

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

Number 1341

Konkoly Observatory  
Budapest  
1977 September 23

o ANDROMEDAE: RADIAL VELOCITIES AND PROBABLE  
LONG PERIOD VARIATIONS

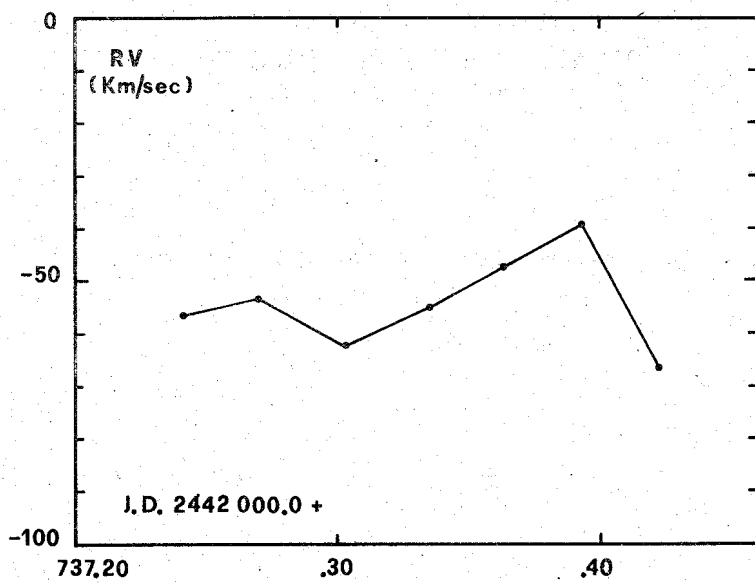
Referring to the I.B.V.S. No. 1296 (1977) by Harmanec et al. and to their conclusions, we point out what follows:

The probable period of 23 years obtained by us (Fracassini et al., 1977) is not depending on the radial velocity values of the years 1975, 1976. This fact is an obvious consequence of Lafler and Kinman's (1965) method adopted by us. Indeed the radial velocity values of the years 1900-1976 give  $P = 23^{\text{Y}}51$ , those of the years 1900-1974 give  $P = 23^{\text{Y}}50$ .

The comparison of the radial velocities of the period 1975-1976 January with those found in the literature since 1900, is not possible because at our knowledge radial velocities of the phase of the envelope ejection were never published. This is shown by the figure and by the table III reported respectively by Fracassini and Pasinetti (1975) and by Fracassini et al. (1977). The only radial velocities of a shell phase are those by Slettebak (1954) obtained from observations made three-five years after the envelope ejection. In particular, the radial velocities of 1949 are relative to a phase without H $\alpha$  emissions.

The figure 1 reported by Harmanec et al. shows notable variations of radial velocities in the same night: about 20 km/sec for the cores of the hydrogen lines and about 50 km/sec for the H $\gamma$  wings relative to the shell core. Analogous variations were found by us on 1975 November 20, during five hours of observation as reported in the Figure.

As to the differences between the absolute values of radial velocities found by us and by Harmanec et al., our checks have not shown any blunder. Therefore we agree with Harmanec et al. that it would be necessary to know the results of other observers.



M. FRACASSINI and L.E. PASINETTI  
 Osservatorio Astronomico di Milano-Merate  
 Via Brera n.28. 20121 MILANO, Italia

References:

- Fracassini, M., Pasinetti, L.E. 1975 IAU I.B.V.S. No.1044  
 Fracassini, M., Pasinetti, L.E. Pastori, L., 1977, *Astrophys. Spa.Sci.*, 49, 145  
 Lafler, J., Kinman, T.D., 1965, *Astrophys. J. Suppl.*, 100, 216  
 Slettebak, A., 1954, *Astrophys. J.*, 119, 460