

PERIOD DETERMINATION FOR 1996 ADAMS AND 2699 KALININ BY AOACM

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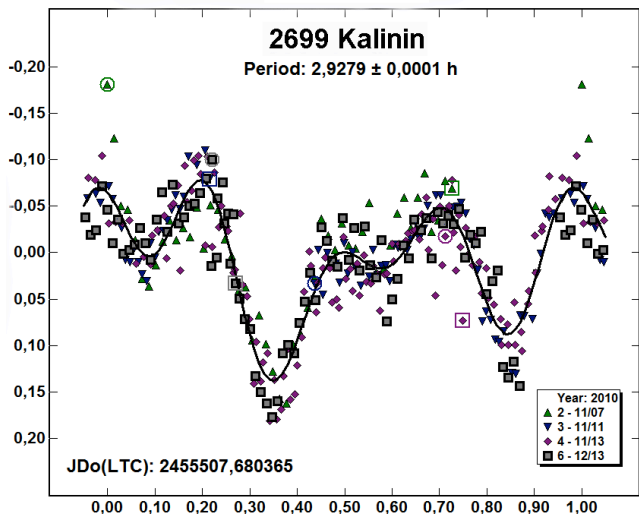
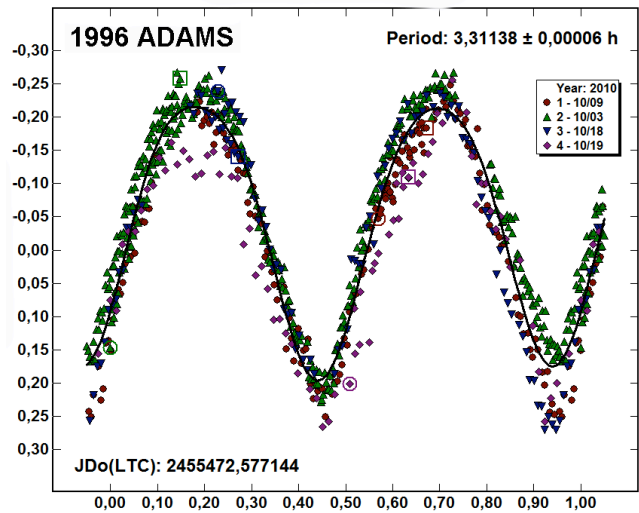
Synodic rotation periods and amplitudes are reported for
1996 Adams: 3.31138 ± 0.00006 h, 0.45 ± 0.04 mag;
and 2699 Kalinin: 2.9279 ± 0.0001 h, 0.24 ± 0.04 mag.

The AOACM (Asociación Observatorios Argentinos de Cuerpos Menores) is an Argentinean association of amateur astronomical observatories. For more details about the group's objectives, equipment, and activities, please visit our web page at <http://www.aoacm.com.ar>. The observations reported here were done with a range of equipment. Observatory I36, Los Campitos: 0.20-m f/4 Newtonian reflector, SBIG ST7-XME CCD camera. Observatory I19, El Gato Gris: 0.35-m Schmidt-Cassegrain with focal reducer working at f/3.2, Starlight SXV-M7 CCD camera. Observatory I20 Río Cuarto: 0.20 f/4 Schmidt-Newtonian, Meade DSI I Pro CCD camera.

The targeted asteroids were selected from the quarterly lightcurve photometry opportunities article published in *The Minor Planet Bulletin* (Warner *et al.* 2010). In all cases unfiltered images were obtained and were appropriately dark, bias and flat calibrated. The data were light-time corrected. Period analysis was done with *MPO Canopus*, which incorporates the Fourier analysis algorithm developed by Harris (Harris *et al.* 1989). Alternatively, we analyzed the data with Matlab scripts developed by Mazzone that fit the coefficients and frequencies of trigonometric polynomials. Moreover, they fit the offsets of the several sessions. See Mazzone (2010) for these scripts. The results from the two methods are practically the same, except for small differences of the order of the errors.

1996 Adams. Our observations span the entire rotation four times. We collected 748 data points in four sessions on 2010 October 3, 9, 18, and 19. The synodic rotation period was found to be $P = 3.31138 \pm 0.00006$ h with an amplitude of $A = 0.45 \pm 0.04$ mag. These results are in close agreement with the period and amplitude found by Aymamí (2011) and Durkee (2011).

2699 Kalinin. A search of the Asteroid Lightcurve Database (LCBD, Warner *et al.* 2009) did not reveal any previously reported results for this asteroid. Our observations span the entire period five times. We collected 352 data points in four sessions on 2010 November 7, 11, and 13 and December 13. The synodic rotation period was found to be $P = 2.9279 \pm 0.0001$ h with an amplitude of $A = 0.24 \pm 0.04$ mag.



References

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