[EE] Evening Poster | P (Space and Planetary Sciences) | P-PS Planetary Sciences

[P-PS03]Small Bodies in the Solar System: Current Understanding and Future Prospects

convener:Masateru Ishiguro(Department of Physics and Astronomy, Seoul National University), Taishi Nakamoto(Tokyo Institute of Technology), Masahiko Arakawa(神戸大学大学院理学研究科, 共同), Masanao Abe(Institute of Space and Astronautical Science, Japan Aerospace Exploration Agency)

Wed. May 23, 2018 5:15 PM - 6:30 PM Poster Hall (International Exhibition Hall7, Makuhari Messe)

In this session, we welcome presentations regarding small bodies in the Solar System from a variety of approaches (i.e., laboratory experiments, observations, explorations, theoretical modeling, and sample analyses). Especially this year, the Hayabusa2 spacecraft is about to rendezvous with its mission target (Ryugu, C-type asteroid), and ready to make remote-sensing observations for acquiring detailed information of the primordial body. Taking account of the situation, we aim to organize our current understanding of these primordial bodies and further discussing future prospects in this research field.

[PPS03-P04]Observation Campaign of DESTINY+ Mission Target Asteroid 3200 Phaethon (1983 TB) during the 2017 Apparition

*MYUNGJIN KIM[1], Hee-Jae Lee[1,2], Sang-Min Lee[1,2], Dong-Heun Kim[1,2], Fumi Yoshida[3], Jintae Park[1], Young-Jun Choi[1,4], Hong-Kyu Moon[1], Hong-Suh Yim[1], Jin Choi[1,4], Eun-Jung Choi[1], Alexander Serebryanskiy[5], Maxim Krugov[5], Inna Reva[5], Ergashev Kamoliddin[6], Otabek Burhonov[6], Shuhrat A. Ehgamberdiev[6] (1.Korea Astronomy and Space Science Institute, 2.Chungbuk National University, 3.Planetary Exploration Research Center (PERC), Chiba Institute of Technology, 4.University of Science and Technology, 5.Fesenkov Astrophysical Institute, 6.Ulugh Beg Astronomical Institute)

Keywords:asteroids, Phaethon, photometry, lightcurve, shape

Near-Earth asteroid 3200 Phaethon (hereafter Phaethon) is the primary target of DESTINY+. The observation window for Phaethon in the end of 2017 is a good opportunity to acquire high quality dense photometric data as Phaethon passed the Earth only within 27 LD (Lunar Distance) on 16 Dec 2017, the closest approach in 40 years. However, the spin status including rotational period and pole orientation is not precisely constrained due to small variations in the lightcurve amplitude, probably resulting from a spheroidal shape. We carried out the photometric observation campaign for Phaethon between Asia and American Continents, during the period early Nov and mid-Dec 2017. We employed several telescopes: OWL 0.5 m, LOAO 1.0 m in Mt. Lemmon, USA, Maidanak 0.6 m in Uzbekistan, SOAO 0.6 m in Mt. Sobaek, Korea, 1.0 m in Kazakstan, BOAO 1.8 m in Mt. Bohyun, Korea. Based on our dataset, we will present the lightcurve and shape model of Phaethon.