

COMMISSION 27 OF THE I. A. U.  
INFORMATION BULLETIN ON VARIABLE STARS

Number 3267

Konkoly Observatory  
Budapest  
23 November 1988  
HU ISSN 0374-0676

PHOTOELECTRIC UBV LIGHT CURVES OF RT And

The star RT And has been classified by Hall (1976) as an object belonging to a "Short-Period Group" with properties similar to the RS CVn group.

Mancuso et al. (1979a) have published a series of V light observations for the years 1972, 1973, 1974 where a complete historical review of the star's observations are also presented.

The star was observed photoelectrically with the 1.2 m Kryonerion telescope from 26 Sep. 1988 to 19 Oct. 1988 through a single channel photon counting photometer described by Dapergolas and Korakitis (1987). The photometer employs a high gain 9789 QB phototube and UBV conventional filters. Its output is fed directly to a microcomputer enabling rapid data access.

The data reduction method is the standard one, comparison and check stars are BD +52° 3384 and BD +52° 3377 and the accuracy of the observations presented here is ±0.015 mag for V, B and ±0.025 for U.

The observations have been reduced using the ephemeris:

$$\text{Min. I} = 2443732.4498 + 0^{\text{d}}.62892965 \cdot E$$

given by Mancuso et al. (1979b). Table I lists the dates of observations and phases covered whereas Figures 1, 2 and 3 summarise the results for U, B, V (Var. - Comp. star).

Table I

Date	Phase
26 Sep.	.42 - .62
28 Sep.	.38 - .81
29 Sep.	.87 - .34
18 Oct.	.19 - .47
19 Oct.	.75 - .98

Our light curves show asymmetry in the secondary minimum getting larger towards shorter wavelengths. A distortion wave with a minimum at about 0.7 - 0.8 phase is also present in our light curves. Zeilik et al. (1982) found this minimum at 0.8 phase.

The variability in the levels of maxima noticed by Mancuso et al. (1979a) have been noticed here as well comparing their observations and those presented here.

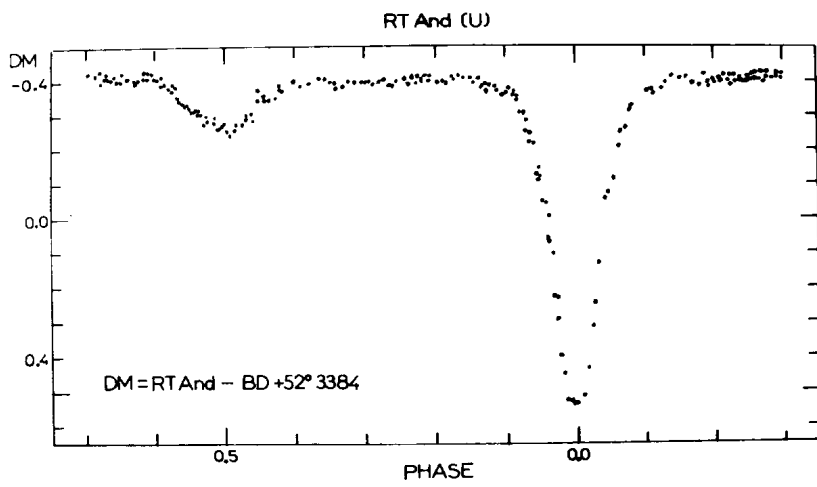


Figure 1

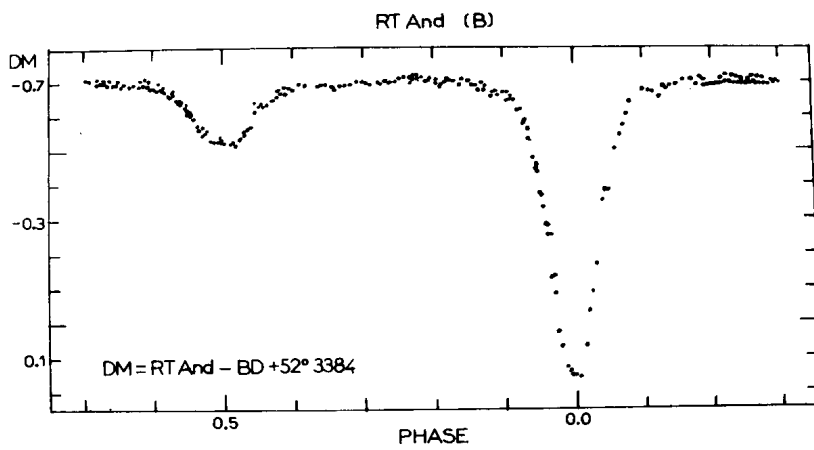


Figure 2

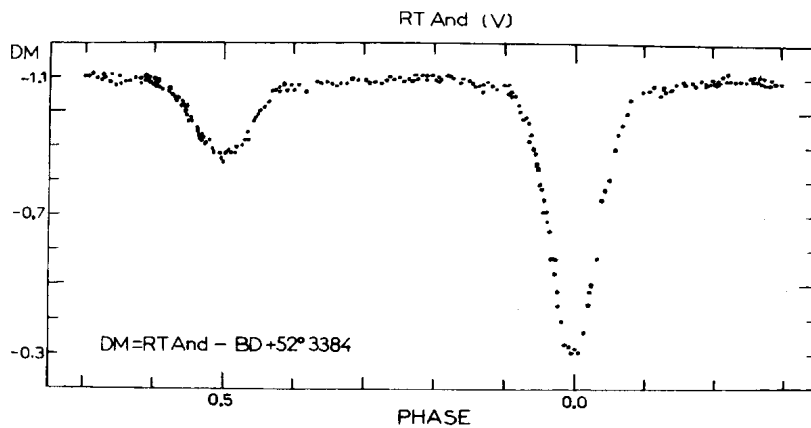


Figure 3

A. DAPERGOLAS, E. KONTIZAS  
 National Observatory of Athens  
 Astronomical Institute  
 P.O. Box 20048  
 GR Athens 118 10  
 Greece

M. KONTIZAS  
 University of Athens  
 Laboratory of Astrophysics  
 Panepistimioupolis  
 GR Athens 151 71  
 Greece

## References:

- Dapergolas, A., and Korakitis, R., 1987, Publ.Nat.Obs. of Athens, Ser. II, N28.
- Hall, D.S., 1976, in "Multiple Periodic Variable Stars", IAU Coll., No. 29, vol.I, p. 287, Reidel.
- Mancuso, S., Milano, L., and Russo, G., 1979a, Astron. Astrophys. Suppl. Ser., 36, 415.
- Mancuso, S., Milano, L., Russo, G., and Sollazzo, C., 1979b, Astron. Astrophys. Suppl. Ser., 38, 187.
- Zeilik, M., Elston, R., Henson, G., and Smith, P., 1982, in "Proc. of the southwest regional conference for Astronomy and Astrophysics" ed. Preston, F.G. and Rihard, S.P., Vol. VII, p. 15.

## AMENDMENT

In the No. 3246 issue of the IBVS both Figure 1 and Table I contain erroneous data. The correct version of the Figure and Table on HD 37020 is given below

Table I

$$a_1 \sin i = 0.171 \text{ AU}$$

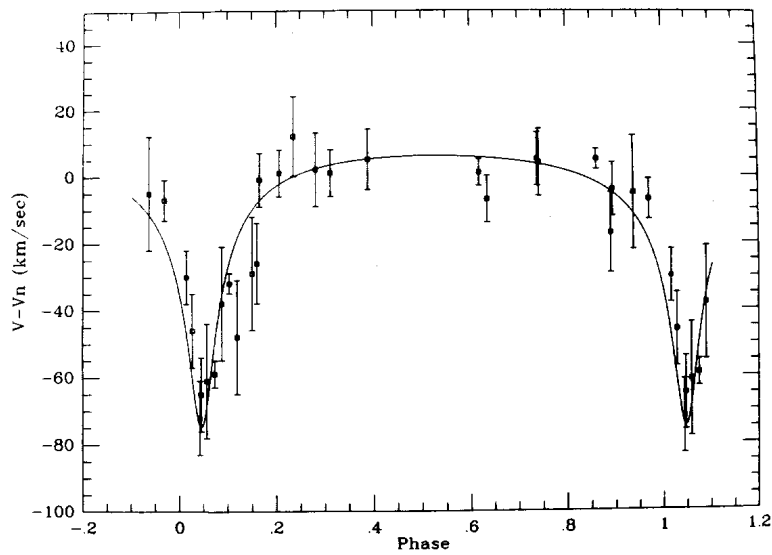
$$e = 0.709$$

$$\omega = 182^\circ$$

$$V_o = -5.8 \text{ km/sec} + V_n^{(**)}$$

$$T_o = \text{J.D. } 2444194.651$$

(\*\*)  $V_n$  is the radial velocity of the Orion Nebula



M. BOSSI, M. SCARDIA, M. TADINI  
 Osservatorio Astronomico di Brera  
 via E. Bianchi 46  
 22055 Merate  
 Italy