OS15: Turbulence: from Fundamentals to Applications

October 28, 2021
ROOM6

OS15-1
11:10-11:30
Effect of Plate Trailing Edge Deformations on Jet Flow and Noise: An LES Investigation
Colby Horner, Adrian Sescu (Mississippi State University, USA), Mohammed Z. Afsar (University of Strathclyde, UK), Eric Collins (Mississippi State University, USA)

OS15-2
11:30-11:50
Numerical Simulations of the Performance of a Twin Screws Expander
Je-Wei Yeh, Chia Cheng Tsao (National Yang Ming Chiao Tung University, Taiwan), Kai-Yuan Lai (National Yang Ming Chiao Tung University / Industrial Research Institute, Taiwan), Yi-Chen Li (Industrial Research Institute, Taiwan), Savas Yavuzkurt, Yao-Hsien Liu (National Yang Ming Chiao Tung University, Taiwan)

OS15-3
11:50-12:10
Searching for Subgrid-Scale Model for Burgers Equation Using Neural Network
Golsa Tabe Jamaat, Yuji Hattori (Tohoku University, Japan)

OS15-4
13:40-14:00
Temporal Behavior of Significant Shear Layers in High Reynolds Number Turbulence
Takashi Ishihara (Okayama University, Japan)

OS15-5
14:00-14:20
Large-scale Clustering in Particle-Laden Homogeneous Isotropic Turbulence
Keigo Matsuda (Japan Agency for Marine-Earth Science and Technology, Japan), Kai Schneider (Aix-Marseille Université, France), Katsunori Yoshimatsu (Nagoya University, Japan)

OS15-6
14:20-14:40
Spectra of Supersaturation and Liquid Water Content in Cloud Turbulence
Toshiyuki Gotoh (Nagoya Institute of Technology / Keio University, Japan), Izumi Saito, Takeshi Watanabe (Nagoya Institute of Technology, Japan)

OS15-7
14:40-15:00
Numerical Investigation about Inverse Cascade Phenomenon in Mixing Layer
Muyang Wang, Yasumasa Ito, Takumi Okawa, Koji Iwano (Nagoya University, Japan), Yasuhiko Sakai (Nagoya Industrial Science Research Institute, Japan)

OS15-8
15:20-15:40
Experimental Study on Turbulent Boundary Layer over Compliant Wall
Kazuma Kori, Nobuyoshi Fujimatsu (Toyo University, Japan)

OS15-9
15:40-16:00
Scaling of Turbulence Statistics in Adverse-Pressure-Gradient Turbulent Boundary Layer Flow
Atsushi Sekimoto (Okayama University, Japan), Vassili Kitsios (CSIRO Oceans and Atmosphere / Monash University, Australia), Callum Atkinson, Julio Soria (Monash University, Australia)

OS15-10 16:00-16:20 **Comparison of Experimental Results and DNS for Secondary Instability in Turbulent Boundary Layer**
Tomoya Kikugawa, Katsumi Tsuboko, Ayato Ozeki, Ken Shigeeda, Masaharu Matsubara (Shinshu University, Japan)

OS15-11 16:20-16:40 **LDV Measurement Issues for High Reynolds Number Turbulent Pipe Flow**
Marie Ono (National Institute of Advanced Industrial Science and Technology (AIST) / Nagoya University, Japan), Noriyuki Furuichi, Noboru Kurihara (National Institute of Advanced Industrial Science and Technology (AIST), Japan), Yuki Wada (Japan Atomic Energy Agency (JAEA), Japan), Yoshiyuki Tsuji (Nagoya University, Japan)

OS15-12 17:10-17:30 **Analysis of Very Large-Scale Motion Estimated from Cross-sectional Distribution of Velocity Correlation of in a Turbulent Channel Flow**
Katsumi Tsuboko, Yuya Tanada, Tomoya Kikugawa, Ayato Ozeki, Ken Shigeeda, Masaharu Matsubara (Shinshu University, Japan)

OS15-13 17:30-17:50 **Measurement of High Schmidt Number Scalar Mixing in Grid Generated Turbulence**
Koji Iwano, Michihiro Suzuki (Nagoya University, Japan), Yasuhiko Sakai (Nagoya Industrial Science Research Institute, Japan), Yasumasa Ito (Nagoya University, Japan)

OS15-14 17:50-18:10 **Trajectory Analysis of Particle Motions in Superfluid Helium-4 using PTV Method**
Lizhu Chen, Yoshiyuki Tsuji (Nagoya University, Japan)

OS15-15 18:10-18:30 **Under-expanded Exit Conditions in Supersonic Axisymmetric Jets Induce Large-scale Temporal 'Negative-loops' in High-order Turbulence Correlations**
Sarah Stirrat, Mohammed Afsar (University of Strathclyde, UK), Gabriele Camerlengo, Jörn Sesterhenn (University of Bayreuth, Germany)