

## General Schedule

DAY	TIME	EVENT	LOCATION & THEME		
May 22 <sup>th</sup>	16:00-22:00	Registration	Lobby of Vision Hotel		
May 22 <sup>th</sup>	18:00-21:00	Reception	Dining Hall of Vision Hotel		
May 23 <sup>th</sup>	8:00-18:00	Registration	Lobby of Beihang Conference Center of Beihang University		
			No.1 Lecture Hall*	No.2 Lecture Hall*	No.8 Meeting Room*
May 23 <sup>th</sup>	9:30-9:50	Open Ceremony	Opening Ceremony		
	9:50-10:20	Group Photo & Tea Break			
	10:20-11:10	Plenary Lecture	Prof. Ellen K. Longmire		
	11:10-12:00	Plenary Lecture	Prof. Zhou Y		
	12:00-13:30	Lunch	Dining Hall of Beihang Training Center		
	13:30-15:45	Session I	Transition and Turbulent Flow (1)	Nakayama-Lian Memorial Session (1)	Micro, Nano and Bio Flow
	15:45-16:00	Tea Break			
	16:00-18:00	Session II	Transition and Turbulent Flow (2)	Nakayama-Lian Memorial Session (2)	Mind Topology
	18:00-20:30	Dinner			
May 24 <sup>th</sup>	8:30-9:20	Plenary Lecture	Prof. Noel T. Clemens		
	9:20-10:10	Plenary Lecture	Prof. Koji Koyamada		
	10:10-10:30	Tea Break			
	10:30-12:15	Session III	Optical Measurement Method (1)	Heat Transfer, Convection and Reactive Flow (1)	Visual Information and Analysis
	12:15-13:30	Lunch	Dining Hall of Beihang Training Center		
	13:30-15:00	Session IV	Optical Measurement Method (2)	Heat Transfer, Convection and Reactive Flow (2)	Multiphase and Interface Flow (1)
	15:00-15:15	Tea Break			
	15:15-16:45	Session V	Optical Measurement Method (3)	Heat Transfer, Convection and Reactive Flow (3)	
	16:45-18:00	Lab Visit			
	17:00-18:00				Committee Board Meeting
May 25 <sup>th</sup>	8:30-9:20	Plenary Lecture	Prof. Deog Hee Doh		
	9:20-10:10	Plenary Lecture	Prof. Patrick Tabeling		
	10:10-10:30	Tea Break			
	10:30-12:15	Session VI	Flow Control (1)	Compressible Flows and Gas Dynamics (1)	Multiphase and Interface Flow (2)
	12:15-13:30	Lunch			
	13:30-15:45	Session VII	Flow Control (2)	Compressible Flows and Gas Dynamics (2)	Industrial, Environment and Wind Engineering Flow
	15:45-16:00	Tea Break			
	16:00-17:30	Session VIII	Flow Control (3)	Compressible Flows and Gas Dynamics (3)	
	18:00-21:00	Closing Ceremony, Nakayama-Wei Award			
May 26 <sup>th</sup>	7:30-17:00	Technique Tour			

\* the conference venue is the **Conference Center of Beihang University**

## Plenary Lecture

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<b>May 23<sup>rd</sup></b>	<b>No.1 Lecture Hall</b>	<b>Chair: Prof. J. C. Li, Prof. K. C. Kim</b>
10:20-11:10	Organization and Evolution of Coherent Structures in Turbulent Boundary Layers (ASV14-PT-01)	<b>Prof. Ellen K. Longmire</b> , University of Minnesota, USA
11:10-12:00	Visualized Turbulent Jet under the Manipulation of Unsteady Minijets (ASV14-PT-02)	<b>Prof. Yu Zhou</b> , Harbin Institute of Technology, Shenzhen, China

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<b>May 24<sup>th</sup></b>	<b>No.1 Lecture Hall</b>	<b>Chair: Prof. V. V. Kozlov, Prof. H. H. Hwung</b>
8:30-9:20	Novel planar laser-induced fluorescence techniques for visualizing supersonic turbulent flows (ASV14-PT-03)	<b>Prof. Noel T. Clemens</b> , The University of Texas at Austin, USA
9:20-10:10	Visual Causality Exploration for Scientific Discovery (ASV14-PT-04)	<b>Prof. Koji Koyamada</b> , Kyoto University, Japan

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<b>May 25<sup>th</sup></b>	<b>No.1 Lecture Hall</b>	<b>Chair: Prof. A. Goto, Prof. Z. H. Li</b>
8:30-9:20	Diagnoses on Flows and Solid Bodies with 3D Image Measurements and Laser Techniques (ASV14-PT-05)	<b>Prof. Deog Hee Doh</b> , Korea Maritime and Ocean University, Korea
9:20-10:10	Microfluidic Actuators Based on Temperature-Responsive Hydrogels (ASV14-PT-06)	<b>Prof. Patrick Tabeling</b> , Institut Pierre-Gilles de Gennes, MMN ESPCI, Paris, France

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## Session Program (May 23<sup>rd</sup>)

### Session I 13:30-15:45PM, May 23<sup>rd</sup>

<b>Transition and Turbulent Flow (1)</b>		<b>No.1 Lecture Hall</b>	<b>Chair: H. Hirahara, M. M. Katasonov</b>	
13:30-13:45	Scale-to-scale energy and enstrophy transport in Two-Dimensional Rayleigh-Taylor Turbulence (ASV14-TT-01)		<b>Q. Zhou</b>	China
13:45-14:00	The role of two-dimensional roughness element in laminar-turbulent transition near the swept wing leading edge (ASV14-TT-02)		<b>S. Tolkachev, V. Kozlov, V. Kaprilevskaya</b>	Russia
14:00-14:15	Velocity-Vorticity Correlation Structures (VVCS) in spatially developing compressible turbulent boundary layer (ASV14-TT-03)		<b>S. Y. Li, J.Chen</b>	China
14:15-14:30	Visualization of Dynamic Vortex Structures in Pulsatile Flows Passing Through 3D Stenotic Bent Vessels (ASV14-TT-04)		<b>H. Hong, H. S. Ji, et al.</b>	Korea
14:30-14:45	How gravity and size affect the acceleration statistics of bubbles and light particles in turbulence (ASV14-TT-05)		<b>C. Sun, V. Mathai, et al.</b>	China
14:45-15:00	The Pattern Formation and Spectrum of Temperature Field in Bénard-Marangoni Convection (ASV14-TT-06)		<b>D. Wu, L. Duan, et al.</b>	China
15:00-15:15	Investigation of multi-scale coherent structure in flat turbulent boundary layer based on Tomo-PIV technology (ASV14-TT-07)		<b>R. X. Xuan, J. Sun, et al.</b>	China
15:15-15:30	Tomographic PIV measurements on turbulent boundary layer flow perturbed by a dynamically cylindrical element (ASV14-TT-08)		<b>Z. Q. Tang, N. Jiang, W. Y. Chen, et al.</b>	China
15:30-15:45	On Unsteadiness Control of a Laminar Wing-Plate Junction Flow (ASV14-TT-09)		<b>J. H. Liu, X. X. Peng, et al.</b>	China
<b>Nakayama-Lian Memorial Session (1)</b>		<b>No.2 Lecture Hall</b>	<b>Chair: Q. D. Wei, S. Ito</b>	
13:30-13:45	Memorial talk of Prof. Nakayama and Prof. Lian (ASV14-NL-01)		<b>Q. D. Wei</b>	China
13:45-14:05	Synchronization of PIV Measurement and Force Measurement on Soccer Ball Wake (ASV14-NL-02)		<b>S. Ito, K. Miyasaka, et al.</b>	Japan
14:05-14:25	Visualization of conventional and combusting subsonic jet instabilities (ASV14-NL-03)		<b>V. V. Kozlov</b>	Russia
14:25-14:45	Flow Visualization: from Low Speed to High Speed Flow (ASV14-NL-04)		<b>C. B. Lee</b>	China
14:45-15:05	Phosphorescence Camera for Temperature Field Visualization at Harsh Environments (ASV14-NL-05)		<b>K. C. Kim, D. Kim</b>	Korea
15:05-15:25	Visualization of Separated Flow Features Induced by Different Geometric Shape of Cylinder at Hypersonic Speed (ASV14-NL-06)		<b>C. Cui, S. X. Li, Z. Y. Ni</b>	China

<b>Nakayama-Lian Memorial Session (1) No.2 Lecture Hall</b>		<b>Chair: Q. D. Wei, S. Ito</b>	
15:25-15:45	Discussion on the phenomenon in the critical regime of the flow around circular cylinder (ASV14-NL-07)	Y. H. Lai, J. J. Miao	Taiwan

<b>Micro, Nano and Bio Flow</b>		<b>No.8 Meeting Room</b>		<b>Chair: H.-B. Kim, S. J. Xu</b>	
13:30-13:45	Rapid Drop Bouncing on Superhydrophobic Surfaces with Submillimeter-scale Posts (ASV14-MN-01)	R. Zhang, F. He, et al.	China		
13:45-14:00	Pulsatile flow characterization of carotid artery stenosis in pre- and post-operative phantoms using magnetic resonance velocimetry (ASV14-MN-02)	Seungbin Ko, S.Song, D. Kim	Korea		
14:00-14:15	Influence of the downstream flexible wall on the bubble generation in the T-junction (ASV14-MN-03)	X. Wang, Y. Pang, et al.	China		
14:15-14:30	Mixing characterization inside micro-droplets coalesced by two components in cross-structure (ASV14-MN-04)	Y. L. Ren, Z. M. Liu	China		
14:30-14:45	Investigation on Wake Structure of a Cyclist Model at the Hoods Position (ASV14-MN-05)	S. R. Li, J. J. Miao, Van Phung, Mai	Taiwan		
14:45-15:00	The coalescence process of droplet pairs at different intersection chambers (ASV14-MN-06)	X. Wang, Y. Pang, et al.	China		
15:00-15:15	Experimental study on internal flow field of microdroplets moving in a rectangular microchannel (ASV14-MN-07)	L. X. Zhang, Z. M. Liu, et al.	China		
15:15-15:30	Wake dynamic behind an oscillating vibrissa-shaped cylinder: TR-PIV experiment in wind tunnel based on CW laser (ASV14-MN-08)	S. F. Wang, Y. J. Chen, et al.	China		
15:30-15:45	Microparticle recirculating and spinning in a cavity using microfluidics (ASV14-MN-09)	F. Shen, X. Min, et al.	China		

**Session II 16:00-18:00PM, May 23<sup>rd</sup>**

<b>Transition and Turbulent Flow (2)</b>		<b>No.1 Lecture Hall</b>		<b>Chair: C. Sun, J. H. Liu</b>	
16:00-16:15	Generation of disturbances by localized surface vibrations in a flat plate boundary layer (ASV14-TT-10)	M. Katasonov, V. V. Kozlov, et al.	Russia		
16:15-16:30	An extended Richtmyer-Meshkov instability (ASV14-TT-11)	L. Y. Zou, J. H. Liu, et al.	China		
16:30-16:45	Vortex modes behind a cylinder with a decreased stream-wise oscillating frequency (ASV14-TT-12)	J. S. Liu, Z. W. Hu, et al.	China		
16:45-17:00	Experimental investigation of coherent structure in the turbulent boundary layer of particle-laden flows (ASV14-TT-13)	S. Jiao, T. D. Gao, et al.	China		
17:00-17:15	Identification on the transitional flows in front of a circular cylinder near a plane boundary (ASV14-TT-14)	F. F. Tong, L. Cheng, et al.	Australia		
17:15-17:30	Large-Scale Circulation when Tilting a Rayleigh-Bénard Convection (ASV14-TT-15)	S. N. Xia, Q. Zhou	China		

17:30-17:45	The Investigation of Laminar-Turbulent Transition Behind the Localized Roughness on the Swept Wing Leading Edge (ASV14-TT-16)	S. Tolkachev, V. Kozlov, et al.	Russia
17:45:18:00	Heat Transport Enhancement and Flow Changes by Instability in Partitioned Thermal Convection (ASV14-TT-17)	Z. P. Lin, Y. Bao	China

**Nakayama-Lian Memorial Session (2) No.2 Lecture Hall Chair: Q. D. Wei, S. Ito**

16:00-16:20	Recent Investigations of Wall Turbulence Production Mechanisms (ASV14-NL-08)	Y. Kachanov, V. I. Borodulin	Russia
16:20-16:40	Directly Microscopic Observation of PM2.5/PM10 Aerosol Micro-particles (ASV14-NL-09)	X. Zheng, Zhanhua Silber-Li, et al.	China
16:40-17:00	Streak image based improved tomographic particle image velocimetry (ASV14-NL-10)	K. Ohmi	Japan
17:00-17:20	The Water Tunnel/Channel Design and Applications in Beihang University (ASV14-NL-11)	H. Zhang	China
17:20-17:40	Boundary Layer Transition Delay by the Steady Streaks Introduced at Supercritical Reynolds Number (ASV14-NL-12)	H. Guo, L. L. Gao	China
17:40-18:00	Free Discussion		

**Mind Topology No.8 Meeting Room Chair: C. Kato**

16:00-16:15	Visualization of Mind (ASV14-MT-07)	C. Kato et al.	Japan
16:15-16:30	A representation of state of mind: a vector notation with kinetic analogy (ASV14-MT-02)	H. Hirahara, K. Aoki, et al.	Japan
16:30-16:45	Extraction and Visualization of Mental Features Based on Athletes' Statements (ASV14-MT-06)	K. Aoki, Y. Shiono, et al.	Japan
16:45:17:00	Graph Representations of the Mind (ASV14-MT-03)	K. Tsuchida, K. Aoki, et al.	Japan
17:00-17:15	Study for Visualizing the Flow of Conversation in Counseling (ASV14-MT-01)	Y. Ebara	Japan
17:15-17:30	Visual Representation of Directed Connectivity in the Human Cortical Network based on Dynamical Causal Modeling (ASV14-MT-04)	H. Natsukawa, K. Koyamada	Japan
17:30-17:45	Interactive Model Building and Visualization for Structural Equation Modeling (ASV14-MT-05)	Y. Onoue, Y. Ashida, et al.	Japan

## Session Program (May 24<sup>th</sup>)

### Session III 10:30-12:15AM, May 24<sup>th</sup>

<b>Optical Measurement Method (1)</b>		<b>No.1 Lecture Hall</b>	<b>Chair: S. X. Li, B. Suwantragul</b>	
10:30-10:45	Light Field Particle Image Velocimetry (ASV14-OM-01)		J. F. Ding, S. X. Shi	China
10:45-11:00	Flow and Temperature Visualization of a Heated Vortex Ring Using Temperature Sensitive Particle (ASV14-OM-02)		W. H. Tien, C. Y. Lin	Taiwan
11:00-11:15	Study on measurement of 3D movement for particles based on defocused image (ASV14-OM-03)		M. H. Jia, W. Z, et al.	China
11:15-11:30	The application of PSP technique on flexible airfoil with deflectable trailing edge in 0.6m transonic wind tunnel (ASV14-OM-04)		H. Huang, J. Xiong, et al.	China
11:30-11:45	Application of shear-sensitive liquid crystal coating on flow visualization of compressor cascade (ASV14-OM-05)		R. Y. Li, L. M. Gao, et al.	China
11:45-12:00	Evolution of perturbations generated by localized vibration behind the ledge of the surface in laminar flow (ASV14-OM-06)		A. Pavlenko, M. M. Katasonov, et al.	Russia
12:00-12:15	Flow imaging using infrared thermography of external flows (ASV14-OM-07)		K. Thangaveloo, Y. S. Chin, et al.	Malaysia
<b>Heat Transfer, Convection and Reactive Flow (1)</b>				
		<b>No.2 Lecture Hall</b>	<b>Chair: Y. T. Chew, H. D. Xi</b>	
10:30-10:45	A kinetic structure in turbulent Rayleigh-Bénard convection (ASV14-HC-01)		Z. X. Yin, J. Chen, et al.	China
10:45-11:00	Effect of Inclined Ribs on Heat Transfer Coefficient in Stationary Square Channel (ASV14-HC-02)		N. Kaewchoothong, K. Maliwan, et al.	Thailand
11:00-11:15	Experimental research on instabilities of thermocapillary-buoyancy convection in rectangular liquid layers (ASV14-HC-03)		H. Jiang, L. Duan, et al.	China
11:15-11:30	Instability and transition patterns of buoyant-thermocapillary convection in a thin annular liquid pool (ASV14-HC-04)		D. L. Sheng, D. Li, et al.	China
11:30-11:45	Effect of Jet-to-mainstream Velocity Ratio on Heat Transfer Characteristics of Vortex Generating Jet (ASV14-HC-05)		C. Nuntadusit, N. Puzu, et al.	Thailand
11:45-12:00	Transition to chaos in bouyant-thermocapillary convection in a large scale liquid bridge with large Prandtl number (ASV14-HC-06)		J. Wang, D. Wu, et al.	China
12:00-12:15	Statistics of kinetic and thermal energy dissipation rates in two-dimensional turbulent Rayleigh-Bénard convection (ASV14-HC-07)		Y. Zhang, Q. Zhou, et al.	China

<b>Visual Information and Analysis</b>		<b>No.8 Meeting Room</b>	<b>Chair: C. T. Hsu, C. Lin</b>	
10:30-10:45	Experimental Study and Flow visualization of Tip Vortices of a Wing Close to Curved Surface (ASV14-VI-01)		<b>K. N. He</b> , Q. Dai	China
10:45-11:00	The Instability and Its Spatial Evolution in the Supersonic Confluent Boundary/Mixing Layers (ASV14-VI-02)		<b>X. T. Shi</b> , F. J. Liu, et al.	China
11:00-11:15	High Speed Schlieren Visualization of Hypersonic Separated Flow Induced by a Perpendicular Blunt Fin (ASV14-VI-03)		<b>J. K. Ma</b> , S. X. Li, et al.	China
11:15-11:30	Large eddy simulation of high Reynolds number flow around a near wall cylinder (ASV14-VI-04)		H. W. An, <b>L. Cheng</b> , et al.	Australia
11:30-11:45	On the flow visualization for assessment in the analysis and design of a conical hollow shaped impeller (ASV14-VI-05)		<b>W. Sanghirun</b> , W. Asvapoositkul	Thailand
11:45-12:00	Applying Structure from Motion in Laboratory Topography Measurement (ASV14-VI-06)		<b>K. S. Hwang</b> , K. Y. Hsiao, et al.	Taiwan
12:00-12:15	Topology Transition of Flow Separation/Attachment and its Relationship with Velocity Characteristic Curves in Juncture Flows (ASV14-VI-07)		<b>B. Hu</b> , H. Zhang	China

**Session IV 13:30-15:00PM, May 24<sup>th</sup>**

<b>Optical Measurement Method (2)</b>		<b>No.1 Lecture Hall</b>	<b>Chair: K. Ohmi, Y. Z. Liu</b>	
13:30-13:45	Thermographic Phosphor Measurements of Boundary Layer Transition on a Delta-wing (ASV14-OM-08)		<b>G. S. Jia</b> , S. G. Han, et al.	China
13:45-14:00	Improvement of spatial resolution for magnetic resonance velocimeter with a custom-made RF coil (ASV14-OM-09)		<b>B. K. Yang</b> , S. Song, et al.	Korea
14:00-14:15	PIV-PSP Hybrid System Based on Pressure Sensitive Particles (ASV14-OM-10)		<b>F. Gu</b> , D. Peng, et al.	China
14:15-14:30	Investigation of Unsteady Pressure Measurement and Visualization using Fast Response PSP (ASV14-OM-11)		<b>J. B. Yu</b> , Z. Huang, et al.	China
14:30-14:45	Development and calibration of OLED-based PSP system (ASV14-OM-12)		<b>J. W. Chen</b> , L. R. Jiao, et al.	China
14:45-15:00	Measurement of Surface Shear Stress Vector Distribution Beneath Jet Flow Using Shear-Sensitive Liquid Crystal Coating (ASV14-OM-13)		J. S. Zhao, <b>C. P. Wang</b> , J. Yun, et al.	China

<b>Heat Transfer, Convection and Reactive Flow (2)</b>		<b>No.2 Lecture Hall</b>	<b>Chair: Q. Kang, W. Asvapoositkul</b>	
13:30-13:45	Development of a High Performance Flexible Porous medium Burner (FPMB) with an Adjustable Cooling Effect (ASV14-HC-08)		<b>S. Juntron</b> , S. Jugjai	Thailand

**Heat Transfer, Convection and**

**No.2 Lecture Hall**

**Chair: Q. Kang, W. Asvapoositkul**

**Reactive Flow (2)**

13:45-14:00	Higher-order flow modes and their roles in reversal and cessation of the large-scale circulation in turbulent Rayleigh-Benard convection (ASV14-HC-09)	H. D. Xi, Y. B. Zhang, et al.	China
14:00-14:15	Cellular Premixed Flames induced by variation of C <sub>3</sub> H <sub>8</sub> /C <sub>4</sub> H <sub>10</sub> on Flat Burner (ASV14-HC-10)	T. Pimtawong, A. Kaewpradap	Thailand
14:15-14:30	An experimental study of a starting plume rising from a mountain (ASV14-HC-11)	X. Y. Wang, H. Y. Zhai, et al.	China
14:30-14:45	Similarity Approximation for Corner-Rolls in Rayleigh-Benard Convection (ASV14-HC-12)	W. F. Zhou, J. Chen	China
14:45-15:00	Turbulent Heat Transfer in Tubes Fitted with Multi-Channel Twisted Tapes (ASV14-HC-13)	S. Kunlabud, K. Banthumpornand, et al.	Thailand

**Multiphase and Interface Flow (1)**

**No.8 Meeting Room**

**Chair: S. Tolkachev, S. X. Shi**

13:30-13:45	Experimental Study of Breaking Wave Impinging and Overtopping on a Vertical Seawall (ASV14-MI-01)	Y. T. Wu, H. H. Hwung, et al.	Taiwan
13:45-14:00	Experimental Study on the Motion Characteristics of Bubbles with Different Diameters and the Wake Around Bubbles in Near Wall Gas-liquid Two Phase Flow (ASV14-MI-02)	X. Wang, J. Sun, et al.	China
14:00-14:15	Visualization of Air-water Bubbly Column Flow by Using Array Ultrasonic Velocity Profiler (ASV14-MI-03)	B. Munkhbat, A. Hamdani, et al.	Japan
14:15-14:30	High-Speed Visualisation and PIV Study of Ejector-Generated Bubble Swarm Characteristics (ASV14-MI-04)	A. M. Aliyu, H. D. Seo, et al.	Korea
14:30-14:45	Visualizations of Fine Heavy Particles Falling in Turbulent Water (ASV14-MI-05)	K. M. Lam, Y. Li	Hong Kong
14:45-15:00	Tracking of swirl bubbles using high speed cameras (ASV14-MI-06)	A. R. Rigit, A. Demong, et al.	Malaysia

**Session V 15:15-16:45PM, May 24<sup>th</sup>**

**Optical Measurement Method (3)**

**No.1 Lecture Hall**

**Chair: S. Song, Z. B. Luo**

15:15-15:30	Single-Shot Lifetime-Based PSP and TSP Measurements on Turbocharger Compressor Blades with High Rotation Rate (ASV14-OM-14)	L. R. Jiao, D. Peng, et al.	China
15:30-15:45	Measurement of Mach number distribution of hypersonic flow using visualization of light path (ASV14-OM-15)	T. J. Wang, X. T. Shi	China
15:45-16:00	Measurements of Pressure Distributions on Root-fixed Flapping Wing Using Pressure Sensitive Paint (ASV14-OM-16)	Y. L. Yu, D. Peng, et al.	China
16:00-16:15	Measurement of Turbulent Boundary Layer Flow with Single-camera Tomographic PIV (ASV14-OM-17)	J. B. Zhang, Q. Gao, et al.	China

16:15-16:30	Fast PSP Measurements on a Flat Plate in the Wake of Straight and Step Cylinders ( <b>ASV14-OM-18</b> )	<b>D. Peng</b> , Y. Z. Liu, et al.	China
16:30-16:45	Measurement of Spanwise Vortices in Open Channel Flow Using Time-resolved and Wide Field-of-view PIV ( <b>ASV14-OM-19</b> )	<b>Q. G Chen</b> , Q. Zhong	China

**Heat Transfer, Convection and**

**No.2 Lecture Hall**

**Chair: L. Cheng, N. Gao**

**Reactive Flow (3)**

15:15-15:30	Effect of Swirling Flow on Turbulent Field Characteristics in An Isothermal Swirling Fluidized-Bed ( <b>ASV14-HC-14</b> )	<b>P. Promthaisong</b> , K. Banthumporn, et al.	Thailand
15:30-15:45	An experimental investigation on the impact and icing processes of a water droplet on curved cold surfaces ( <b>ASV14-HC-15</b> )	<b>Z. Y. Jin</b> , H. H. Zhang	China
15:45-16:00	Axisymmetric thermocapillary interaction of two drops ( <b>ASV14-HC-16</b> )	<b>S. T. Zhang</b> , L. Duan	China
16:00-16:15	Experimental Investigation of Thermo-Hydraulic Characteristics in a Heat Exchanger Tube with Inclined Circular-Ring Turbulators ( <b>ASV14-HC-17</b> )	<b>K. Ruengpayungsak</b> , K. Banthumporn, et al.	Thailand
16:15-16:30	Flow characteristics of 2D turbulent convection for high and very high Rayleigh numbers ( <b>ASV14-HC-18</b> )	<b>J. H. Luo</b> , Z. Y. Gao, et al.	China
16:30-16:45	Effect of Centrally Hollow Narrow Twisted Tape Inserts on Heat Transfer and Flow Behaviors ( <b>ASV14-HC-19</b> )	<b>A. Saysroy</b> , K. Banthumporn, et al.	Thailand

## Session Program (May 25<sup>th</sup>)

### Session VI 10:30-12:15AM, May 25<sup>th</sup>

<b>Flow Control (1)</b>		<b>No.1 Lecture Hall</b>	<b>Chair: K. Thangaveloo, K. M. Lam</b>	
10:30-10:45	Optical Flow Method Research and Application in the Measurement of Velocity Field and Skin Friction <b>(ASV14-FC-01)</b>		<b>H. W. Wang</b> , L. F Wei, et al.	China
10:45-11:00	Study on velocity fields of run-up motion of solitary waves over very steep slope <b>(ASV14-FC-02)</b>		<b>C. Lin</b> , W. Y. Wong, et al.	Taiwan
11:00-11:15	Heat transfer and flow measurements for periodically perturbed turbulent flow over a backward facing step <b>(ASV14-FC-03)</b>		<b>Z. Y. Li</b> , N. Gao, et al.	China
11:15-11:30	Shock wave control by DC arc discharge plasma in Mach 2.5 flow <b>(ASV14-FC-04)</b>		<b>F. Liu</b> , H. Yan, et al.	China
11:30-11:45	Suppression of Horseshoe Vortex by a Liner Strake <b>(ASV14-FC-05)</b>		<b>J. H. Chen</b> , J. P. Lee, et al.	Taiwan
11:45-12:00	Experimental investigation on the vectoring characteristic of dual synthetic jets actuator with electric signal control <b>(ASV14-FC-06)</b>		<b>S. K. Yang</b> , Z. B. Luo, et al.	China
12:00-12:15	Nose Micro-Blowing for Asymmetric Vortices Control on Blunt-Nose Slender Body at High Angle of Attack <b>(ASV14-FC-07)</b>		<b>L. Wang</b> , Y. K. Wang, et al.	China
<b>Compressible Flows and Gas Dynamics (1)</b>		<b>No.2 Lecture Hall</b>	<b>Chair: A. Rinoshika, X. S. Meng</b>	
10:30-10:45	The Research on Compression Corners Flow Separation State Visualization in Pulse Combustion Wind Tunnel at M6 <b>(ASV14-CG-01)</b>		<b>Z. F. Wang</b> , H. C. Bai, et al.	China
10:45-11:00	Flow visualization and skin friction measurement based on liquid crystal coatings in hypersonic wind tunnel on dealt wing <b>(ASV14-CG-02)</b>		<b>J. J. Pan</b> , X. Chen, et al.	China
11:00-11:15	Glow discharge visualization of shock wave in hypersonic gun tunnel <b>(ASV14-CG-03)</b>		<b>X. G. Sha</b> , M. L. Yuan, et al.	China
11:15-11:30	Study on the characteristics of interaction flowfields induced by supersonic jet on a revolution body <b>(ASV14-CG-04)</b>		<b>S. J. Luo</b> , Z.Y. Ni, et al.	China
11:30-11:45	Visualization of Hypersonic Flow by Double-Colour Oil Flow <b>(ASV14-CG-05)</b>		<b>N. Cao</b> , S. X. Li, et al.	China
11:45-12:00	Large-scale automatic schlieren system for hypersonic wind tunnel <b>(ASV14-CG-06)</b>		<b>L. Li</b> , K. Wang, et al.	China
12:00-12:15	Experimental investigation on the cylindrical converging shock reflection over a curved wedge <b>(ASV14-CG-07)</b>		<b>W. He</b> , T. Si, et al.	China

**Multiphase and Interface Flow (2)      No.8 Meeting Room      Chair: S. Eiamsa-ard, C. Nuntadusit**

10:30-10:45	Fluid and Species Dynamics of an Evaporating Multicomponent Droplet on Chemical Patterned Surfaces (ASV14-MI-07)	X. Cai, M. H. He, et al.	Hong Kong
10:45-11:00	Numerical Simulation of Jet Issuing Diagonally Upward into Density-Stratified Fluid in Cylindrical Tank (ASV14-MI-08)	T. Degawa, I. Aozasa, et al.	Japan
11:00-11:15	Experimental and Numerical Visualization of Two-Phase Pipe Flow (ASV14-MI-09)	Y. T. Wu, J. H. Yu, et al.	China
11:15-11:30	Analysis of Choked Two-Phase Flows of Gas and Particle in a C-D Nozzle (ASV14-MI-10)	G. Zhang, Y. Z. Jin, et al.	Korea
11:30-11:45	Mass Transfer Phenomenon behind an Orifice in Two-Phase Flow (ASV14-MI-11)	T. Yamagata, M. Komatsu, et al.	Japan
11:45-12:00	Maintaining sustainable air layer on the underwater superhydrophobic surface to reduce frictional drag (ASV14-MI-12)	J. Wen, H. B. Hu, et al.	China
12:00-12:15	On the interaction of planar shock wave with 'V' shaped interface (ASV14-MI-13)	P. Dong, Z. G. Zhai, et al.	China

**Session VII 13:30-15:45PM, May 25<sup>th</sup>**

**Flow Control (2)      No.1 Lecture Hall      Chair: H. H. Qiu, H. Guo**

13:30-13:45	Application of Hybrid Grid Method in Numerical Investigation of Interaction Characteristic Induced by Lateral Jet (ASV14-FC-08)	S. Liu	China
13:45-14:00	Effects of a dual-disk flow controller on flow characteristics of swirling double-concentric jets (ASV14-FC-09)	C. M. Hsu, R. F. Huang, et al.	Taiwan
14:00-14:15	Reconstruction of the three-dimensional flow structures in a planar offset attaching jet based on LSE-POD complementary approach (ASV14-FC-10)	Y. Xia, N Gao, et al.	China
14:15-14:30	Investigation on serial two-electrode plasma synthetic jet actuator array (ASV14-FC-11)	Y. Zhou, Z. X. Xia, et al.	China
14:30-14:45	The experiment research of micro riblets drag reduction mechanism of laminar airfoil (ASV14-FC-12)	Z. Huang, X. H. Li, et al.	China
14:45-15:00	Control the motion of sessile drop on a plate with horizontal vibration (ASV14-FC-13)	C. H. Wang, P. H. Tsai, et al.	Taiwan
15:00-15:15	On the Separated Flow Using Nanosecond DBD Plasma Actuators at Low Reynolds Number (ASV14-FC-14)	Z. J. Zhao, Y. D. Cui, et al.	China
15:15-15:30	Investigation on the turbulent characteristics of the jet induced by a dielectric barrier discharge plasma actuator (ASV14-FC-15)	X. Zhang, H. X. Li, et al.	China
15:30-15:45	Influence of various inclined holes on flow structures around a finite wall-mounted cylinder (ASV14-FC-16)	H. Rinoshika, S. Fujimoto, et al.	Japan

**Compressible Flows and Gas Dynamics (2) No.2 Lecture Hall Chair: Q. Dai, T. Si**

13:30-13:45	PIV Measurements of Sonic and Supersonic Jet Flows (ASV14-CG-08)	J. H. Lee, G. Zhang, et al.	Korea
13:45-14:00	The susceptible measurement of low Pitot pressure in shock tunnel (ASV14-CG-09)	J. M. Shen, X. Chen, et al.	China
14:00-14:15	visualization of flowfield structures induced by rcs jet interaction on a hypersonic vehicle (ASV14-CG-10)	Y. W. Liu, Y. F. Liu, et al.	China
14:15-14:30	Visualization of Separation Induce by 3D wedge in Hypersonic Laminar Flow (ASV14-CG-11)	J. Q. Wang, Z. Chen, et al.	China
14:30-14:45	Experimental and Numerical Investigation of Spray and Mixing of Fuel Jet in Supersonic Crossflow (ASV14-CG-12)	M. B. Sun, P. B. Li, et al.	China
14:45-15:00	Thrust Vector Control Using Co- and Counter-Flows (ASV14-CG-13)	K. X. Wu, R. Y. Deng, et al.	Korea
15:00-15:15	High Temperature Ablation Test of Graphite Rod using a Small Arc-heated plasma testing facility (ASV14-CG-14)	N. Han, H. J. Huang, et al.	China
15:15-15:30	An Experimental Investigation on Supersonic Jets Issuing from Beveled Nozzles (ASV14-CG-15)	J. Wu, H. D. Lim, et al.	China
15:30-15:45	Passive Shock Wave/Boundary Layer Control of Wing at Transonic Speeds (ASV14-CG-16)	L. Zhou, D. H. Chen, et al.	China

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**No.8 Meeting Room Chair: J. H. Chen, F. Xu**

**Wind Engineering Flow (1)**

13:30-13:45	Drag-reducing flow structures around the bio-inspired cab-roof fairing on a heavy vehicle model (ASV14-IE-01)	J. J. Kim, S. J. Lee, et al.	Korea
13:45-14:00	Investigation of Coolant Flow Characteristics in a Diesel Engine using Particle Image Velocimetry Technology (ASV14-IE-02)	Z. Y. Zhang, H. W. Ma, et al.	China
14:00-14:15	The effect of textile roughness on the critical transition of flow over a circular cylinder (ASV14-IE-03)	J. J. Miao, Y. H. Lai, et al.	Taiwan
14:15-14:30	Visualization Study on the Effects of the Cascade Parameters on the Tip Leakage Flow in a Compressor Cascade (ASV14-IE-04)	L. X. Wang, H. W. Ma, et al.	China
14:30-14:45	Quantitative visualization of flows behind finite rigid and flexible cylinders (ASV14-IE-05)	S. Y. Jung	Korea
14:45-15:00	Effect of Oncoming Flow Turbulence on the Kinetic Energy Transport in the Flow around a Model Wind Turbine (ASV14-IE-06)	W. Tian, Hui Hu, et al.	China
15:00-15:15	Effect of Rotation on 3D Topology of Energetic Flow Structures During Stall Delay (ASV14-IE-07)	Y. H. Wu	Singapore
15:15-15:30	Axial flow-induced vibration of a flexible cylinder under different turbulence intensities (ASV14-IE-08)	C. W. Wong, Peng Wang, et al.	China
15:30-15:45	Trailing edge extension: A means of improving the performance of an airfoil (ASV14-IE-09)	W. Asvapoositkul, Viravat U-rasanit, et al.	Thailand

**Session VIII 16:00-17:30PM, May 25<sup>th</sup>**

<b>Flow Control (3)</b>		<b>No.1 Lecture Hall</b>	<b>Chair: C. H. Wang, Y. H. Wu</b>	
16:00-16:15	Experimental investigations on a non-slender delta wing in large amplitude pitching motions ( <b>ASV14-FC-17</b> )	<b>J. X. Liao</b> , T. X. Hu, et al.		China
16:15-16:30	Aerodynamic Improvement of a Delta Wing in Combination with Leading Edge Flaps ( <b>ASV14-FC-18</b> )	<b>T. Ishide</b> , Mao Itazawa		Japan
16:30-16:45	Laminar separation control at low Reynolds numbers using different plasma actuation ( <b>ASV14-FC-19</b> )	H. Y. Hu, <b>X. S. Meng</b> , et al.		China
16:45-17:00	Vortex modes behind a cylinder with an increased stream-wise oscillating frequency ( <b>ASV14-FC-20</b> )	<b>Z. W. Hu</b> , J. S. Liu, et al.		China
17:00-17:15	Dynamic Characteristics of Asymmetric Vortex Flow over a Conical Body under AC-DBD Plasma Actuation ( <b>ASV14-FC-21</b> )	Y. X. Long, <b>X. S. Meng</b> , et al.		China
17:15-17:30	Experimental studies of vortex-induced vibration of optimized pivoted cylinders ( <b>ASV14-FC-22</b> )	<b>Y. D. Liu</b> , Q. Gao, et al.		China

<b>Compressible Flows and Gas Dynamics (3)</b>		<b>No.2 Lecture Hall</b>	<b>Chair: V. I. Borodulin, W. Y. Chen</b>	
16:00-16:15	A Study on Characteristics of Shock Train inside a Shock Tube ( <b>ASV14-CG-17</b> )	<b>D. W. Kim</b> , H. D. Kim		Korea
16:15-16:30	On the Interaction of Planar Incident Shock with a Heavy Elliptic Gas Cylinder ( <b>ASV14-CG-18</b> )	<b>W. B. Zhang</b> , L. Y. Zou		China
16:30-16:45	Active Control of a Turbulent Boundary Layer by Double Piezoelectric Vibrators ( <b>ASV14-CG-19</b> )	<b>X. T. Cui</b> , J. X. Bai, et al.		China
16:45-17:00	Numerical Simulation of Boltzmann Equation for Gas Flows with Dynamic Discrete Ordinate Method ( <b>ASV14-CG-20</b> )	<b>C. T. Hsu</b> , K. K. F. Sin		Hong Kong
17:00-17:15	Numerical Study on Flow Separation of Shock Train in a Planar Rectangular Duct ( <b>ASV14-CG-21</b> )	<b>P. Chen</b> , S. X. Li		China
17:15-17:30	Interaction of cylindrically converging shock with a double-layer interface ( <b>ASV14-CG-22</b> )	<b>F. Lei</b> , J. C. Ding, et al.		China