

OS6: Free Flight Experiment with MSBS and Ballistic Range

November 11, 2025

EX-3B

- OS6-1 **Studies of Tumbling Bluff Bodies at Low Speeds** (*Invited*)
9:00-9:30 Colin P. Britcher, Caleb Hull (Old Dominion University, USA), Mark Schoenenberger (NASA Langley Research Center, USA), Hisham Shehata (Analytical Mechanics Associates, USA)
- OS6-2 **Free-motion Wind Tunnel Testing of Lifting Capsules with Different Inertia Moments**
9:30-9:50 Naoki Kurosawa, Kazuyuki Ueno, Yuki Takeda, Keisuke Asai (Iwate University, Japan), Mamoru Kikuchi (Iwate Prefectural University Miyako Junior College, Japan), Hiroki Nagai, Tsubasa Ikami, Yoshihito Sasaki (Tohoku University, Japan)
- OS6-3 **Dynamic Stability of a Family of Earth Entry Vehicles using the Magnetic Suspension Dynamics Tunnel**
9:50-10:10 Caleb Hull, Colin Britcher (Old Dominion University, USA), Hisham Shehata (Analytical Mechanics Associates, Inc., USA), Mark Schoenenberger (NASA Langley Research Center, USA)
- OS6-4 **Investigation of Dynamic Instability for Hayabusa-type Reentry Capsule Using 1-m Magnetic Suspension and Balance System**
10:10-10:30 Yoshihito Sasaki, Hiroyuki Okuizumi, Tsubasa Ikami, Hiroki Nagai (Tohoku University, Japan)
- 10:30-10:45 BREAK
- OS6-5 **Experimental Investigation of Afterbody Geometry Effects on Dynamic Instability of Atmospheric Entry Capsule in Transonic Regime**
10:45-11:05 Jinyoung Kim (Seoul National University, Republic of Korea), Mithat Can Engin (Technical University of Berlin, Germany), Bok Jik Lee (Seoul National University, Republic of Korea), Hiroki Nagai (Tohoku University, Japan)
- OS6-6 **Comparison of Dynamic Stability of New Re-entry Capsule in Low Altitude Free-Flight Test at Different Flight Processes**
11:05-11:25 Hiroyasu Yoshimoto, Tsubasa Ikami, Koichi Takahashi (Tohoku University, Japan), Hiroki Takayanagi, Kazuhiko Yamada (Japan Aerospace Exploration Agency, Japan), Hiroki Nagai (Tohoku University, Japan)