

Tuesday, July 24, 2018
POSTER SESSION I: ASTEROIDS AND COMETS
 5:30 p.m. Foyer

Andreev A. O. Usanin V. S. Nefedyev Y. A.

[*The Study of Non-Gravitational Effects in the Comet Encke Motion*](#) [#6155]

For the comet Encke the erosion is not uniform. Two scenarios are considered: accumulation of significant amount of non-volatile mass and formation of a surface crust. Solution of the introduced equations shows that the first scenario is more suitable.

Penttilä A. Väisänen T. Martikainen J. Gritsevich M. Muinonen K.

[*Multiple Scattering Modeling Pipeline for Spectroscopy of Asteroids and Meteorites*](#) [#6273]

We are combining a set of numerical tools to analyze the reflectance spectra of granular materials. Our motivation for this study comes from the present lack of such tools when it comes to intimate mixing of materials.

Nefedyev Y. A. Andreev A. O. Demina N. K.

[*Study of the Asteroids and Cometary Structure Using Fractal Analysis*](#) [#6192]

In this paper, fractal structures of Vesta asteroid were studied on the basis of Hubble Space Telescop. It was obtained that for for the Vesta' topographical data the variations of fractal dimensions vary between 0.85 and 1.10.

Sergienko M. V. Sokolova M. G. Andreev A. O. Nefedyev Y. A.

[*Analysis of the Main and Small Meteor Showers*](#) [#6162]

The structures of Ursid, Perseid, Lyrid cometary showers as well as Geminids, Taurids, Alpha Capricornids, presumably associated with asteroids, are investigated and distribution of their physical parameters is analyzed.

Sergienko M. V. Sokolova M. G. Andreev A. O. Nefedyev Y. A.

[*Small Meteor Showers Identification with Near-Earth Asteroids*](#) [#6165]

Using statistical and robust analysis Apollo and Atira groups are defined as most probable ones that may contain nuclei of sleeping or faded comets among their terms. The genetic connections between asteroids groups and meteor showers are studied.

Andreev A. O. Usanin V. S. Nefedyev Y. A.

[*Determination of Meteors Belonging to Showers Using the Results of Single-Station Observations with MMT*](#) [#6157]

Based on the observations taken with Mini-MegaTORTORA (MMT) telescope in a system of BVR filters a genetic belonging of the observed meteors to meteor showers was established during their activity period.

Dmitriev V. Lupovka V. Gritsevich M.

[*Meteor Toolkit — Free Distributable Open-Source Software for Determination and Analysis of Meteoroid Orbits*](#) [#6210]

We highlight capabilities of 'Meteor Toolkit' for meteor orbit determination. It enables robust analysis of the orbital motions of meteoroids and search for their potential parent bodies.

Perov N. I. Ivanova Yu. D.

[*Near Earth Comets Origin*](#) [#6130]

The problem of comets migrations from Oort's Cloud to the Earth, taking into account the effect of Kozai-Lidov, and the interactions between a comet, the oblate Sun and the nucleus of the Galaxy in Hill's approximation is investigated in evident form.