

COMMISSIONS 27 AND 42 OF THE IAU
 INFORMATION BULLETIN ON VARIABLE STARS
 Number 3934

Konkoly Observatory
 Budapest
 10 September 1993
 HU ISSN 0324 - 0676

VZ CYGNI: A NEW SPECTROSCOPIC BINARY CEPHEID

According to the 4th edition of the GCVS, the classical Cepheid VZ Cyg has the period 4^d864453 (period changes have been noted) and varies in the range 8^m60--9^m28V. Its binarity was first suspected by Madore and Fernie (1980) from photometric data. Though some radial velocity measurements are available for the star in the literature (Joy, 1937; Barnes *et al.*, 1988), the star's spectroscopic binarity, to our knowledge, was not explicitly announced. Szabados (1991) notes possible γ -velocity changes but says that 'further radial velocity measurements are necessary to make a firm statement on this matter'.

Since 1992 we observe VZ Cyg in the frame of our programme (cf. Gorynya *et al.*, 1992) of Cepheid radial velocity measurements with Tokovinin's (1987) radial velocity meter. By early August, 1993 we have acquired 31 V_r measurements and found that VZ Cyg is a definite spectroscopic binary. Table 1 contains our V_r values, and Fig. 1 shows the radial velocity curve. Further observations are under way.

Table 1
 Radial velocities of VZ Cygni

JD hel. 244...	V_r	σ	JD hel. 244...	V_r	σ
8822.510	-33.3	0.5	8869.495	-1.6	0.4
8824.511	-14.9	0.5	8870.448	-15.2	0.5
8825.510	-4.8	0.5	8879.518	0.1	0.8
8827.508	-33.9	0.3	8880.436	-26.7	1.8
8830.520	-2.7	0.5	8886.416	-30.0	1.0
8831.505	-15.3	0.5	9191.507	-16.3	0.5
8832.476	-33.1	0.5	9194.465	-6.7	0.4
8833.473	-23.4	0.4	9195.490	2.4	0.6
8834.451	-12.4	0.3	9196.490	-17.9	0.6
8838.428	-22.3	0.4	9197.457	-26.4	0.6
8839.464	-11.0	0.4	9198.446	-15.7	0.4
8861.496	-31.5	0.5	9199.457	-4.7	0.5
8862.492	-23.0	0.5	9200.486	5.8	0.5
8863.481	-12.7	0.3	9201.463	-21.5	0.5
8864.451	-3.2	0.3	9202.489	-24.5	0.4
8866.495	-30.3	0.6			

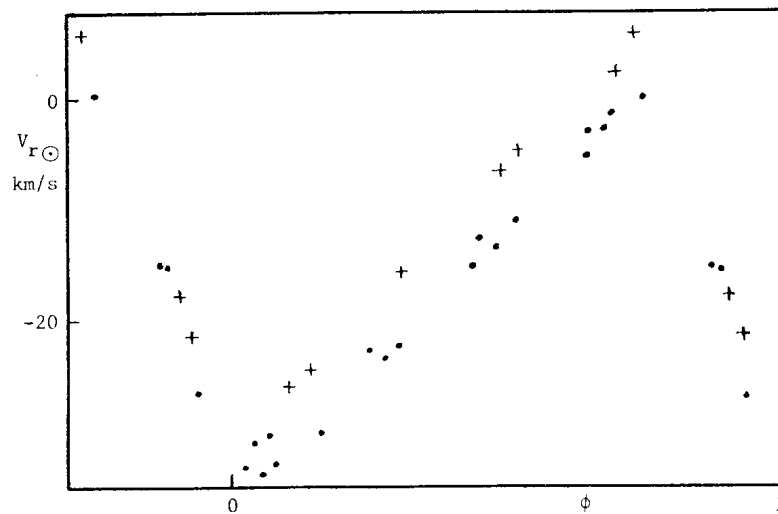


Figure 1. Radial velocity curve of VZ Cyg from our observations. Dots-1992, crosses-1993.

We are grateful to Dr. A. A. Tokovinin for the possibility to use his radial velocity meter. Thanks are due to the administration and the staff of the Simeiz Department of the Crimean Observatory for the telescope time and for assistance during observations. We also thank Mr. D. I. Neyachenko and Mr. O. S. Ugolnikov who helped at the telescope.

N. N. SAMUS
 N. A. GORYNYA
 Institute for Astronomy,
 Russian Acad. Sci
 48, Pyatnitskaya Str.,
 Moscow 109017, Russia

YU. V. KULAGIN
 A. S. RASTORGOUÉV
 Sternberg Astronomical Institute
 13, University Avenue,
 Moscow 119899, Russia

References:

- Barnes IV, T. G., Moffett, T. J., Slovak, M. H., 1988, *Ap. J. Suppl.*, **66**, 43
 Gorynya, N. A., Irmambetova, T. R., Rastorgouev, A. S., Samus, N. N., 1992, *Pisma v Astronomicheskij Zhurnal*, **18**, 777
 Joy, A. H., 1937, *Ap. J.*, **86**, 379
 Szabados, L., 1991, *Comm. Konkoly Obs.*, No. 96
 Tokovinin, A. A., 1987, *Soviet Astronomy*, **31**, 98