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ON THE VARIABILITY OF THE SUSPECTED BETA CEPHEI STARS
V351, V356, V357 Per

Hill (1967) has listed a number of suspected Beta Cephei stars. Out of these the stars V351 Per (HD 13051), V356 Per (BD 56^o473) and V357 Per (HD 13866) were put on our observing programme, in order to determine their variability.

These stars were observed on a total of five nights between October 1978 to December 1978, on the 104-cm telescope of the Uttar Pradesh State Observatory, Naini Tal, using EMI 6094S photomultiplier tube cooled to -20°C and B filter of the Johnson and Morgan system. The star HD 12994 was used as a comparison star. The magnitudes were corrected for atmospheric extinction using nightly extinction coefficients. The differential magnitudes (Comparison-Variable) of V351, V356, V357 Per have been plotted against J.D. (Hel.) in Figs. 1, 2 and 3, respectively.

From Figs. 1, 2 and 3 it is clear that none of the three stars show any systematic variation. The B magnitude of these stars are constant within ± 0.01 which can be attributed to observational scatter. Therefore, we conclude that the stars V351 Per, V356 Per and V357 Per are not Beta Cephei variables.

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Reference:

Hill, G. 1967, *Astrophys. J. Suppl. Ser.* 14, 263

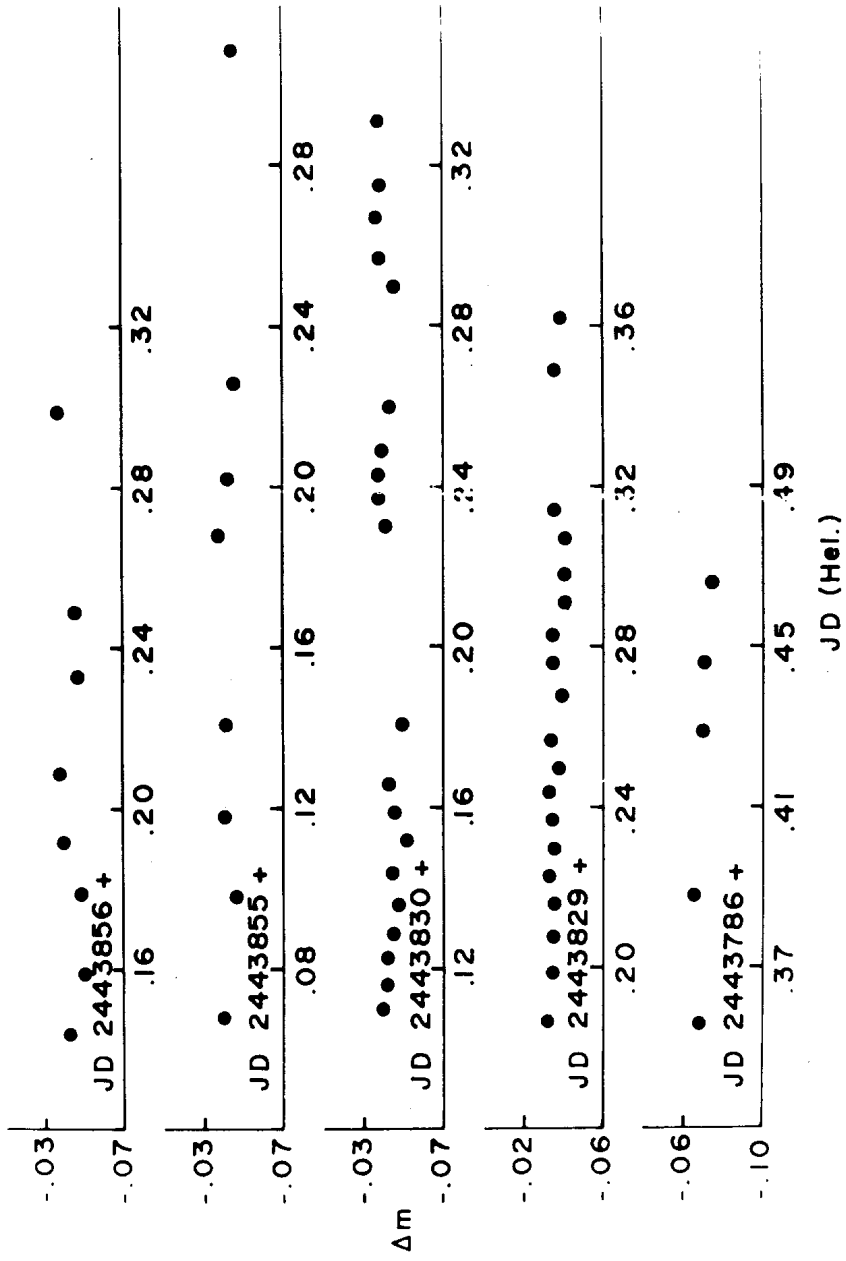


Fig. 1. Light curves of V351 Per.

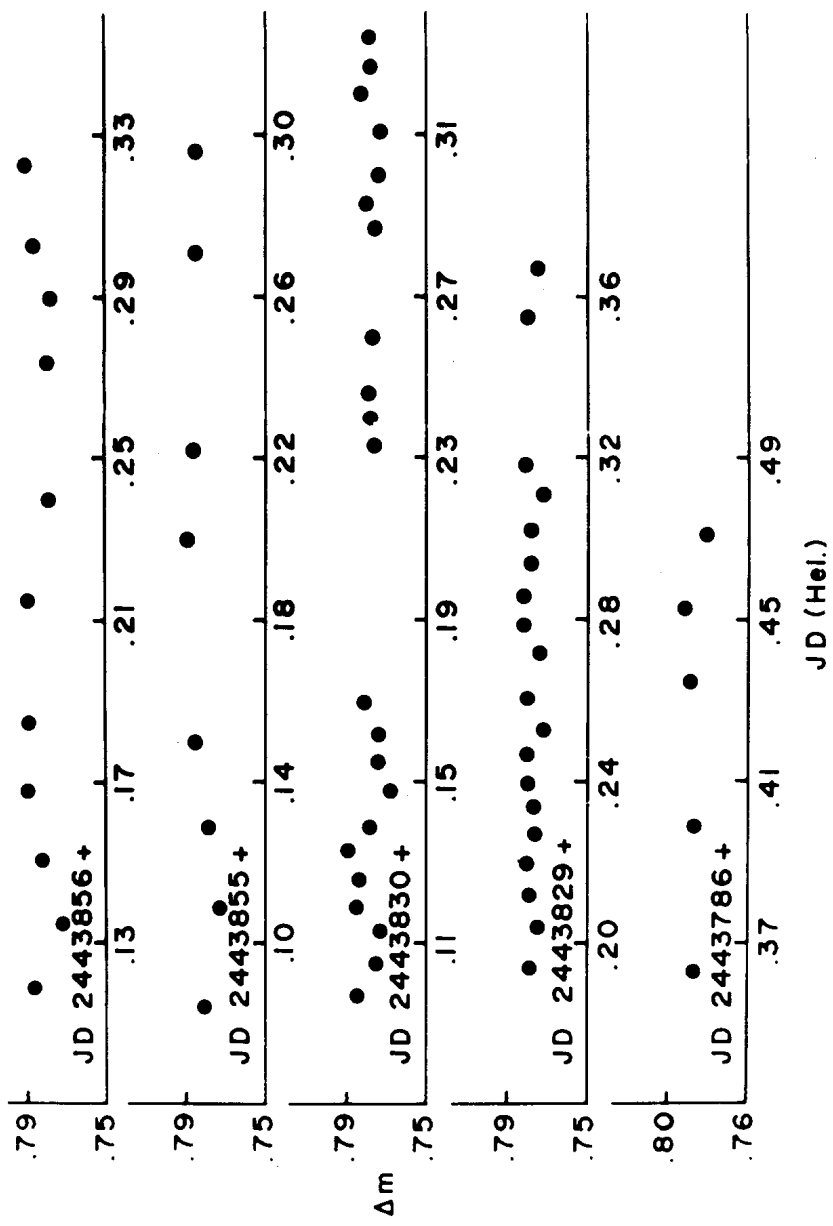


Fig. 2. Light curves of V356 Per.

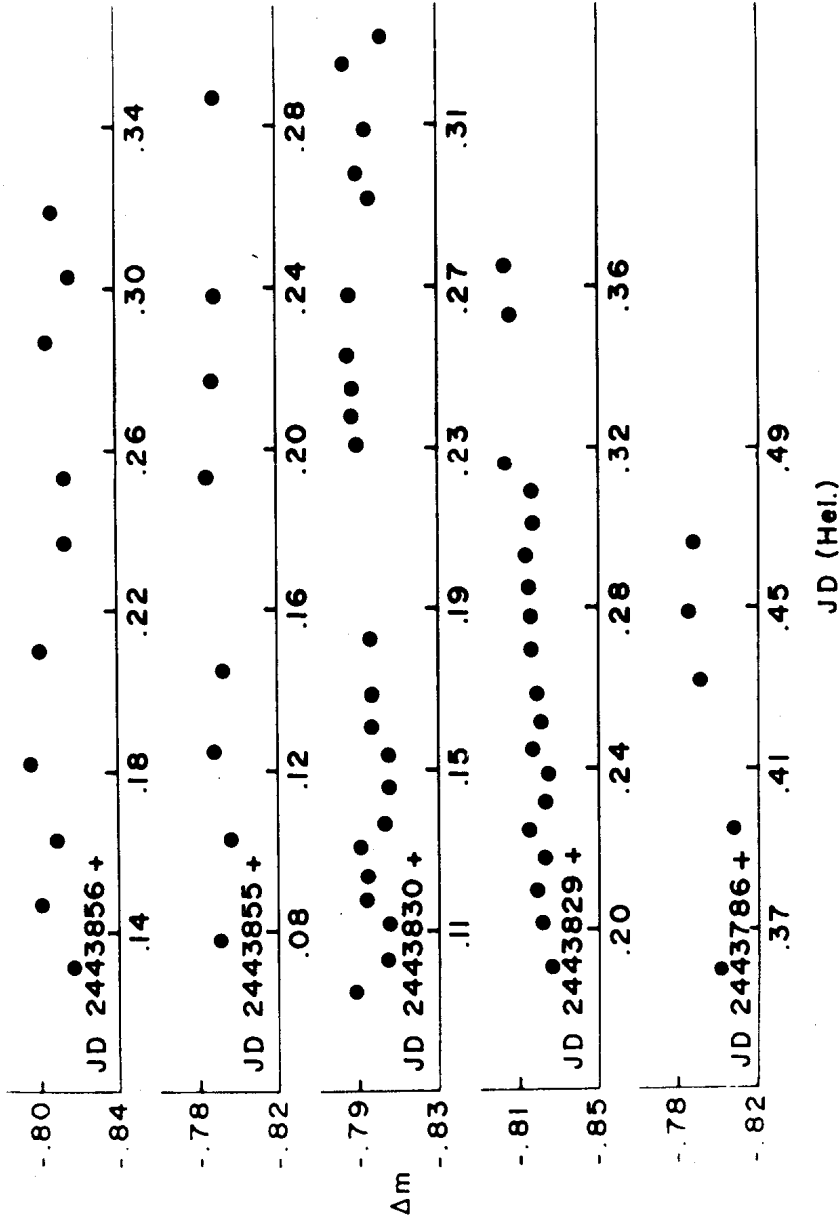


Fig. 3. Light curves of V357 Per.