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1973 PHOTOMETRY OF V725 Sgr

The unique variable V725 Sgr was discovered by Swope (HA 105,499,1936) and re-observed in 1968 and 1969 by Demers (RASC Journ. 67,19,1973). In 1926 the variable exhibited a 12-day periodicity which increased by approximately one day per year, reaching a maximum period of 21 days in 1935. Since 1935, however, V725 Sgr has only shown non-periodic variations of low amplitude.

V725 Sgr was observed during 1973 to determine whether the star is slowly becoming systematically brighter, as suggested by the 1968 and 1969 observations. The variable was observed seven times by visiting and resident astronomers using the 24" (60 cm) reflector of the University of Toronto at the Las Campanas Observatory of the Carnegie Institute of Washington. The observations are given in Table I, where $\Delta V = V(725) - V(1)$. Photoelectric measures were made during regular observing sessions. Photographic plates (103a-D+RG495 and 103a-O+GG385) were calibrated by the sequence of Demers.

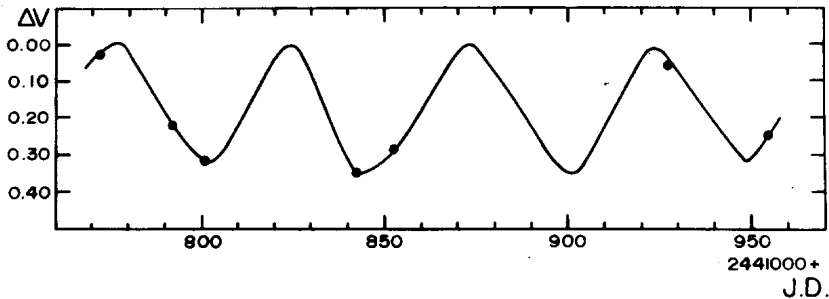
Table I. 1973 Observations of V725 Sgr.

J.D.	V	ΔV	B-V	
2441000+				
771.89	12.28	0.03	1.25	p.e.
791.78	12.45	0.22	1.32	p.g.
800.820	12.55	0.32	1.45	p.e.
842.85	12.58	0.35	1.49	p.g.
852.557	12.52	0.29	1.33	p.g.
927.589	12.31	0.06	1.34	p.e.
954.508	12.48	0.25	1.34	p.g.

In 1973, V725 Sgr achieved new maxima relative to recent years. Although only seven observations are available, the data are not inconsistent with a period of 50 days and an amplitude of 0.40 magnitudes (see Figure 1). The mean brightness may also be increasing as indicated by the averages for the last three

observing sessions, but the data are few and the secular increase is small with respect to the short-term amplitude. However, if the present behaviour is similar to variations at the end of the 19th century, the variable should continue to increase its brightness in the coming decades.

Averages			
	V	B-V	n
1968	12.59	1.36	19
1969	12.52	1.32	19
1973	12.45	1.36	7



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