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ROTATION PERIOD DETERMINATION FOR 397 VIENNA

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(Received: 2017 June 14)

CCD photometry of minor planet 397 Vienna shows that it has a synodic rotation period of 15.461 ± 0.001 hours, amplitude 0.16 ± 0.02 magnitudes.

Previously published periods for 397 Vienna were reported by Harris and Young (1983), 15.48 hours; Behrend (2009), >8 hours; and Ruthroff (2010), 15.45 hours. The authors of this study agreed to collaborate to obtain a dense observation set and complete phase coverage.

Observer Pilcher at the Organ Mesa Observatory used a 0.35-meter Meade LX200 GPS Schmidt-Cassegrain (SCT), SBIG STL-1001E CCD, clear filter (sessions 2619, 2632, 2636, 2643, 2653, 2655). Oey at Blue Mountain Observatory used a 35 cm SCT operating at f/5.9, SBIG ST-8XME CCD, clear filter (sessions 2657, 2658). The staff of A. Mickiewicz University obtained data at Borowiec station with 0.4 meter Newtonian telescope, SBIG ST7 CCD, clear filter (sessions 2644, 2645), and at Winer Observatory near Sonoita, Arizona, USA with a 0.7 meter corrected Dall-Kirkham telescope, Andor iXon CCD, R filter (session 2646). Ogloza at Mt. Suhora Observatory used a 0.6 meter Cassegrain, Apogee Alta U47 CCD, R filter (session 2661). Photometric measurement and lightcurve construction are with *MPO Canopus* software. To reduce the number of points on the lightcurves and make them easier to read, data points have been binned in sets of 3 with a maximum time difference of 5 minutes.

Observations on 12 nights 2017 May 10 – June 18 provide a good fit to an irregular lightcurve with period 15.461 ± 0.001 hours, amplitude 0.16 ± 0.02 magnitudes. This is consistent with previous measurements.

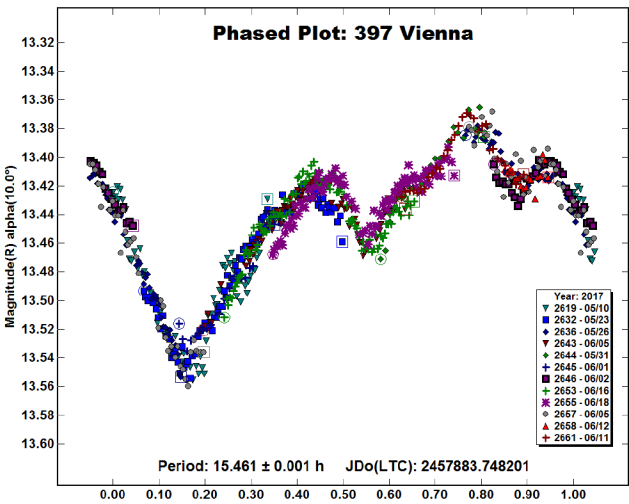
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Number	Name	2017/mm/dd	Pts	Phase	LPAB	BPAB	Period(h)	P.E	Amp	A.E.
397	Vienna	05/10-06/18	1786	10.3, 5.2, 7.3	253	6	15.461	0.001	0.16	0.02

Table I. Observing circumstances and results. Pts is the number of data points. The phase angle is given for the first date, minimum (second) value reached, and last date. LPAB and BPAB are the approximate phase angle bisector longitude and latitude at mid-date range (see Harris et al., 1984).