

## PERIODS FOR THREE VARIABLES IN CYGNUS

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Abstract

Periods have been determined for V540 Cygni, V838 Cygni and S4713.

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Three variables in Cygnus discovered by Beljawski (1936) have been examined on the available plates at the Maria Mitchell Observatory, spanning more than 50 years. No periods had previously been determined for these stars.

TABLE I

Three Variable Stars in Cygnus

<u>Star</u>	<u>Type</u>	<u>JD.</u>	<u>Period</u> <u>Days</u>	<u>Max.</u> <u>(pg)</u>	<u>Min.</u> <u>(pg)</u>	<u>Obs.</u>	<u>JD Interval</u>
V540 Cyg	M	2,443,250	361	12.4	14.8	750	2,424,684-2,443,670
V838 Cyg	RR	2,443,365.791	0.4802795	13.3	14.6	600	2,426,604-2,443,421
S4713	SR	2,443,380	187.5	13.9	14.8	600	2,424,684-2,443,703

For V838 Cyg the inverse period used to compute the phases was 2.082121. Figure 1 clearly shows its rapidly ascending branch and its slower descending branch with a magnitude range of 1.2 magnitudes, characteristic of a typical RR Lyrae star.

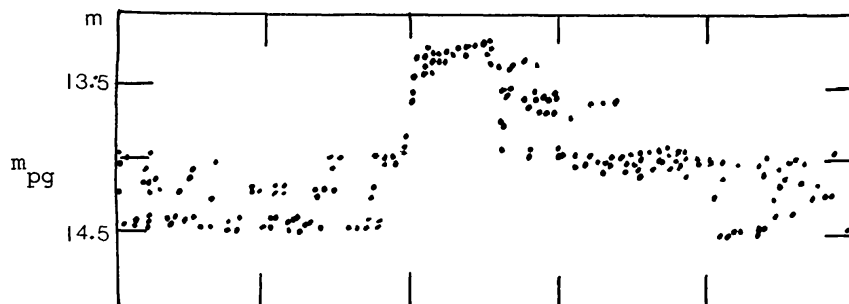


Figure 1. Observations of V838 Cyg plotted against phases computed from the reciprocal period  $2.082121(\text{days}^{-1})$ . Abscissa markers are at intervals of 0.2 period.

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REFERENCE

Beljawski, S. 1936, Perem. Zvezdy, 5, 36.