

NEA PHOTOMETRY IN FRAME OF ISON PROJECT: DETECTION OF BINARIES

Y. Krugly¹, I. Molotov², R. Inasaridze³, V. Aivazyan³, O. Kvaratskhelia³, V. Zhuzhunadze³, I. Belskaya¹, V. Chiorny¹, A. Sergeev¹, V. Shevchenko¹, I. Slyusarev¹, V. Rummyantsev⁴, S. Ehgamberdiev⁵, O. Burkhonov⁵, L. Elenin², V. Voropaev², V. Kouprianov⁶, M. Krugov⁷, A. Kusakin⁷, I. Reva⁷, N. Gaftonyuk⁴, A. Baransky⁸, Z. Donchev⁹, G. Borisov⁹, T. Irsambetova¹⁰, A. Matkin¹¹, D. Erofeev¹¹, S. Schmalz¹², T. Namkhaj¹³, A. Wolf¹⁴, V. Kashuba¹⁵, and V. Troianskyi¹⁵

¹ Institute of Astronomy of Kharkiv National University, Kharkiv, Ukraine

² Keldysh Institute of Applied Mathematics, RAS, Moscow, Russia

³ Kharadze Abastumani Astrophysical Observatory, Ilia State University, Georgia

⁴ Crimean Astrophysical Observatory, Nauchny, Crimea

⁵ Ulugh Beg Astronomical Institute, UAS, Tashkent, Uzbekistan

⁶ Pulkovo Observatory, RAS, St. Petersburg, Russia

⁷ Tien-Shan Observatory, Fesenkov Astrophysical Institute, Alma-Ata, Kazakhstan

⁸ Lisnyky Observatory, Kiev Shevchenko National University, Kiev, Ukraine

⁹ Institute of Astronomy, BAS, Sofia, Bulgaria

¹⁰ Sternberg Astronomical Institute of Moscow University, Moscow, Russia

¹¹ ISON-Ussuriysk, Ussuriysk Astrophysical Observatory, RAS, Russia

¹² Leibniz Institute for Astrophysics, Potsdam, Germany

¹³ Huraltogot Observatory, Research Center of Astronomy and Geophysics, Ulan-Bator, Mongolia

¹⁴ Altai State Pedagogical University, Barnaul, Russia

¹⁵ Astronomical Observatory of Odessa National University, Odessa, Ukraine

contact e-mail: *yurij_krugly@yahoo.com*

Photometric survey of near-Earth asteroids (NEAs) are carried out in the frame of Asteroid Search and Photometry Initiative (ASPIN) of the International Scientific Optical Network (ISON). The observational program is aimed (1) to acomplete available data on the rotation and shape of NEAs, (2) to investigate an influence of the YORP effect on rotation of these bodies, (3) to detect and characterize binaries among NEAs. The studied objects include both newly discovered and well-known NEAs, targets of radar observations (Goldstone and Arecibo support), and very small asteroids with diameters $D < 200$ m. We use the network of 19 telescopes with different apertures from 25 cm up to 2.6 m situated at 14 observatories and worked in coordination on photometric survey of asteroids. More than 80 NEAs were observed in 2015. We present photometric observations of several binary NEAs as well as asteroids suspected to be binaries which were carried out last years. The results of recent observations of (8373) Stephengould and (337866) 2001 WL15 are discussed in details.