

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

Number 5234

Konkoly Observatory
Budapest
4 February 2002

HU ISSN 0374 – 0676

GSC 650_475 AND GSC 650_769: TWO NEW VARIABLE STARS

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Name of the object:
GSC 650_475

Equatorial coordinates:	Equinox:
R.A. = 03 ^h 29 ^m 14 ^s .73 DEC. = +09°11'20".4	J2000

Name of the object:
GSC 650_769

Equatorial coordinates:	Equinox:
R.A. = 03 ^h 28 ^m 25 ^s .77 DEC. = +09°04'23".6	J2000

Observatory and telescope:
Les Engarouines Observatory (IAU astrometric code 164), 0.212m Newton telescope

Detector:	KAF 1600 CCD
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Filter(s):	None, roughly <i>R</i>
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Transformed to a standard system:	No
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Availability of the data:
Upon request

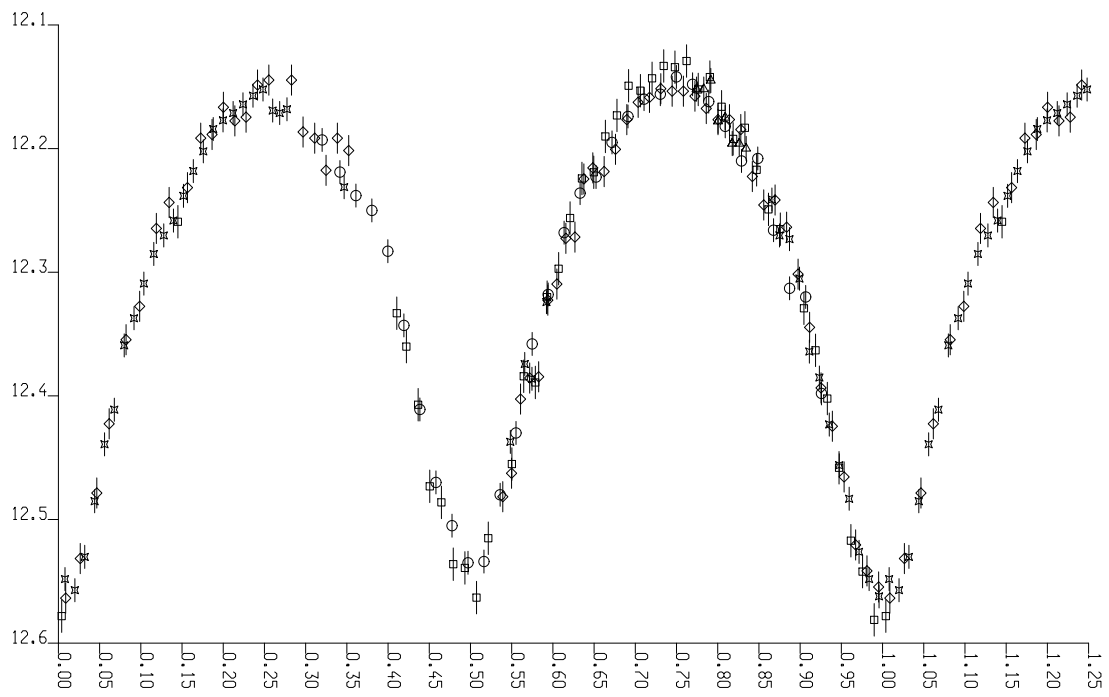


Figure 1. Unfiltered light curve of GSC 650_475

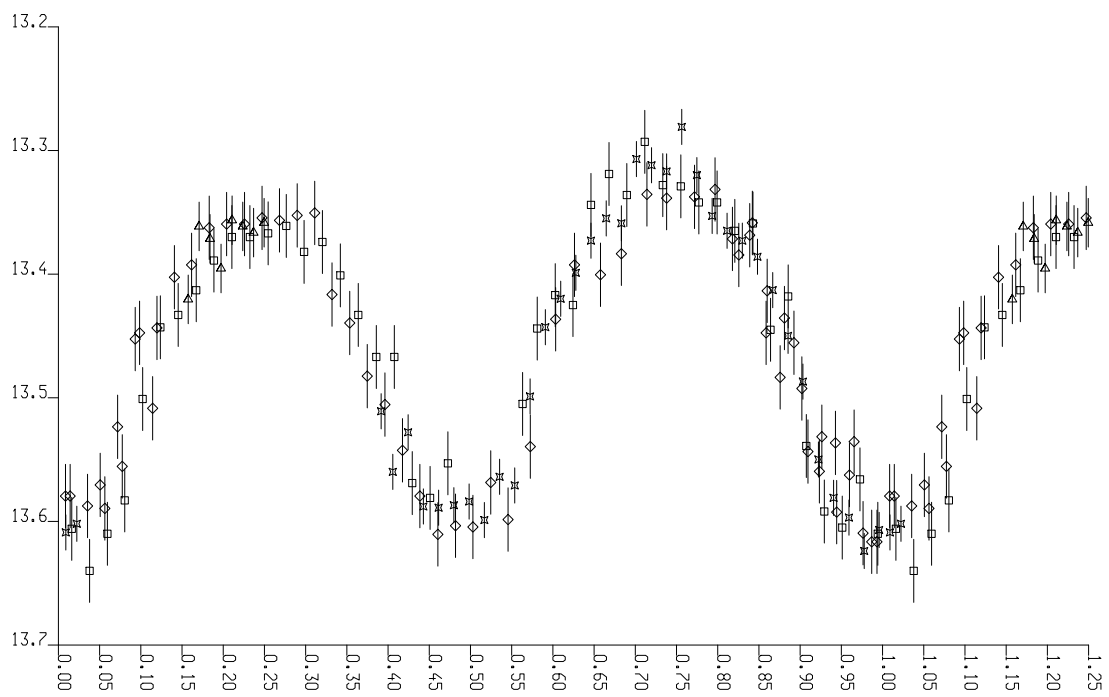


Figure 2. Unfiltered light curve of GSC 650_769

Remarks:

GSC 650_475 was found to be a variable star by Bernasconi on CCD frames taken around 2001 Dec. 20.0 UT (circles in Figure 1) for the successful determination of the asteroid (404) Arsinoe's lightcurve. The variability of GSC 650_769 was found analysing the frames obtained during the three next nights around Dec. 21.0, 21.9 and 22.9 (squares, diamonds and stars in Figures 1 and 2). The periods of the two objects were refined using observations at about 2002 Jan. 11.0 (triangles). The analysis of the observations was done with the CourbRot software (Behrend, 2001), in a manner very similar to the one described in Behrend, Buil, Antonini & Demeautis (2002); the main results are as follows:

For GSC 650_475:

HJD of a principal minimum = 2452264.9819 ± 0.0004
 Period = $0^d44713 \pm 0^d00007$
 Total variation = 0.42 ± 0.01 mag
 Probable type of variability = EW/KW

For GSC 650_769:

HJD of a principal minimum = 2452265.8573 ± 0.0012
 Period = $0^d29172 \pm 0^d00010$
 Total variation = 0.30 ± 0.01 mag
 Probable type of variability = EW

Reference:

Behrend, R., 2001, *Orion*, **304**, 12

Behrend, R., Buil, Ch., Antonini, P., Demeautis, Ch., 2002, *IBVS* 5219