

Monday, July 23, 2018
**SPECIAL SESSION: DEDICATED TO THE FAMOUS METEORITE FALLS
 IN RUSSIA (TUNGUSKA, CHELYABINSK)**
 3:30 p.m. Blue Room

**Chairs: Maria Gritsevich
 Tomas Kohout**

- 3:30 p.m. Gritsevich M. * Silber E. A.
[*Insights into Impact-Classification Scheme based on the Fireball Analysis*](#) [#6121]
 We demonstrate impact-classification scheme which can be used as a cornerstone of a future model capable to forecast consequences of meteoroids' interaction with the Earth's atmosphere and surface prior to their actual impact with the ground.
- 3:45 p.m. McMullan S. * Collins G. S.
[*Quantifying Uncertainty in Continuous Fragmentation Airburst Models*](#) [#6212]
 We investigate three commonly used semi-analytical models and quantify the uncertainty in model predictions that originates from the choice of model, numerical model parameters, and the physical properties of the meteoroid.
- 4:00 p.m. Kartashova A. P. * Popova O. P. Glazachev D. O. Jenniskens P. Podobnaya E. D.
[*Eyewitness Accounts and Modeling Results for Chelyabinsk Airburst*](#) [#6169]
 The Chelyabinsk event proved that a small space body can cause significant damage. The injuries were of different nature, and their distribution in general is in agreement with the result of numerical simulations of Chelyabinsk event.
- 4:15 p.m. Nishiizumi K. * Caffee M. W.
[*Cosmogenic Radionuclides in Chelyabinsk Meteorite \(Update\)*](#) [#6350]
 We measured cosmogenic radionuclides in Chelyabinsk meteorite to investigate its cosmic ray exposure age and preatmospheric shielding conditions.
- 4:30 p.m. Petrova E. V. * Kohout T. Grokhovsky V. I.
[*Spherical Shock Experiments with Chelyabinsk Meteorite: Characterization of Shock Gradient by Optical and Electron Microscopy*](#) [#6335]
 Four visually different zones obtained from the spherical shock experiment on the Chelyabinsk LL5 material were studied by optical and electron microscopy: shock melt, dark-colored, brighter-dark-colored and light-colored material.
- 4:45 p.m. Kohout T. * Petrova E. V. Yakovlev G. A. Grokhovsky V. I.
[*Spherical Shock Experiments with Chelyabinsk Meteorite: Change in Reflectance Spectra with Increasing Shock*](#) [#6327]
 The pressure conditions responsible for shock darkening of ordinary chondrites are narrow. Onset of silicate melting prevents sulfide melt to penetrate silicates, shock darkening ceases and reappears again only upon complete material melting.
- 5:00 p.m. Khakhalova E. * Bezaeva N. S. Cournede C. Feinberg J. M.
[*Application of Magnetic Force Microscopy Technique to Meteorites: A Case Study of Pecora Escarpment 91002 R Chondrite and Chelyabinsk Ordinary Chondrite*](#) [#6166]
 We investigated magnetic grains in PCA91002 Rumuruti chondrite from Antarctica and Chelyabinsk LL5 ordinary chondrite using magnetic force microscopy (MFM).
- 5:15 p.m. Voropaev S. A. * Dnestrovsky A. Y. Korochantsev A. V. Lorenz C. A.
 Dushenko N. V. Kocherov A. V.
[*Theoretical and Experimental Study of the Chelyabinsk Meteorite Destruction Under Complex Loading*](#) [#6005]
 We experimentally investigated the strength properties of the Chelyabinsk meteorite using 3-axial loading. Numerical simulation of the meteorite entry in the Earth's atmosphere shows that a very non-uniform pressure on its surface was occurred.