

OS13: Flow Realization, Measurement and Visualization

November 20, 2024

EX-4-B

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| OS13-1
9:00-9:15 | Investigation of Heat Transfer Enhancement in Pool Condition under High-Frequency and Low-Frequency Ultrasonic Vibration
<u>Chen-Chi Hung</u> , Po-Hung Hsu, Yu-Ting Su, Yi-Hsuan Lin, Shao-Wen Chen, Hsin-Ju Lee (National Tsing Hua University, Taiwan) |
| OS13-2
9:15-9:30 | Supervised Learning Applied to Flow Regime Identification of Two-Phase Flow in a Forced-Vibration Rectangular Tube
<u>Hsin-Ju Lee</u> , Han-Yao Chen, Shao-Wen Chen, Chen-Chi Hung, Yi-Hsuan Lin (National Tsing Hua University, Taiwan) |
| OS13-3
9:30-9:45 | Unsupervised Learning Applied to Flow Regime Identification of Gas-Liquid Two-Phase Flow in Vertical Narrow Rectangular Tube
Yi-Hsuan Lin, <u>Chen-Chi Hung</u> , Hsin-Ju Lee, Shao-Wen Chen (National Tsing Hua University, Taiwan) |
| OS13-4
9:45-10:00 | Large Eddy Simulations of Transonic Diffuser Flows
<u>Masaki Okajima</u> , Takahiro Yamashita, Shinichiro Nakao, Yoshiaki Miyazato (The University of Kitakyushu, Japan) |
| OS13-5
10:00-10:15 | Quantitative Flow Visualization of Shock-Dominated Flows by MZI
<u>Takahiro Yamashita</u> , Masaki Okajima, Shinichiro Nakao, Yoshiaki Miyazato (The University of Kitakyushu, Japan) |
| OS13-6
10:15-10:30 | Three-Dimensional Structure of a High-Aspect-Ratio Elliptic Underexpanded Sonic Jet
<u>Takumi Sakashita</u> , Tatsuya Nagata, Shinichiro Nakao, Yoshiaki Miyazato (The University of Kitakyushu, Japan) |
| OS13-7
10:40-10:55 | Investigation of Number of Blades with a Focus on Enhancing Cross-flow Turbine Manufacturing
<u>Seita Takeshima</u> , Ken Suzuno, Gen Katagiri, Tatsuya Arai, Shouichiro Iio (Shinshu University, Japan), Tomomi Uchiyama (Nagoya University, Japan), Kotaro Takamure (Akita University, Japan) |
| OS13-8
10:55-11:10 | Relationship between Performance of Propeller Turbine and Blade Solidity
<u>Futaba Miura</u> , Takuhito Sei, Sorato Hashimoto, Shouichiro Iio (Shinshu University, Japan), Tomomi Uchiyama (Nagoya University, Japan) |
| OS13-9
11:10-11:25 | Effect of Guide Vane on the Performance of Waterfall Cross-Flow Hydro Turbines
<u>Ko Moriya</u> , Takayuki Yamagata (Niigata University, Japan), Nobuyuki Fujisawa (Shinshu University, Japan) |
| OS13-10
11:25-11:40 | Dynamic Response of Three-Dimensional Transient Flow in a Centrifugal Fan Using Dynamic Mode Decomposition with Control
<u>Shunsuke Maruyama</u> , Izuru Kambayashi, Akihito Kiyama, Donghyuk Kang (Saitama University, Japan) |

- OS13-11
11:40-11:55 **Flow Characteristics of Charged Particles in a Swirling Flow Under the Influence of an Electric Field in a Circular Pipe**
Taketo Haruki, Kirita Yoshimi, Tetsuya Yagi, Hiroshi Amano (Nagoya University, Japan), Yasumasa Iwatani (Nagoya Medical Center, Japan), Tomomi Uchiyama (Nagoya University, Japan), Kotaro Takamure (Akita University, Japan)
- OS13-12
11:55-12:10 **Experimental Study on Passive Control of Supersonic Jet Noise**
Shunta Togoshi, Shinichiro Nakao, Yoshiaki Miyazato (The University of Kitakyushu, Japan)
- OS13-13
13:10-13:25 **Experimental Study of Ninja-Star Underexpanded Sonic Jets**
Ryo Uchida, Shinichiro Nakao, Yoshiaki Miyazato (The University of Kitakyushu, Japan)
- OS13-14
13:25-13:40 **Fundamental Study on Effective Positions of a Feedback Force in Measurement-integrated simulation for Flow around a Circular Cylinder**
Kota Hirose, Suguru Miyauchi (University of Miyazaki, Japan)
- OS13-15
13:40-13:55 **Visualization of The Wake Behind a NACA Blade with Truncated Rear End**
Sota Tsukamoto (Nagoya University, Japan), Kotaro Takamure (Akita University, Japan), Tomomi Uchiyama (Nagoya University, Japan)
- OS13-16
13:55-14:10 **Effect of Deflector Angles on Drag of Ahmed Body**
Pham Van Duy (Hanoi University of Science and Technology, Vietnam), Tran The Hung (Le Quy Don Technical University, Vietnam), Gopal Sharma, Jun Tanimoto (Kyushu University, Japan)
- OS13-17
14:10-14:25 **Experimental Study on Flow Visualization Technique in Low Aspect Ratio Thin Wing at Critical Reynolds Numbers**
Yi-Chung Liu (National Chung-Shan Institute of Science and Technology, Taiwan)
- OS13-18
14:25-14:40 **Flow Structures of Unsteady Supersonic Free Jets from a Round Laval Nozzle**
Hiromu Ueno, Ryota Fukuda, Shinichiro Nakao, Yoshiaki Miyazato (The University of Kitakyushu, Japan)
- OS13-19
14:50-15:05 **Influence of a Low-Pass Filtered Reconstructed Volume on the Measurement Accuracy of Holographic Particle Tracking Velocimetry**
Yohsuke Tanaka, Mitsuki Ishiyama, Dai Nakai (Kyoto Institute of Technology, Japan)
- OS13-20
15:05-15:20 **Velocity Reconstruction of Three-dimensional Velocity Field Measured by Stereo PIV using Helmholtz Decomposition**
Akari Saito, Yohsuke Tanaka (Kyoto Institute of Technology, Japan)
- OS13-21
15:20-15:35 **High-frequency Ultrasound Imaging Analysis of Intravascular Flow Dynamics in Metastatic Lymph Nodes**
Kazuki Maeda, Daichi Kuramoto, Yuya Okada, Reito Miyazaki (Tohoku University, Japan), Masaaki Omura (University of Toyama, Japan), Ariunbuyan Sukhbaatar, Shiro Mori, Tetsuya Kodama (Tohoku University, Japan)

- OS13-22
15:35-15:50 **Relationship Between Impact Forces and Erosion Initiation in Pulsed Jet Tests on Erosion of Wind Turbine Blades**
Gaku Ikarashi, Haruki Furukawa, Takayuki Yamagata (Niigata University, Japan), Nobuyuki Fujisawa (Shinshu University, Japan), Kei Fujisawa (Yokohama National University, Japan), Motofumi Tanaka (National Institute of Advanced Industrial Science and Technology (AIST), Japan)
- OS13-23
15:50-16:05 **Numerical Analysis of Rain-induced Erosion in Wind Turbine Blades**
Kei Fujisawa (Yokohama National University, Japan), Takayuki Yamagata (Niigata University, Japan), Nobuyuki Fujisawa (Shinshu University, Japan), Motofumi Tanaka (National Institute of Advanced Industrial Science and Technology (AIST), Japan)
- OS13-24
16:05-16:20 **Experimental Study of Transient Shock Wave Behavior in a Transonic Diffuser**
Hiroki Kodama, Shinichiro Nakao, Yoshiaki Miyazato (The University of Kitakyushu, Japan)