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LIGHTCURVE ANALYSIS OF NEA (361071) 2006 AO4

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ROTAT and SATINO Observatories (C95)

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CCD photometric observations of Amor-type asteroid (361071) 2006 AO4 were made on 2013 September 23. From the lightcurve we obtained a synodic period of 4.09 ± 0.17 h with an amplitude of 0.13 mag.

Remote Observatory Theoretical Astrophysics Tübingen (ROTAT) is a 60-cm remotely operated telescope located on the Observatoire de Haute-Provence (OHP) site at Haute-Provence, France, about 100 km north-east of Marseille. ROTAT was formerly located and operated in Tübing by the Dept. for Theoretical Astrophysics, University of Tübingen.

Image acquisition was made with an SBIG STL-1100M CCD camera attached to the *f*/3.2 Newtonian focus of the ROTAT telescope, resulting in a pixel scale of 1.94 arcsec/pixel with 2x2 binning. No filters were used. All images were measured using *Astrometrica*, *i.e.* PSF-based all-sky photometry. Dark and flat images were applied.

Magnitudes were reduced to unity distance and times were corrected for light-time. The observations show a fair amount of scatter. Hence the period search was done with two different methods. First, a period scan using the Phase Dispersion Minimization algorithm (PDM; Stellingwerf, 1978) was done. Second, the period was determined by performing fourth-order Fourier fits to a range of possible periods. Both approaches showed a most likely period around 4 h.

The final period $P = 4.09 \pm 0.17$ h with an amplitude $A = 0.13$ mag was obtained from a fourth-order Fourier fit, similar to the FALC method developed by Harris (Harris *et al.*, 1989). The computations were done with a Python/SciPy script developed by the authors. The PDM algorithm is provided by the Python PyAstronomy package (*https://github.com/sczesla/ PyAstronomy*). Our results are consistent with those of Warner (2014) who reported another lightcurve, observed in 2013 August, from which he obtained a period $P = 4.093 \pm 0.001$ h.

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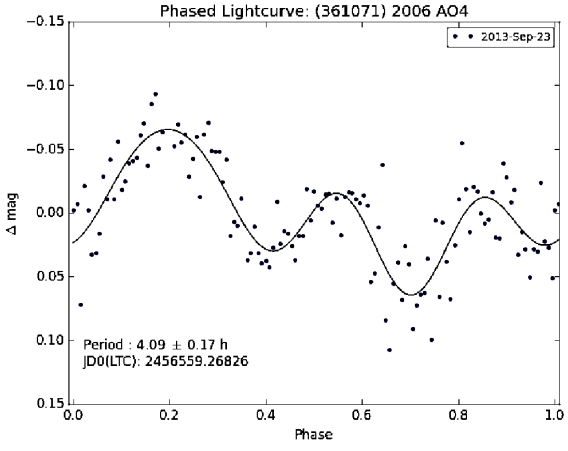

NEAR-EARTH ASTEROID LIGHTCURVE ANALYSIS AT CS3-PALMER DIVIDE STATION: 2015 JANUARY – MARCH

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Lightcurves for 35 near-Earth asteroids (NEAs) were obtained at the Center for Solar System Studies-Palmer Divide Station (CS3-PDS) from 2014 December through 2015 March. One object, (159454) 2000 DJ8, may be a highly bifurcated body, or a close binary.

CCD photometric observations of 35 near-Earth asteroids (NEAs) were made at the Center for Solar System Studies-Palmer Divide