



EPSC Abstracts

Vol. 14, EPSC2020-659, 2020

<https://doi.org/10.5194/epsc2020-659>

Europlanet Science Congress 2020

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Bennu and Ryugu: Dynamical modelling of ejected particles to the Earth

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Apollo-type asteroids Bennu and Ryugu are currently targets of sample-return missions. The goal of OSIRIS-REx mission (NASA) is to explore asteroid Bennu and Ryugu is being probed by JAXA's Hayabusa2 mission. Observations of Bennu in January 2019 revealed ejecting material in the close proximity of the asteroid. Here we present our results of studying orbital evolution of potential meteoroid streams along the orbits of Bennu and Ryugu by integrating over 5000 test particles each for 1000 yr. We searched for their approaches to the Earth and we were also interested in evolution of their Earth MOIDs in order to estimate possible activity of potential meteor showers. Our results indicate possible observability from the Earth approximately for next 400 - 500 yr in both cases. Theoretical radiants for both asteroids and their potential meteor showers were also calculated.