

ROTATION PERIOD FOR (332660) 2008 WL7

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The asteroid (332660) 2008 WL7 was observed for one night, his synodic period was found to be 2.55 ± 0.15 h. This asteroid was observed in March 8 of 2017 during 2h 31min with the 2.12-m f/7.5 telescope (Ritchey-Chretien design) of the National Astronomical Observatory in San Pedro Mártir-Mexico (OAN-SPM) and a CCD Spectral (2048x2048 pixels of 13.5 micron) that was binned 2x2. This configuration gave a field-of-view of approximately 6x6 arcmin and an image scale of 0.176 arcsec/pix. An filter R was used and an exposure time of 90 s.

The asteroid (332660) 2008 WL7 has orbital parameters at the moment of observation: semi-major axes of 3.15, eccentricity 0.15 and inclination of 5.84. This asteroid is located in the outer part of the main belt. A search of the Asteroid Lightcurve Database did not find any previously reported result. The observational circumstances are showed in the table 1.

Number	Name	2017 mm/dd	Pts	Phase	L _{PAB}	B _{PAB}	Period(h)	P.E.	Amp	A.E.	Grp
332660	2008 WL7	08/03	69	8.75, 8.67		195	4	2.54	0.150	.10	

Table 1. Observing circumstances and results.

corrected by light time travel. The relative magnitude was obtained subtracting the instrumental magnitude of the asteroid to the instrumental magnitude of one comparison star in the same field of the asteroid and approximately of the same order of magnitude that the asteroid.

The Figure 2 shows the phase curve, full phase coverage was achieved on one night observation. The peak to peak variation is about 0.10 of magnitude. The period was found fitting Fourier series to the data. The best fit was obtained with degree 4 resulting a period of 2.55 hours and with standard error of 0.15 hours. The determination of period was following according the methodology of Harris A.W. *et al.* (1989).

Acknowledgements

This work was possible thanks to CONIDA, the Institute of Astronomy of the UNAM, and Universidad Autónoma de Nuevo León (UANL). This work was Based upon observations carried out at the Observatorio Astronómico Nacional on the Sierra San Pedro Mártir (OAN-SPM), Baja California, México."

References

Harris, A.W., Young J.W., Bowell E., Martin L.J., Millis R.L., Poutanen M., Scaltriti F., Zappalà V., Schober H.J., Debehogne H., Zeigler K.W. (1989). "Photoelectric Observation of Asteroids 3, 24, 60, 261, and 863". *Icarus* 77, 171-186.

The calibration images were reduced using IRAF (Image Reduction and Analysis Facility) and for the photometry was used MaxIm DL (Diffraction Limited). The Figure 1 shows the lightcurve of asteroid where the data was

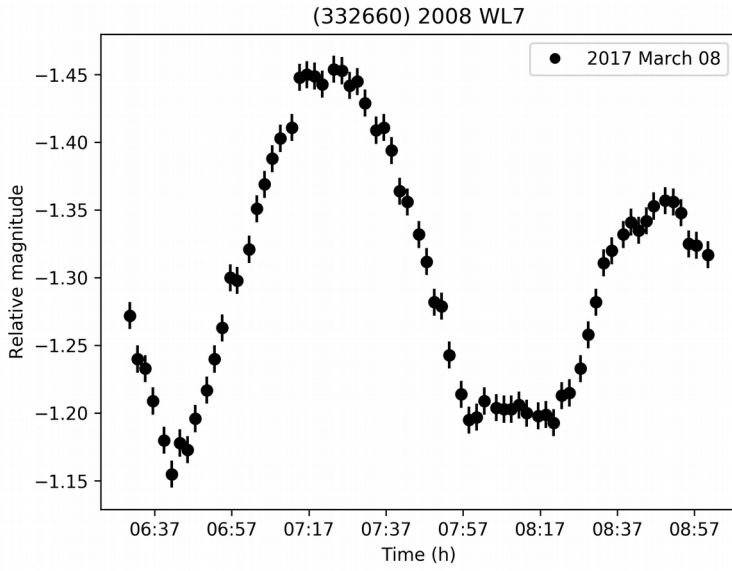


Fig. 1

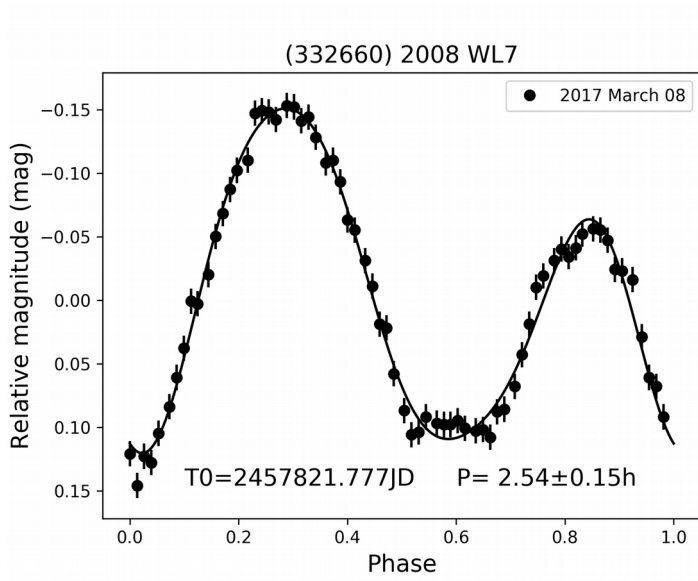


Fig. 2