

## OS7: Advances in Simulation Techniques for the Computational Aerosciences

November 6, 2023

CON-1

- OS7-1      **Application of PyFR to Design of Rotor Blades for Martian Helicopters (*Invited*)**  
17:30-18:10    Lidia Caros Roca, Oliver Buxton, Peter Vincent (Imperial College London, UK)
- OS7-2      **Comparison of ILES and RANS Computation for Turbulent Base Flow an  
18:10-18:30    Axisymmetric Body**  
Jaehyoung Park, Donguk Kim, Seungsoo Lee, Jin Seok Park (Inha University, Korea)
- OS7-3      **Stable and Non-Dissipative Flux Reconstruction Schemes in Split Forms:  
18:30-18:50    Preservation of Kinetic Energy and Entropy**  
Issei Homma, Hiroyuki Asada, Soshi Kawai (Tohoku University, Japan)

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- OS7-4      **Solution-Acceleration of High-Order Methods via Hybridized Implicit-Explicit Time  
9:00-9:20      Integration**  
Carlos A. Pereira, Brian C. Vermeire (Concordia University, Canada)
- OS7-5      **A Fully Coupled Block Implicit Solver for the Incompressible Navier-Stokes  
9:20-9:40      Equations on Collocated Grids**  
Mark A. George, Nicholas Williamson, Steven W. Armfield (University of Sydney, Australia)
- OS7-6      **Shock Reflection from an Axial Cylinder in Axisymmetric Flow**  
9:40-10:00    Ben Shoesmith, Evgeny Timofeev (McGill University, Canada), Hideaki Ogawa (Kyushu University, Japan)
- OS7-7      **Positivity-Preserving Entropy-Based Adaptive Filtering for Discontinuous Spectral  
10:00-10:20    Element Methods**  
Freddie D. Witherden (Texas A&M University, USA)
- OS7-8      **High-order Nonlinear Limiter for the Discontinuous Galerkin Method on  
10:40-11:00    Unstructured Meshes**  
Yizhou Lu, Jun Zhu, Zhenming Wang, Linlin Tian, Ning Zhao (Nanjing University of Aeronautics and Astronautics, China)
- OS7-9      **Very-high-order BVD Schemes Using  $\beta$ -variable THINC Method**  
11:00-11:20    Hiro Wakimura, Takayuki Aoki, Feng Xiao (Tokyo Institute of Technology, Japan)
- OS7-10     **Simulation Framework for Wake-Induced Aeroelastic Phenomena**  
11:20-11:40    Keisuke Otsuka, Tomoki Yamazaki, Yoshiaki Abe (Tohoku University, Japan), Takanori Haga (Japan Aerospace Exploration Agency, Japan)

- OS7-11      **Multiple Flow Fields Gathering in a Reduced Order Model**  
11:40-12:00      Yuto Nakamura, Shintaro Sato, Naofumi Ohnishi (Tohoku University, Japan)
- OS7-12      **Optimal Flapping Manoeuvres of 2D Flexible Wings**  
13:10-13:30      Yinan Wang (University of Liverpool, UK), Juan Li (King's College London, UK)
- OS7-13      **Structural Sizing of a Wing-Fuselage Model Using One-way Coupling Analysis**  
13:30-13:50      Rashmikant, Tomoki Yamazaki, Yoshiaki Abe (Tohoku University, Japan)
- OS7-14      **Fully-partitioned Method for Static Aeroelasticity and Deep Dynamical Modeling for Unsteady Fluid-structure Interaction**  
13:50-14:10      Tomoki Yamazaki, Yoshiaki Abe (Tohoku University, Japan), Freddie D. Witherden (Texas A&M University, USA), Tomonaga Okabe (Tohoku University, Japan)
- OS7-15      **Optimal Design of Composite Plate Wings for Aeroelastic Characteristics based on Complex Modulus Approach**  
14:10-14:30      Masaki Kameyama, Kohei Kawakami (Shinshu University, Japan)
- OS7-16      **Influence of Ground Clearance on Aerodynamic Characteristics of Aero-Train**  
14:50-15:10      Junhai He, Chenguang Lai, Jie Song (Chongqing University of Technology, China), Shigeru Obayashi (Tohoku University, Japan)
- OS7-17      **Investigation on Vortex Structure and Flow Characteristics of Open-wheel Racing Car**  
15:10-15:30      Zeyu Zhen, Chenguang Lai, Shuai Feng (Chongqing University of Technology, China)
- OS7-18      **Advances in High-Order Weighted Essentially Non-Oscillatory Schemes with Arbitrary Linear Weights for Compressible Flow Problems**  
15:30-15:50      Ning Zhao, Jun Zhu, Linlin Tian, Zhenming Wang (Nanjing University of Aeronautics and Astronautics, China)
- OS7-19      **CFD Prediction Accuracy Study Based on Physical Wind Tunnel Model**  
15:50-16:10      Menghua Duan, Jinyang Feng, Shunqiao Huang, Yi Chen, Qingyang Wang, Lei Xu (China Automotive Engineering Research Institute Co., Ltd., China)