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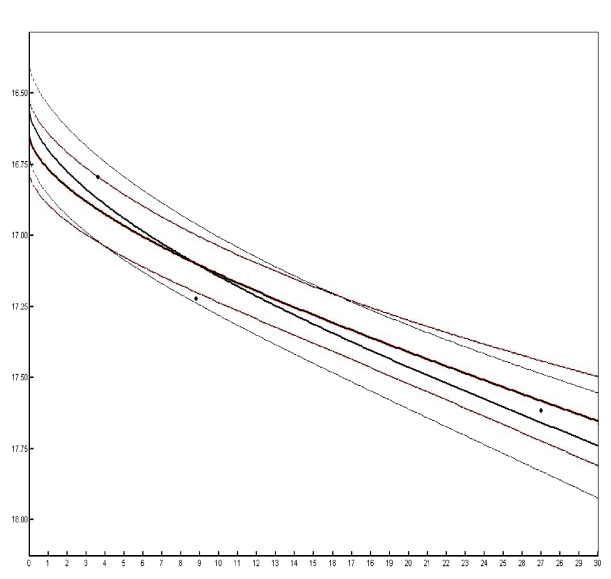


Figure 1. Plot of the reduced magnitude of 2006 VV2 versus phase angle. The solid black line is corresponding to a curve with $G = 0.2 \pm 0.2$ and the red line to $G = 0.4 (0.36) \pm 0.2$. The reduced magnitude error is < 0.1 mag.

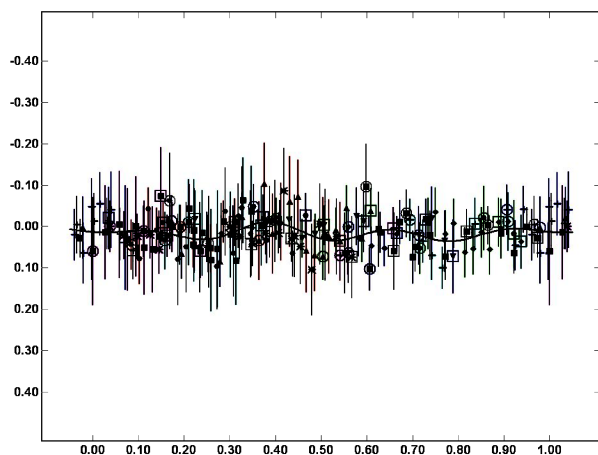


Figure 2. 2008 BT18 lightcurve adjusted in a period of 2.726 ± 0.007 h. Zero phase corresponds to JDo(LTC) 2454671.549222. The black solid line is the best adjust to data a 4th harmonic Fourier series.

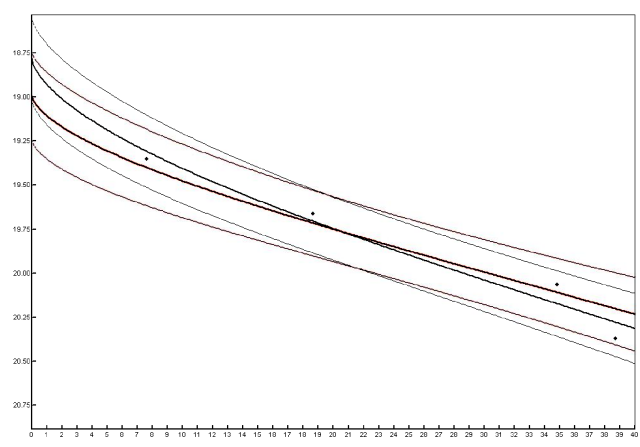


Figure 3. Plot of the reduced magnitude of 2008 BT18 versus phase angle. The solid black line corresponds to a curve with $G = 0.2 \pm 0.1$ and the red line to $G = 0.40(0.36) \pm 0.2$.

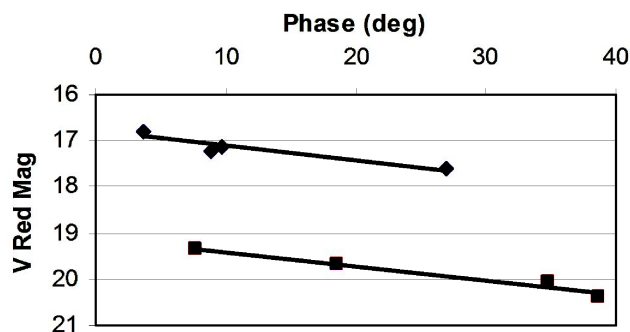


Figure 4. Linear phase functions of 2006 VV2 (blue dots) and 2008 BT18 (red dots). The solid line is the best linear fit obtained with the least squares method. The magnitude error is < 0.1 mag.

LIGHTCURVE ANALYSIS OF 566 STEREOSKOPIA AND 823 SISIGAMBIS

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We report the lightcurve period for the 566 Stereoskopia for which two very different periods had been previously published, our results being 12.103 ± 0.002 h. Unfortunately, we are able to provide only a very tentative result of 21.0 ± 0.1 h for 823 Sisigambis.

The Evelyn L. Egan Observatory is located on the campus of Florida Gulf Coast University in Fort Myers, Florida. Details on the equipment and experimental methods can be found in Fauerbach and Bennett (2005). The data were analyzed with *MPO Canopus* version 9, which employs differential aperture photometry to determine the values used for analysis. The targets

were chosen by comparing well-placed asteroids to the list of known lightcurve parameters maintained by Harris and Warner (2008). We focused our observations on two large and bright asteroids for which a high uncertainty in the actual rotational period existed.

566 Stereokopia. Previously published periods for this asteroid, based on sparsely populated lightcurves, ranged from 9.685 h by Blanco et al. (2000) to 17.76 h by Behrend (2008). Our densely populated lightcurve, derived over 10 nights and spanning just longer than a month, fits neither of those previous periods. Instead, we find a stable solution for a period of 12.103 ± 0.002 h.

823 Sisigambis. Previously published periods for this asteroid, based on sparsely populated lightcurves, ranged from greater than 24 h by Barucci et al. (1994) as well as Wisniewski et al. (1997) to 146.2 h by Behrend (2008). Despite observing the asteroid exclusively for six nights over a two-week period, we were unable to find a high-quality solution. This is mainly due to the very low amplitude variations observed over an entire night, which typically spanned 5-6 h of observational time. A similar trend was observed by Wisniewski et al. (1997). They show a single night lightcurve for 823 Sisigambis that covers approximately 3 h and is basically flat. Barucci et al. (1994) reported a drop of ~ 0.2 mag over a 5 h period. When Wisniewski et al. (1997) observed the asteroid during the same night, with a 30-minute overlap, they found the lightcurve to be flat. We were unable to observe a maximum during the 6 nights of observations, which would have helped in predicting the period. Bowing to Occam's Razor, we present here a possible solution with a period of 21.0 h. We also show a lightcurve with a period of 146.2 h as predicted by Behrend (2008). It should be pointed out that since we used differential photometry, the absolute location of the individual nights on this plot is arbitrary and could be shifted up or down. Further data for this large and bright asteroid are clearly needed.

References

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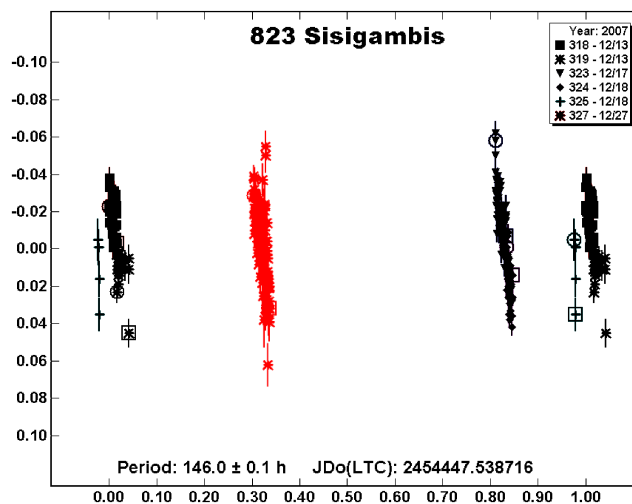
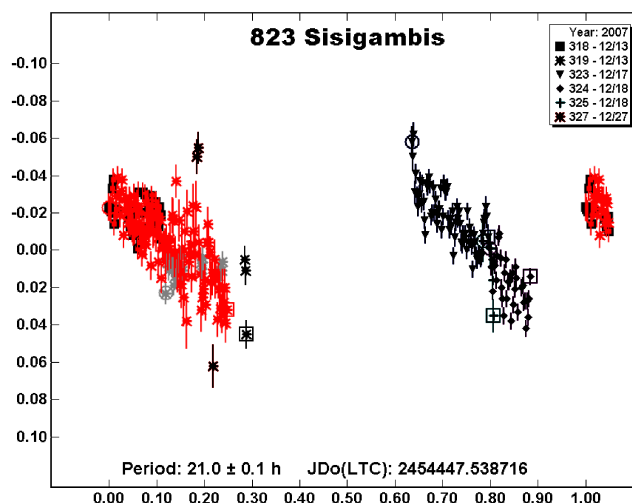
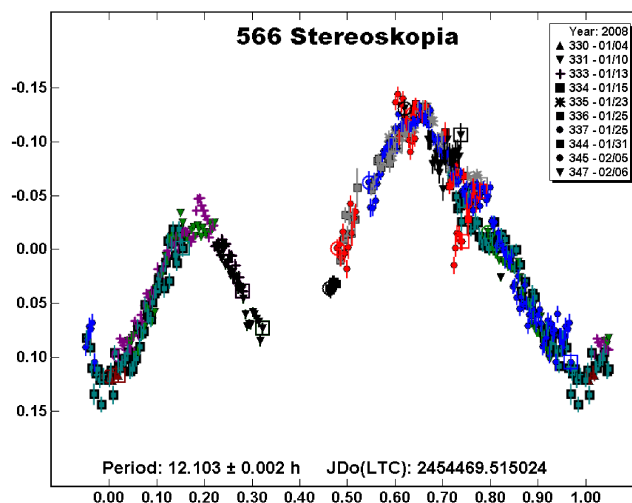
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#	Name	Date Range (yyyy mm/dd)	Data Pts	Phase	LPAB	BPAB	Per (h)	PE
566	Stereokopia	2008 01/03-02/05	554	12.4, 17.6	65	-0.5	12.103	0.002
823	Sisigambis	2007 12/12-12/26	292	13.2, 19.5	58	0.7	21.0	0.1