

Tuesday, March 8, 2011

## POSTER SESSION I: ASTEROID DISCOVERY AND EXPLORATION

6:00 p.m. Town Center Exhibit Area

Cheng A. F. Rivkin A. S. Hibbard K. Mink R. Barber B. Garvin J. Abell P.  
Mazanek D. Landis R.

[\*Near-Earth Asteroid Survey Precursor to Human Exploration\*](#) [#1820]

The most urgent knowledge needed to prepare for human spaceflight to a near Earth object is the need to discover a sufficient number of suitable candidate targets. These targets can be discovered quickly and affordably by a space-based telescopic survey.

Savanevich V. E. Kozhukhov A. M. Bryukhovetskiy A. B. Vlasenko V. P. Dikov E. N.  
Ivashchenko Yu. N. Elenin L.

[\*Program of Automatic Asteroid Search and Detection on Series of CCD-Images\*](#) [#1140]

The paper presents a brief description of the program, which realized a new method of the finding low contrast moving objects for automatic asteroid detection by small telescopes, equipped with CCD cameras. The result of program usage is presented.

Kahn E. G. Barnouin O. S. Buczkowski D. L. Ernst C. M. Izenberg N. Murchie S. Prockter L. M.

[\*A Tool for the Visualization of Small Body Data\*](#) [#1618]

This paper describes a new software tool called the Small Body Mapping Tool that was developed to facilitate the task of searching, visualizing, and analyzing data returned from small body missions.

Harada T. Kitazato K. Hirata N. Demura H. Asada N.

[\*A Rover Simulation Tool for Small Body Exploration\*](#) [#1960]

We have developed a simulation tool of the hopping rover for small body exploration. This simulator implements physics-based computing of the rover motion and its visualization.

Kohout T. Britt D.

[\*Magnetic Susceptibility as a Tool for Asteroid Exploration\*](#) [#1517]

Three methods of asteroid magnetic susceptibility determination are proposed. Magnetic susceptibility of asteroids of various clans can be used in the search for meteorite types of similar composition.

Lim L. F. Nittler L. R.

[\*The Effects of Surface Roughness on the NEAR XRS Elemental Results: Monte-Carlo Modeling\*](#) [#2222]

Monte-Carlo simulations are used to evaluate the potential effects of surface roughness on the Fe/Si, Ca/Si, and S/Si elemental results from the NEAR XRS experiment at 433 Eros.