

Asteroids, Comets

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Rotation of Asteroid 416 Vaticana : 5.35 hours

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The S-type asteroid 416 Vaticana with a diameter of 81.7 km (Bowell et al. (1979)), resp. 89.5 km (IRAS) was observed photoelectrically during five nights in Aug.1985, using the 0.6m and 1.0m telescopes at CTIO, Cerro Tololo Interamerican Observatory, Chile, and the 0.5m ESO-telescope at the European Southern Observatory, Chile. The lightcurve is a double wave one with a maximum amplitude of about 0.12 mag, the rotation period of 416 Vaticana turns out to be between 5.3 to 5.4 hours only. The primary maximum was about $V_{\max} = 11.50$, the colours are $B-V = 0.89$ and $U-B = 0.50$ in close agreement with Bowell et al. (1979).

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Rotation of Asteroid 487 Venetia : Most probably 13.5 hours

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The S-type asteroid 487 Venetia with a diameter of 68.2 km (Bowell et al. (1979)), resp. 82.0 km (IRAS) was observed photoelectrically in UBV during three night only in Aug.1985, using the 0.5m ESO-telescope of the European Southern Observatory, La Silla, Chile. From the repeating features in the lightcurve in a time interval of 27 hours (which is long if compared with the consecutive observing nights) a resulting rotation period of 9 hours, 13.5 hours or 27 hours (or longer) could be concluded. The most probable rotation period will be 13.5 hours; the lightcurve shows a maximum amplitude of at least 0.15 mag, the maximum brightness was $V_{\max} = 12.00$, the colours are $B-V = 0.85$ and $U-B = 0.45$, also in close agreement with Bowell et al. (1979).