A new pipeline for astrometry and photometry of asteroids

Y. Kılıç[1,2] M. Kaplan[2] and Z. Eker[2]

[1]TÜBİTAK National Observatory, Antalya, Turkey
email: yucel.kilic@tubitak.gov.tr

[2]Department of Space Sciences and Technologies, Akdeniz University, Antalya, Turkey

Abstract. Using Python 3, astropy and astrometry.net, we have developed a pipeline to obtain photometric light curves of asteroids automatically queried by the SkyBoT database from sequential FITS images. The pipeline provides: pre-reduction of data, astrometry, standard differential photometry and light curves by auto-selecting multiple comparison stars (maximum user-defined) from NOMAD catalog via VizieR. The code is an open source, free and hosted on GitHub with the GNU GPL v3 license.

The code

The pipeline can be downloaded from the link: https://github.com/yucelkilic/astrolib.

Acknowledgement