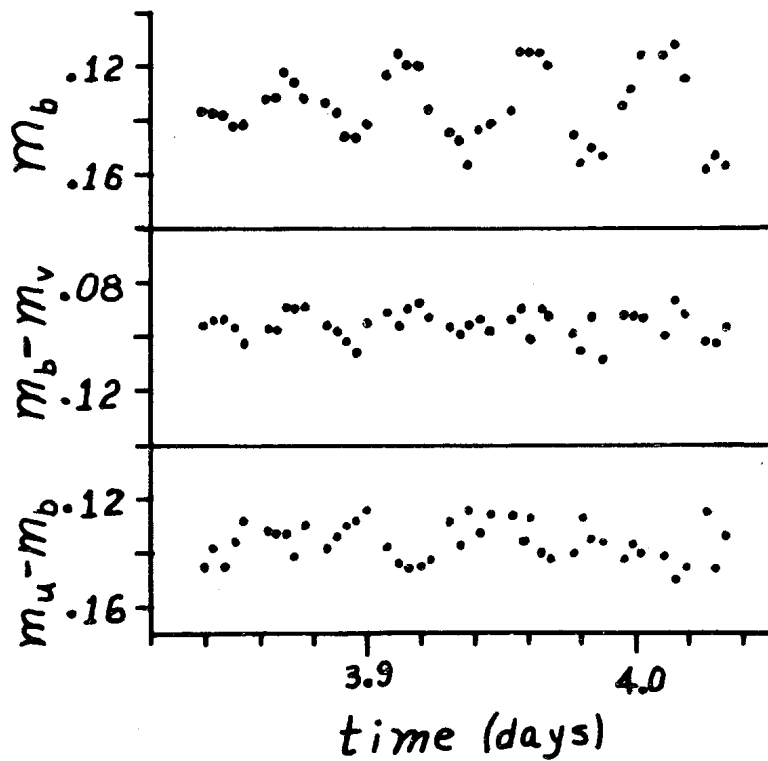


Fig.1 Magnitude and colour variations.

m_u , m_b , m_v refer to the magnitudes in the ultraviolet (3350 - 3650 Å), blue (3900 - 4400 Å) and visual (4550 - 5050 Å) mentioned in the text.

The time is given relative to JD 2443010. All magnitudes given are relative to the standard star,