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HR 4668 : A NEW BRIGHT VARIABLE STAR

Between April 18 and April 27, 1977 photometric measurements of the Delta Scuti star HR 4684 were made with the 60 cm telescope at Haute Provence Observatory.

As comparison stars HR 4668 and HR 4694 were used. These stars were used earlier by Elliott (1974) as comparison stars for HR 4684.

Due to the relatively poor weather conditions, good measurements could be obtained only on April 19, 23, 24 and 25.

In order to eliminate the influence of variable extinction, we increased the observing speed by using the Johnson B filter only.

Figure 1 shows the magnitude differences HR 4668 - HR 4694 during the four observing nights of acceptable quality.

The error bars indicate the dispersion of the magnitude differences between the other comparison star HR 4694 and the small-amplitude variable HR 4684. In this way the mean error indicated is an overestimation of the real mean error. The diagrams show that HR 4668 is variable on a time scale of several hours. The nightly mean values in table 1 however do not reveal night-to-night variability.

JD 244	n	Δm
3253.5	7	-0.395
3257.5	5	-0.388
3258.5	5	-0.377
3259.5	23	-0.388

Table 1. The nightly mean values of the magnitude differences HR 4668 - HR 4694. n denotes the number of measurements.

Acknowledgements

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Reference:

Elliott, J.E. : *Astronomical Journal* 79, 1082, 1974.

HR 4668 - HR 4694

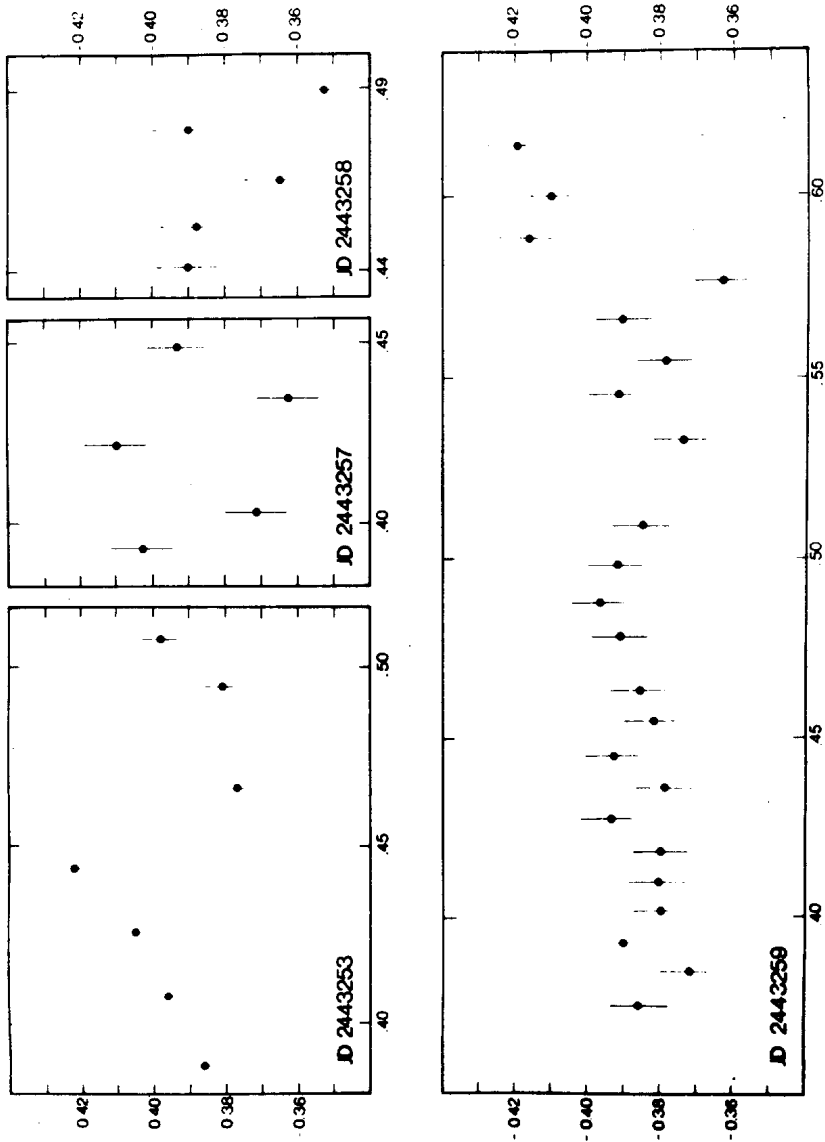


Fig. 1. Differential B measurements of HR 4668 during the four observing nights.