

## Photometric survey of the smallest near-Earth asteroids with the SALT telescope

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We report results from our extensive survey of the smallest ( $H > 21.5$  mag) near-Earth asteroids. Our aim was to obtain photometric lightcurves for these faint, fast moving targets and measure their rotation periods and amplitudes of light variations. These parameters can be used to make statistical analysis of the still little known population of the smallest asteroids, as well as to study their spin limits, which are connected with their internal structure.

Due to the faintness of the targets and the expected rotation periods as short as several minutes, observations were performed with a new, 10-m Southern African Large Telescope in SAAO (South Africa). Being still in the commissioning phase, SALT could be used—for otherwise difficult to execute due to time constraints—task of systematic survey of  $18 < V < 21$  mag asteroids. For most of them,  $V$  filter exposures with exposure times of 5-30 seconds were obtained with the SALTICAM camera. Even though the non-sidereal tracking was not available, the SALTICAM's relatively large field-of-view of  $8 \times 8$  arcmin allowed to perform the relative photometry of the fast-moving targets.