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THE SPECTROSCOPIC BINARITY OF MW CYGNI CONFIRMED

The Cepheid variable MW Cyg ($P=5^d954586$) was found by Szabados (1991) to be a new spectroscopic binary Cepheid candidate on the base of a considerable difference of γ -velocities among the observations published by Joy (1937), Struve (1945) and Barnes et al. (1988). Since July 1991 we have observed the star with the photoelectric radial velocity meter (CORAVEL type; Tokovinin, 1987). Our first 13 radial velocities for MW Cyg (obtained with the 1-m and 0.6-m telescopes in Simeiz and at Mt. Maidanak) have been included in the catalog of Cepheid radial velocities (Gorynya et al., 1992). We have compared these velocities with those analysed by Szabados and found reasonable agreement with the measurements by Barnes et al. (1988); the older radial velocities showed great scatter and seemed to us to be insufficient to judge on the star's binarity with certainty.

This summer we gathered 21 new radial velocity measurements of MW Cyg with the same equipment at the 1-m telescope of the Simeiz International Observatory (Crimea, the Ukraine). The Table contains the velocities measured in 1991-1992 with their internal r.m.s. error estimates. The Figure shows the radial velocity curve (dots-1991, crosses-1992) which definitely confirms the star's spectroscopic binarity. We have been able to mention the fact of the binarity confirmation in a note added in proof to our catalog (Gorynya et al., 1992).

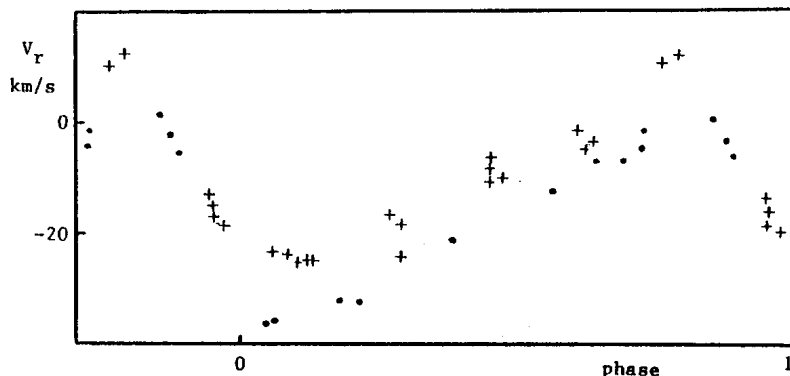


Figure 1. Radial velocity curve of MW Cyg from our observations.
Dots-1991, crosses-1992.

Table 1
Radial velocities of MW Cygni

HJD-2448000	V_r	σ	HJD-2448000	V_r	σ
453.506	-6.8	0.5	825.478	-25.0	0.5
495.428	-6.5	0.5	827.482	-7.7	0.4
496.450	1.4	0.7	830.498	-16.0	0.7
498.385	-32.2	0.6	831.466	-24.5	0.7
556.114	-2.2	1.0	832.443	-16.9	0.8
557.184	-36.4	1.0	833.434	-7.8	0.5
558.156	-32.3	0.6	834.428	-1.9	0.5
559.148	-20.5	0.6	835.476	12.2	0.5
561.166	-4.1	0.8	846.352	-2.2	0.4
562.144	-5.5	0.8	848.437	-18.5	0.6
563.143	-36.2	0.9	849.407	-24.6	0.5
566.187	-12.2	0.4	850.380	-23.8	0.7
567.135	-1.2	0.9	851.339	-10.5	0.4
795.428	-23.4	0.6	854.313	-17.0	0.7
807.487	-24.1	0.7	856.318	-18.6	0.5
823.405	10.8	0.8	857.372	-9.5	0.4
824.488	-13.6	0.9	858.373	-3.5	0.6

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