

Photometry and Physical Models of 3 Asteroids B. Li¹ and H. B. Zhao², ¹Purple Mountain Observatory,CAS, 2 West Beijing Road, Nanjing 210008,China. Libin0129@gmail.com, ² Purple Mountain Observatory,CAS, 2 West Beijing Road, Nanjing 210008,China.meteorzh@pmo.ac.cn.

Introduction: We present new observation and models of shapes and rotational states of 4 main belt asteroids Proserpina (26), Budrosa (338), Susi (933), Ambartsumin (1905). We carried out optical photometric observations of four asteroids during 2010-2012, using the 1.2/1.04 m Xuyi NEO telescope with 4KCCD, the 40-cm Meade telescope with U6 1KCCD.

The spin vectors, sidereal periods and shape models of the observed asteroids were determined by lightcurve inversion method described by Kaasalainen & Torppa (2001) and Hanuš & Āurech (2011). We combined density lightcurve from UAPC, MPC, and sparse data obtained from AstDys to distribute asteroid's shape models. Table 1 contains all result about rotational properties. We also present the phase curves of three asteroids by analyzed sparse data. Fig. 1 show one phase curve of Proserpina (26) .

Tab. 1 The sidreal periods, longitude and latitude

Name	S.P. (hr)	λ (°)	β (°)
Prosepina	13.10957	240.2	40.3
Budrosa	4.61033	348.3	2.9
Susi	4.62194	55.7	-20.8

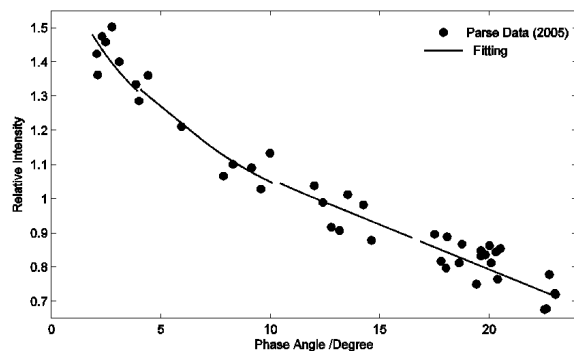


Fig. 1: Solar phase function plot for Prosepina (26), the dots are parse photometry data from USNO at 2005-2006. The solid curves represent the best fits of phase function.

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