Shapes and spins of asteroids Lohja, Ermolova, and Silver from the observations at the Skalnate Pleso Observatory observations at the Skalnate Pleso Observatory

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We present lightcurves, shapes, and spin-axis models for three main-belt asteroids: (2501) Lohja, (3657) Ermolova, and (5325) Silver. The photometric data was obtained at the Skalnate Pleso Observatory, High Tatras, Slovakia. The models were obtained with the lightcurve inversion process [1,2] using combined dense photometric data from the apparitions in 2007, 2011, 2012, and 2013 for Lohja, in 2006, 2010, and 2013 for Ermolova, and in 2006, 2010, and 2013 for Silver. The analysis of the resulting data found a sidereal period $P = 3.808348\,\mathrm{h}$ and possible ecliptic pole solution (J2000.0) at $(\lambda = 124°, \beta = 81°)$ for Lohja, $P = 2.606513\,\mathrm{h}$ and $(\lambda = 261°, \beta = -41°)$ for Ermolova, and $P = 4.023569\,\mathrm{h}$ and $(\lambda = 288°, \beta = 72°)$ for Silver. Knowledge of individual asteroid shapes and spin axes is vital for the understanding the Solar System. However, currently only 648 models are known for 381 asteroids.

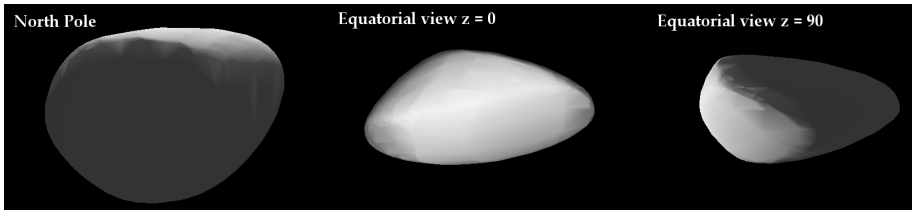

Figure: Model of the asteroid Lohja.

Acknowledgements: This work has been supported by the Slovak Grant Agency for Sciences VEGA (Grant No. 2/0032/14).

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