## KIAM Astrodynamics Day, June 28, 2019 Room 4 (formerly Room 26), Main Building

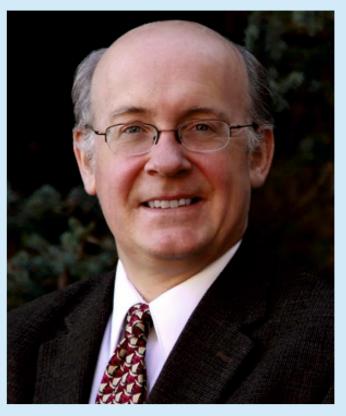




Dr. Kathleen C. Howell

Hsu Lo Distinguished Professor
of Aeronautics and Astronautics

Purdue University (United States)



Dr. Daniel J. Scheeres

University of Colorado Distinguished Professor
A. Richard Seebass Endowed Chair

University of Colorado at Boulder (United States)

10:00 Opening speech

Prof. Mikhail Ovchinnikov, Head of KIAM Space Systems Dynamics Department

## **Strongly Perturbed Orbital Dynamics**

10:10 Orbital Dynamics Around Rubble-Pile Binary and Contact Binary Asteroids

Prof. Daniel Scheeres, University of Colorado Boulder

10:50 Quasi-Satellite Orbit as a Resonant Phenomenon

Prof. Vladislav Sidorenko, KIAM/Moscow Institute of Physics and Technology

11:05 Station-Keeping in an Unstable High Near-Circular Lunar Orbit

Ms. Anastasia Tselousova, KIAM/Moscow Institute of Physics and Technology

## Coffee break

## **Multi-Body and Coupled Dynamics**

- Safe Undocking and Departure from a Lunar Station in a Near Rectilinear Halo Orbit *Prof. Kathleen Howell, Purdue University*
- 12:15 Coupled Dynamics in a Formation of Satellites with Variable-Reflectivity Solar Sails

  Dr. Stepan Tkachev, KIAM
- 12:30 Optimal Design of Multi-Spacecraft Formations in Lissajous Orbits

  Dr. Sergey Trofimov, KIAM
- 12:45 Closing remarks

  Prof. Mikhail Ovchinnikov, Head of KIAM Space Systems Dynamics Department