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GSC 5728_92: A NEW W UMa VARIABLE

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Name of the object:	
GSC 5728_92	
Equatorial coordinates:	Equinox:
R.A. = 19 ^h 40 ^m 08 ^s DEC. = -10°22'26"	J2000
Observatory and telescope:	
Regent Lane Observatory, 0.35-m Schmidt-Cassegrain telescope; Wharemaru Observatory, 0.25-m Schmidt-Cassegrain telescope	

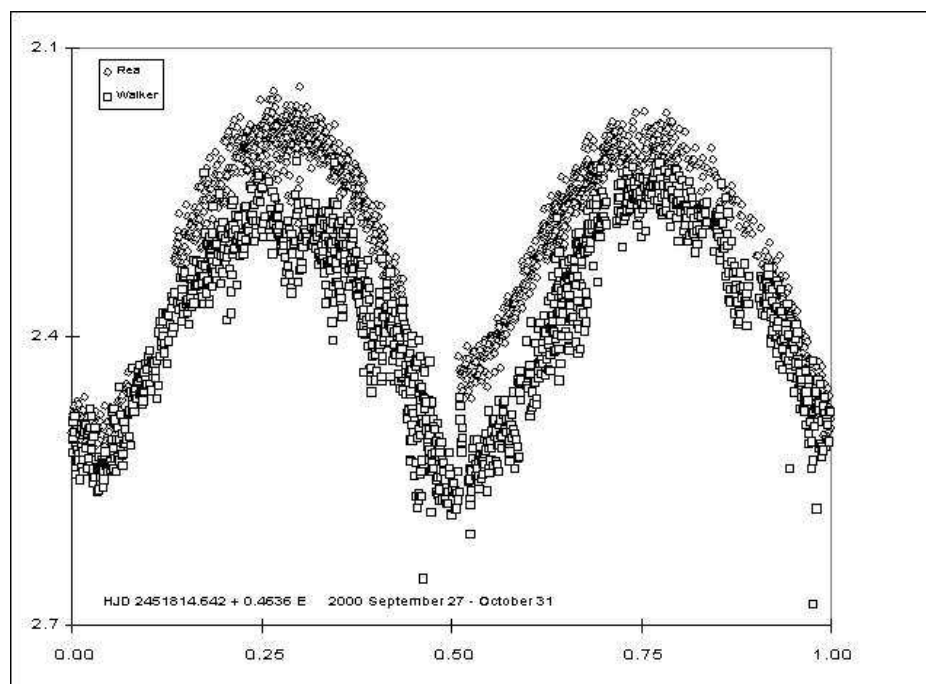


Figure 1. Phase diagram of GSC 05728_00092

Detector:	Santa Barbara Instruments Group ST6B
Filter(s):	None, roughly <i>R</i>
Comparison star(s):	GSC 5728_410; GSC 5728_248 (for observations on Oct. 9 and Oct. 16, 2000, with 0.35-m Schmidt–Cassegrain)
Transformed to a standard system:	No
Availability of the data:	
Upon request	
Remarks:	
<p>The variability of GSC 5728_92 was initially noticed while reducing data obtained on October 9th, 2000 while monitoring V1432 Aquilae as part of the Center for Backyard Astrophysics program of investigating CV stars. GSC 5728-92 was being investigated as a possible check star for CCD photometry, but the measured standard deviations indicated it was unsuitable, and further investigation showed it declined in brightness by about 0.3 magnitudes over a time period of approximately two hours. Data acquired previously (September 27) at Wharemaru Observatory confirmed the variability.</p> <p>Further data was gathered on when weather permitted until October 31. Analysis of the data yields an ephemeris:</p> $\text{Minimum} = \text{HJD } 2451814.642 + 0^{\text{d}}.4636 \times E.$ <p>The fit is reasonable and the star is certainly a W Ursae Majoris binary. The amplitude measured at Regent Lane Observatory is similar but offset from than that obtained at Wharemaru Observatory. The data are in the natural telescope/CCD systems, hence the offset. No extinction corrections have been applied hence the slopes on the different nights do not match.</p>	