

OS4: Flow Dynamics and Combustion Technology of Hybrid Rocket Propulsion, 13th Edition

October 28, 2021

ROOM4

- OS4-1 **Biomass Fuelization of WAX-based Solid Fuels for Hybrid Rockets by Cellulose Addition**
11:10-11:40 Yusuke Nishimura, Akiyo Takahashi, Kenichi Takahashi (Nihon University, Japan)
- OS4-2 **Thrust Modulation Characteristics of Hybrid Rocket Engine for VTVL System**
11:40-12:10 Donghoon Chae, Changjin Lee (Konkuk University, Korea)
- OS4-3 **Hybrid Rockets as Post-Boost Stages and Kick Motors**
14:00-14:30 Landon Kamps, Shota Hirai, Harunori Nagata (Hokkaido University, Japan)
- OS4-4 **Design and Burning Test of LOX Regenerative-cooling Nozzle for SOFT Hybrid Rocket Engine**
14:30-15:00 Takashi Sakurai, Kodai Kurachi, Rei Matsumoto, Hitomi Ozaki (Tokyo Metropolitan University, Japan)
- OS4-5 **Visualization of Liquefied Paraffin Wax in Hybrid Rocket Post-Chamber**
15:20-15:50 Wonjeong Hyun, Changjin Lee (Konkuk University, Korea)
- OS4-6 **Numerical Analysis of Combustion Chamber Flow in a Hybrid Rocket Two-dimensional Combustor Using the TCUP Method**
15:50-16:20 Akito Takeshita, Toru Shimada (Japan Aerospace Exploration Agency, Japan)
- OS4-7 **Evaluation of the Speed of Sound in Hybrid Rockets**
16:20-16:50 Maxime Sicat (The University of Tokyo, Japan), Toru Shimada (Japan Aerospace Exploration Agency, Japan) Carmine Carmicino (University of Naples Federico II, Italy)
- OS4-8 **Review of CFD Simulations of the Internal Ballistics of Paraffin-fuelled Hybrid Rocket Engines at the University of Naples**
17:10-17:40 Giuseppe Gallo, Carmine Carmicino (University of Naples “Federico II”, Italy)
- OS4-9 **Review on Internal Ballistics Research on Hybrid Rockets**
17:40-18:10 Toru Shimada (Japan Aerospace Exploration Agency, Japan)
- 18:10-18:40 WRAP-UP