

ISPIV2025 Program

Updated on June 17, 2025

Day 0 - Wednesday Afternoon, 25 June 2025				
15:00 18:00	Registration Reception Hall, International Exchange Bldg			
15:00 19:00	Welcome Reception Reception Hall, International Exchange Bldg			
Day 1 - Thursday Morning I, 26 June 2025				
8:30	Venue opens			
8:50	Opening and Welcoming Address Room 417, Central Bldg			
9:00	Plenary Lecture I Room 417, Central Bldg Chair: Fulvio Scarano Enabling Techniques for Volumetric Velocity Measurements: from Self-calibration, Iterative Particle Reconstruction to Object Registration Bernhard Wieneke (LaVision GmbH)			
9:45	Break			
	Particle Tracking Velocimetry I Room 417, Central Bldg Chair: Andreas Schroeder	Uncertainty Quantification Room 402, Central Bldg Chair: Koji Okamoto	Aerodynamics I Room 409, Central Bldg Chair: Giampaolo Romano	Boundary Layers I Room 405, Central Bldg Chair: Ellen Longmire
9:50	Accurate determination of acceleration statistics in a turbulent jet using locally adapted TrackFit Tom Buchwald , Daniel Schanz, Andreas Schröder ⁽¹⁰⁶¹⁾	Estimation of particle number and detection error from simple peak detection for PTV and LPT. Lionel Thomas , Benoît Tremblais, Bertrand Mercier, Laurent David ⁽¹¹⁶⁸⁾	An experimental investigation on a Darrieus turbine using time-resolved PIV Giorgio Moscato , Navid Aryan, Domenico Corapi, Fabio Di Felice, Giovanni Paolo Romano ⁽¹⁰³⁹⁾	Interaction between a spanwise cylinder wake and turbulent boundary layer Raphael Ribeiro , Ellen K Longmire , Melissa A Green ⁽¹⁰⁶⁷⁾
10:10	Enhanced PeakCNN: Peak detection with partial pre-knowledge from IPR Philipp Godbersen , Daniel Schanz, Andreas Schröder ⁽¹¹⁷²⁾	Convergence of Cyclic and Stochastic Turbulence Measurements using PIV of an Electric Propeller in Hover Peter Sorensen, Keerthan Ganeshan, Daniel Cuppoletti ⁽¹¹²⁷⁾	Studying the Interaction Between Vortex Dynamics and Sensor Optimization Placement in Surface Pressure Mapping of the Ahmed Body Ayoub Jebli , Taku Nonomura, Takayuki Nagata ⁽¹¹²⁵⁾	Flow analysis of delta winglet vortex generators by Stereoscopic Particle Image Velocimetry Gilles De Baets , Yasaman Parvizifard, András Szabó, Péter Nagy, György Paál, Ofelia Jianu, Maarten Vanierschot ⁽¹¹⁴⁶⁾
10:30		Flow reconstruction with uncertainty quantification from PIV based on Bayesian physics-informed neural networks Hailong Liu , Rui Deng, Zhi Wang, Shipeng Wang, Shengze Cai ⁽¹⁰¹⁷⁾	Modal analysis of the turbulent wake impact in transonic shock buffet mode Christopher Julian Schauerte , Anne-Marie Schreyer ⁽¹¹⁴¹⁾	Experimental Study on the Influence of Finlet Treatments on the Three-Dimensional Turbulent Structures and Wall-Pressure Fluctuations Zhihang Pan , Qingqing Ye ⁽¹⁰⁸¹⁾
10:50	Break (Drinks provided in Rooms 403, 416, and 418, Central Bldg)			

Day 1 - Thursday Morning II, 26 June 2025

	Particle Tracking Velocimetry II Room 417, Central Bldg Chair: Daniel Schanz	Data Assimilation I Room 402, Central Bldg Chair: Xiaofeng Liu	Aerodynamics II Room 409, Central Bldg Chair: Steven Beresh	Boundary Layers II Room 405, Central Bldg Chair: Phillipe Bardet
11:20	XYclopZ: a Single-Camera 4D Lagrangian Particle Tracking (4D-LPT) method for High-Speed flows measurements Andres Alejandro Aguirre Pablo , Abdullah A Alhareth, Sigurdur T Thoroddsen ⁽¹¹¹³⁾	Omnidirectional-Integration enabled pressure Dirichlet boundary conditions for adjoint-based 3D data assimilation Mohamed Abassi, Qi Wang, Xiaofeng Liu ⁽¹¹³⁴⁾	Velocimetry of Expansion-Compression Geometries in High-Speed Flows Steven Beresh , William Swain, J Clark Pehrson, Anshuman Pandey, Douglas Carter ⁽¹⁰⁰⁵⁾	The influence of hairpin packets on drag reduction in turbulent boundary layer at low Reynolds number Zichun Zhang, Yufei Wang, Xiaoqi Cheng, Guanghao Chen , Nan Jiang ⁽¹⁰²⁷⁾
11:40	Particle transportations in deep water with wind-induced turbulence Wagih Abu Rowin , Yu Xia, Aman Kidanemariam, Jason Monty ⁽¹⁰³¹⁾	Lift coefficient of a turbo-sail airfoil measured by PIV-based pressure field computations Yuichi Murai , Yimo Wang, Hyun Jin Park, Yuji Tasaka ⁽¹⁰⁸⁹⁾	Experimental study on wave structures and their interaction with the shear layer in a transonic jet Xintao Lu , Qi Gao, Wenxuan She, Yuhu Qu, Hang Zhao, Tong Jia, Yuan Xiong ⁽¹⁰⁹⁵⁾	On the spatial and temporal development of reverse flow- and high wall-shear stress events in ZPG-TBL Andreas Schröder , Daniel Schanz, Reinhard Geisler, Christina Voss, Hyungmin Shin, Philipp Godbersen, Janos Agocs, Abhijna Simhan ⁽¹¹⁷⁰⁾
12:00	Quantitative characterization and dynamic evolution of 3D vortex rings using time-resolved 3D velocity field measurements Yukun Han , Jinho Oh, Chong Pan, Kyung Chun Kim ⁽¹⁰⁹¹⁾	Assimilation of temperature and pressure from Lagrangian velocities in turbulent Rayleigh-Bénard convection Robin Karl Barta , Claus Wagner, Michael Mommert, Christian Bauer, Marie Christine Volk ⁽¹¹⁰⁶⁾	Characterization of the Transonic Flow in a Turbine Cascade using High-speed PIV Michael Schroll, Joachim Klinner, Anna Petersen, Christian Willert , Robin Brakmann ⁽¹¹⁷⁷⁾	Holographic PIV Measurement of the 3D Flow around a Rough-ness Element in the Inner Part of a Rough-Wall Turbulent Boundary Layer [Remote] Deepan Sharma , Joseph Katz ⁽¹¹¹⁴⁾
12:20	Volumetric investigation of geometry-induced separation of a turbulent boundary layer Daniel Schanz , Reinhard Geisler, Jonathan Lemarechal, Andrea De Vincenzo, Tobias Knopp, Andreas Schröder ⁽¹¹⁶⁷⁾		Flow development over a low-Reynolds propeller in accelerating conditions Manuel Ratz , Christophe Schram, Andrea Sciacchitano, Miguel Alfonso Mendez ⁽¹⁰⁵⁴⁾	Time-resolved 3D particle tracking velocimetry with a single camera in the viscous layer and buffer region of a zero-pressure-gradient turbulent boundary layer Mark Yamakaitis , Alex Pigeon, Robert Ehrmann, Colin Parker, Jason Anderson, Philippe Bardet ⁽¹¹⁸⁹⁾
12:40	Lunch (Boxed lunch provided on 2nd Floor, Arts Bldg)			

Day 1 - Thursday Afternoon I, 26 June 2025

	Particle Tracking Velocimetry III Room 417, Central Bldg Chair: David Rival	Theory and Algorithms I Room 402, Central Bldg Chair: Bertrand Lecordier	Application I Room 409, Central Bldg Chair: Andrea Sciacchitano	Boundary Layers III Room 405, Central Bldg Chair: Hiroki Nagai
13:50	Stereo-matching using time information for 3D-PTV flow measurements Ron Shnapp, Benny Vradman, Manikandan Ragunathan ⁽¹¹¹⁸⁾	Towards dissipation estimation from single-pixel velocity correlations Sven Scharnowski, Gosse Oldenziel, Jerry Westerweel ⁽¹⁰⁷⁵⁾	On-site 3D LPT for Automotive Underbody Aerodynamics Coen Holland, Adrian Grille Guerra, Andrea Sciacchitano ⁽¹¹⁰³⁾	Observation of boundary-layer transition on a waverider by means of Particle Image Velocimetry in a shock tunnel Simon Bagy, Christian Rey, Berthold Sauerwein, Rémy Kempf, Friedrich Leopold ⁽¹¹⁹⁷⁾
14:10	Particle Characterisation for Defocusing Particle Tracking Velocimetry at Elevated Temperatures and Pressures Heinrich Lionel Lange, Fabian Lorig, Tobias Klein, Robin Leister, Michael H. Rausch, Andreas Paul Fröba, Jochen Kriegseis ⁽¹¹⁵⁵⁾	A new sub-pixel approach based on multi-correlation maps for velocity vector evaluation in PIV algorithms Corine Lacour, Bertrand Lecordier ⁽¹¹⁴⁴⁾	Investigation of Flow Characteristics in TPMS Structures Using PIV Jong Bae Lee, Sung Yong Jung ⁽¹¹³⁹⁾	Analysis of Intermittent Laminar-to-Turbulent Transition from PIV Measurements: Application to Airfoil Boundary Layers in High Free-Stream Turbulence Connor Toppings, Serhiy Yarusevych ⁽¹¹²³⁾
14:30	A Volumetric Particle Tracking Velocimetry Technique Based on a Single Color Camera With Tri-chromatic Mask Yiqun Liu, Junfei Ding, Xiaoyi Liang, Yong Zhang, Haiping Tain ⁽¹⁰³⁰⁾	Submicron-resolution single-pixel ensemble PIV for turbulent flow measurements in the near wall region Tse Fu Chang, Kim Boon Lua ⁽¹¹¹⁰⁾	Camera Calibration Using Fiducial Markers: A Novel Tool for Automated PIV Systems Andre Michael Brunn, Osmond Tedjasukmana, Frank Michaux, Chris Willert, Stephan Kallweit ⁽¹¹³⁵⁾	Investigation of Spanwise Velocity Variations along Wing Surface using Curved Laser Sheet PIV Ritsuki Mise, Tsubasa Ikami, Hiroki Nagai ⁽¹¹²⁴⁾
14:50	Single-shot measurement of 3D morphology and 3D position of microparticles using holographic PTV and deep learning Jihwan Kim, Sang Joon Lee ⁽¹¹³³⁾	A Projection Concentration Maximization Method for Event-based Imaging Velocimetry Jia Ai, Zuobing Chen, Wenbin Ning, Yong Lee ⁽¹⁰⁸⁴⁾	Experimental Investigation of Secondary Flow Structure of Enclosed Rotating Flow based on 3D Reconstruction using 2D PIV Measurements Tomohiro Ueno, Ren Nakamoto, Ibrahim Abubakar Masud, Katsuaki Shirai ⁽¹⁰⁵²⁾	Internal PIV Measurements of Flows in Ducts with Aggressive Shape Change Vincent Onoja, Roshan Baskaran, Daniel Cuppoletti ⁽¹¹²⁹⁾
15:10		A data-consistent model-driven particle 3D reconstruction method based on KL projection Peng Lei, Hua Yang, Zhou Pin Yin ⁽¹¹¹⁶⁾		Measurement Technique Comparison in a Turbulent Boundary Layer Robin Leister, Patricia Sujar Garrido, Katrin Klingel, Ramis Örlü, Radomir Beslac, Thomas Rockstroh, Jochen Kriegseis, Bettina Frohnappel ⁽¹⁰⁰⁴⁾
15:30	Break (Drinks provided in Rooms 403, 416, and 418, Central Bldg)			

Day 1 - Thursday Afternoon II, 26 June 2025

	Particle Tracking Velocimetry IV Room 417, Central Bldg Chair: Fulvio Scarano	Machine Learning I Room 402, Central Bldg Chair: Christian Cierpka	Aerodynamics III Room 409, Central Bldg Chair: Christian Kähler	Flow Control I Room 405, Central Bldg Chair: Yoshitsugu Naka
16:00	Color 3D-PTV in air flows with HFSB <u>Hyun Jin Park</u> , Adrian Grille Guerra, Fulvio Scarano ⁽¹⁰⁴⁶⁾	Super kernels for optical flow estimation in particle image velocimetry <u>Yuvarajendra Anjaneya Reddy</u> , Joel Wahl, Mikael Sjö Dahl ⁽¹¹⁹⁴⁾	Parametric Study of Sparse Processing PIV for Feedback-based Flow Separation Control on Airfoils <u>Rodrigo Viguera</u> , Ryo Naramura, Yasuo Sasaki, Taku Nonomura ⁽¹¹²⁶⁾	AI-based active flow control of wingtip vortices via synthetic jets <u>Alessandro Scala</u> , <u>Gerardo Paolillo</u> , Carlo Salvatore Greco, Tommaso Astarita, Gennaro Cardone ⁽¹¹⁰⁹⁾
16:20	3D3C rainbow PTV applying to air flow of tornado-like vortex <u>Mao Takeyama</u> , Masaya Ukegawa, Kota Fujiwara, Koji Sassa, Yasuo Hattori ⁽¹¹⁴³⁾	Bidirectional self-correcting optical flow network for tomographic particle image velocity measurement <u>Hua Yang</u> , Xin Li, Zhouping Yin ⁽¹⁰³⁵⁾	Analysis of Ground Linking Phenomena in Wake Vortices after Aircraft Landing <u>Sven Grundmann</u> , Martin Brede, Gustavo Castaneda Fuentes ⁽¹⁰⁵⁰⁾	Scaling analysis of a manipulated round jet using six distributed unsteady minijets <u>Dewei Fan</u> , Yuling Xue, Jianjun Du, Yu Zhou ⁽¹⁰⁶⁵⁾
16:40	Event-based Ensemble Particle Tracking Velocimetry for Efficient Single-pixel Turbulent Statistics <u>Jiajun Cao</u> , Zeng Xin, Lyu Zhen, Zijun Huang, Chuangxin He, Zhaomin Cao, Yingzheng Liu ⁽¹⁰⁶⁸⁾	Event-based particle tracking using artificial neural networks <u>Sebastian Sachs</u> , Steffen Jung, Margret Keuper, Christian Cierpka ⁽¹⁰³⁶⁾	Laminar separation bubble evolution on an airfoil accelerated from rest and decelerated to rest <u>Christian J. Kaehler</u> , Wolfgang Dierl, Serhiy Yarusevych, Rainer Hain ⁽¹⁰⁸⁸⁾	Event-based imaging velocimetry for jet flow control <u>Luca Franceschelli</u> , Enrico Amico, Marco Raiola, Christian Willert, Jacopo Serpieri, Giocchino Cafiero, Stefano Discetti ⁽¹¹⁶⁴⁾
17:00	Glare-point particle tracking over large scales using event-based imaging <u>David E Rival</u> , Robin Leister, Michael Hilfer ⁽¹¹²⁰⁾	Deep learning enhanced particle tri-view image extraction and 3D reconstruction for trichromatic mask PIV <u>Xiaoyi Liang</u> , Junfei Ding, Yong Zhang ⁽¹¹¹⁷⁾	Tip vortex characterisation from LPT measurements <u>Hervé Bonnard</u> , Ludovic Chatellier, Laurent David ⁽¹¹⁶³⁾	FLOW SEPARATION CONTROL OVER CETACEAN-INSPIRED AND BIRD/INSECT WING-INSPIRED AIRFOILS DU 06 W 200 <u>Omid Ali Zargar</u> , Shih-Cheng Hu ⁽¹⁰⁰¹⁾
17:20	A Novel Particle Streak Velocimetry by Fusing Event- and Frame- Based Cameras <u>Xin Zeng</u> , Jiajun Cao, Zhen Lyu, Zijun Huang, Chuangxin He, Zhaomin Cao, Yingzheng Liu ⁽¹⁰²²⁾	Semi-supervised machine learning with overabundant unlabelled samples in data-driven flow estimation <u>Junwei Chen</u> , Marco Raiola, Stefano Discetti ⁽¹⁰⁸⁰⁾	On the interactional effects of rotor blade tip vortices in the wake of μUAVs <u>Giosuè Longobardo</u> , Tommaso Astarita, Fabrizio De Gregorio ⁽¹⁰²⁶⁾	Separation detection based on wall pressure fluctuations in natural and controlled flows around a wing <u>Yoshitsugu Naka</u> , Rion Handa, Shintaro Sato, Rei Sasaki, Naofumi Ohnishi ⁽¹¹⁹⁵⁾
17:40	Three-Dimensional Orientation Tracking of Non-Spherical Inertial Particles Using Event Cameras <u>Young In Park</u> , Hyungmin Park ⁽¹⁰⁴⁷⁾		Flow interactions of a near-wall oscillating cylinder in the wake of another. <u>Guanghao Chen</u> , Mahbub Md. Alam, Nan Jiang ⁽¹⁰¹⁰⁾	PIV measurements of cavitating flow around a hydrofoil <u>Rafat Ivan Ahamed Simanto</u> , Sion Jin, Byoung-Kwon Ahn ⁽¹¹³⁰⁾

Day 2 - Friday Morning I, 27 June 2025

9:00	<p>Plenary Lecture II Room 417, Central Bldg Chair: Ellen Longmire</p> <p>Diving into a Sea of Data: Lagrangian Tracking of Polydispersed Bubbles in Intense Turbulence Rui Ni (Johns Hopkins University)</p>			
9:45	Break			
	<p>Particle Tracking Velocimetry V Room 417, Central Bldg Chair: Bernhard Wieneke</p>	<p>Theory and Algorithms II Room 402, Central Bldg Chair: Pavlos Vlachos</p>	<p>Stereo PIV I Room 409, Central Bldg Chair: Kenny Breuer</p>	<p>Jets, Shear Layers and Wakes I Room 405, Central Bldg Chair: Sigurdur Thoroddsen</p>
9:50	<p>On the accuracy of multi-exposure 3D-PTV Adrian Grille Guerra, Fulvio Scarano, Bernhard Wieneke⁽¹⁰⁶⁹⁾</p>	<p>Multi-Peak Cross-Correlation Particle Image Velocimetry Using Generalized Linear Regression with RBF Kernel Anubhav Dey, Pavlos P Vlachos⁽¹¹⁷⁶⁾</p>	<p>The distribution of pressure pattern around foot and wake flow fields during underwater kick swimming Hirofumi Shimojo, Yusaku Nakazono, Jun Sakakibara, Takaaki Tsunokawa, Yasuo Sengoku, Hideki Takagi⁽¹¹⁸⁴⁾</p>	<p>Conditional Sampling of Vortical Structures in a Turbulent Jet, using Scanning Tomographic PIV Sigurdur T Thoroddsen, Vivek Mugundhan, Tiernan A Casey, Jun Sakakibara⁽¹¹⁵¹⁾</p>
10:10	<p>Detection of low-velocity traces in ME-PTV Fulvio Scarano⁽¹⁰⁷¹⁾</p>	<p>Regression methods for Image-based Probability Estimation of Displacements and its applications to finding Nanoparticle Size Distributions and Noise Induced Error Reduction Anubhav Dey, Pavlos P Vlachos⁽¹¹⁷⁵⁾</p>	<p>Exploring the Potential of the PIV Method: Advancing High-Performance Swimming ~ A Case Study on Human UUS ~ Yusaku Nakazono, Hirofumi Shimojo, Jun Sakakibara, Yasuo Sengoku, Hideki Takagi, Takaaki Tsunokawa⁽¹¹⁸⁷⁾</p>	<p>Laser-Optical Method to Characterize Convective Round Nozzle Systems with a High Level of Heat Transfer Eileen Trampe, Eva Wensing, Dominik Büschgens, Christian Wuppermann⁽¹⁰⁰⁸⁾</p>
10:30	<p>Progress on microscopic single-camera 3D Lagrangian particle tracking Charles Fort, Mark Joseph Yamakaitis, Philippe Matthieu Bardet⁽¹⁰⁵⁹⁾</p>	<p>Qu-PIV: Particle image velocimetry via a quantum algorithm Philipp Pfeffer, Julia Ingelmann, Theo Käufer, Jörg Schumacher, Christian Cierpka⁽¹⁰³⁸⁾</p>	<p>Investigation of Leading-Edge Vortex Dynamics with a Continuously Varying Leading Edge Sweep Using SPIV Travis Bouck, Nandeesh Hiremath⁽¹⁰²⁹⁾</p>	<p>The effect of vortex structure near the turbulent/non-turbulent interface in synthetic jet flow Congyi Xu, Jinjun Wang⁽¹⁰¹²⁾</p>
10:50	Break (Drinks provided in Rooms 403, 416, and 418, Central Bldg)			

Day 2 - Friday Morning II, 27 June 2025

	Particle Tracking Velocimetry VI Room 417, Central Bldg Chair: Benjamin Leclaire	Volumetric Techniques I Room 402, Central Bldg Chair: Massimiliano Rossi	Flow Control II Room 409, Central Bldg Chair: Yuichi Murai	Jets, Shear Layers and Wakes II Room 405, Central Bldg Chair: Tommaso Astarita
11:20	Particle Pairing through Vector Field Consensus for 3D Particle Tracking at High Seeding Densities Jean Le Bris , Adam Cheminet, Philippe Cornic, Benjamin Leclaire, Frederic Champagnat ⁽¹⁰²⁵⁾	First Defocus Particle Tracking Challenge: Chip-in-the-Box and multi-flavor datasets Massimiliano Rossi , Sebastian Sachs, Christian Cierpka ⁽¹¹⁴⁷⁾	PERFORMANCE OF AIR CURTAIN APPLIED IN FRONT OPENING UNIFIED POD (FOUP) Omid Ali Zargar, Shih-Cheng Hu ⁽¹¹⁹⁹⁾	PIV measurements through straight shocks with different tracers in a supersonic over-expanded jet Benjamin Blaisot , Sylvain Petit, Renaud Jalain ⁽¹¹⁰²⁾
11:40	Towards moving objects within the Object-aware Lagrangian particle tracking framework Thomas Rockstroh , Robert Brinkema ⁽¹⁰⁵⁷⁾	Object reconstruction in a moving experiment using multiple views Ali Rahimi Khojasteh , Edwin Overmars, Willem Van De Water, Jerry Westerweel ⁽¹¹⁰⁸⁾	Interaction between microbubbles and turbulent structures in a pipe flow Xianfeng Wu , Yasuhisa Hamana, Yoshiyuki Tsuji ⁽¹⁰⁴⁰⁾	Study of Puff Formation while Laminar to Turbulent Supercritical Transition of Circular Cross-Section Fully Developed Free Jet Pawan Kumar Karn , Sandeep Saha, Debopam Das ⁽¹¹³⁷⁾
12:00	Double refractive particle tracking and sizing Joerg Koenig , Christian Cierpka ⁽¹⁰⁵³⁾	DefocusTrackerAI: Adaptive and Automatic Detection of Defocused Particle Images Gonçalo Coutinho , Ana Moita, António L.N. Moreira, Massimiliano Rossi ⁽¹⁰¹⁹⁾	Volumetric measurements above a DBD PA array for oscillatory forcing in a turbulent channel flow Saskia Pasch, Theodoros Michelis, Robin Leister, Patricia Suja Garrido, Jochen Kriegseis ⁽¹¹⁵²⁾	Free flow field of a stabilized precessing jet Cristina D'Angelo , Gerardo Paolillo, Carlo Salvatore Greco, Gennaro Cardone, Tommaso Astarita ⁽¹⁰⁹⁸⁾
12:20	A Deep Learning Framework with Graph Optimal Transport for Particle Tracking Velocimetry Zhi Wang , Zixuan Wang, Chao Xu, Shengze Cai ⁽¹⁰⁷⁴⁾			
12:40	Lunch (Boxed lunch provided on 2nd Floor, Arts Bldg)			

Day 2 - Friday Afternoon I, 27 June 2025

13:50	<p>Ronald J. Adrian Award Lecture Room 417, Central Bldg Chair: Jun Sakakibara</p> <p>Development of 3-D PTV for Marangoni Experiment in Space (MEIS) Koichi Nishino (Yokohama National University)</p>			
14:35	Group photo			
14:45	Break			
	<p>Particle Tracking Velocimetry VII Room 417, Central Bldg Chair: Rui Ni</p>	<p>Theory and Algorithms III Room 402, Central Bldg Chair: Koichi Hishida</p>	<p>Flow Instabilities I Room 409, Central Bldg Chair: Jerry Westerweel</p>	<p>Jets, Shear Layers and Wakes III Room 405, Central Bldg Chair: Masaki Fuchiwaki</p>
14:50	<p>Characterisation of the Self-Similar Adverse Pressure Gradient Turbulent Boundary Layer Near Separation Using High-Spatial-Resolution PIV Ziqi Chen, Bihai Sun, Alireza Heidarian, Julio Soria⁽¹⁰⁶³⁾</p>	<p>Robust estimation of particle image density up to high values through probabilistic modelling Maximilien Hebey, Benjamin Leclaire, Frédéric Champagnat⁽¹⁰⁵⁶⁾</p>	<p>PIV and laser interferometry reveal evaporation mechanism of a binary sessile droplet Minhyeok Kuk, Hyungsoo Kim⁽¹⁰¹⁴⁾</p>	<p>The Evolution of Jet Characteristics in the Near-field Tip Leakage Vortex of NACA0012 Hydrofoil Yuhu Qu, Wenxuan She, Qi Gao⁽¹⁰⁹⁴⁾</p>
15:10	<p>Tomographic particle tracking velocimetry measurements in the tip region of a ducted marine propeller Ayush Saraswat, Chintan Panigrahi, Kirtivardhan Singh, Joseph Katz⁽¹⁰⁸³⁾</p>	<p>Color Crosstalk in Dual Color PIV Mitanjali Mitanjali, Jun Chen, Vaibhav Arghode⁽¹⁰³⁴⁾</p>	<p>Three-Dimensional Flow-Field Measurements of Vapor-Driven Solutal Marangoni Flows in a Droplet Using Astigmatic Particle Tracking Velocimetry Julius Mauch, Jochen Kriegseis, Hyungsoo Kim⁽¹⁰⁰⁷⁾</p>	<p>Time-resolved flow field reconstruction from wall heat-transfer measurements in impinging sweeping jets Victor Duro, Marco Raiola, Rodrigo Castellanos, Carlos Sanmiquel Vila⁽¹¹⁷⁸⁾</p>
15:30			<p>Vortex Dynamics in Instationary Rotating Flow Lyke E. Van Dalen, Janbert Flor, Jerry Westerweel⁽¹⁰⁶²⁾</p>	<p>Vortex Structure Formed by an Interaction between an Inclined Sweeping Jet and a Main Flow Masaki Fuchiwaki, Surya Raghu⁽¹¹⁹⁰⁾</p>
15:50	Break (Drinks provided in Rooms 403, 416, and 418, Central Bldg)			

Day 2 - Friday Afternoon II, 27 June 2025

	Data Assimilation II Room 417, Central Bldg Chair: Zhao Pan	Data Post-Processing Room 402, Central Bldg Chair: Louis Cattafesta	Multiphase Flows Room 409, Central Bldg Chair: Kyung Chun Kim	Jets, Shear Layers and Wakes IV Room 405, Central Bldg Chair: Hitoshi Ishikawa
16:20	An AOT algorithm based Data Assimilation Method for Flows Reconstruction from Time-Resolved 3D Lagrangian Particle Tracking Data Lanyu Li, <u>Zhao Pan</u> ⁽¹¹⁸²⁾	Spectral characterisation of time-resolved PIV processing methods <u>Peter Manovski</u> , Wagih Abu Rowin, Matteo Giacobello, Charitha De Silva, Nicholas Hutchins, Ivan Marusic ⁽¹⁰⁹⁹⁾	Identification of bubble size distribution for cloud cavitation over twisted hydrofoil using high-speed imaging <u>Wenbiao Huang</u> , Yuwei Wang, Hao Zhang, Lianghao Xu, Guoping Zhang, Qingqing Ye ⁽¹⁰⁸⁷⁾	Vibration behavior of a flexible membrane wing in a streamwise accelerating gust <u>Xi He</u> , Siyuan Feng, Qinfeng Guo, Jinjun Wang, Chong Pan ⁽¹¹⁹⁸⁾
16:40	Application of Eulerian vorticity time-marching method to FlowFit3 <u>Young Jin Jeon</u> ⁽¹¹¹²⁾	Frequency Filtered Decompositions; -A unifying approach to various Modal Analyses Bo Beltoft Watz, <u>David Hess</u> , Gökhan F Ergin, Pietro Sperotto ⁽¹⁰⁰⁹⁾	Interaction between the turbulent coherent structures and micro bubbles for cloud cavitation <u>Wenbiao Huang</u> , Qingqing Ye ⁽¹⁰⁸⁶⁾	Vortex Behaviors Formed by Effective Three-Dimensional Elastic Deformation of Butterfly Wings <u>Sei Haishi</u> , Masaki Fuchiwaki ⁽¹¹⁶²⁾
17:00	Robust Flow Field Reconstruction Using PINN for 3D Lagrangian Particle Tracking <u>Hyungmin Shin</u> , Andreas Schröder ⁽¹¹⁴²⁾	Estimation of Velocity Gradient and Hessian Tensors from Particle Tracking Velocimetry <u>Yang Zhang</u> , Louis Cattafesta, Peter Schmid ⁽¹¹¹⁵⁾	Inertial Sphere Trajectories in Pipe Expansion using Refractive-Index-Matched Tomographic PIV <u>Jibu Tom Jose</u> , Gal Friedmann, Omri Ram ⁽¹⁰²¹⁾	Behavior of Hairpin Vortex in the Wake of Axisymmetric Bodies Kanta Inoue, Shi Hashimoto, Yu Nishio, <u>Hitoshi Ishikawa</u> ⁽¹⁰⁷⁸⁾
17:20	Neural-Implicit Particle Advection for Flow Reconstruction from Lagrangian Tracks Ke Zhou, Rui Tang, Guanguan Ke, <u>Samuel Jacobi Grauer</u> ⁽¹²⁰²⁾	Meshless Galerkin modelling for time super-sampling of particle-based velocimetry <u>Qihong Lorena Li Hu</u> , Iacopo Tirelli, Miguel Alfonso Mendez, Andrea Ianiro, Stefano Discetti ⁽¹¹⁵⁰⁾	Quantitative visualization of 3-D bubble morphology and surrounding flow field using 4-D PTV <u>Jinho Oh</u> , Kyung Chun Kim ⁽¹⁰³²⁾	Measurement of turbulent wake flows near an unsteady free surface using defocusing PIV <u>Cong Wang</u> , Chukwudum Eluchie, David Butler, David Jeon, Morteza Gharib ⁽¹¹⁹³⁾
17:40	Fast and accurate reconstruction of pressure from PTV measurements using smooth particle hydrodynamics <u>Meet Patel</u> , Harish Ganesh, Jesse Capecealatro ⁽¹¹⁶⁹⁾	Data-Driven Approach for Combining Multiple Fields of View in Unsteady PIV Data <u>Haruka Kurahashi</u> , Tsubasa Ikami, Hiroki Nagai ⁽¹¹⁵⁹⁾		Measuring the full instantaneous dissipation rate <u>Clara Marika Velte</u> , Martin Schiødt, Haim Abitan ⁽¹⁰⁶⁶⁾
18:30	Banquet bus departs from the parking lot near the North Gate. See "Bus to Banquet" on the Venue Map.			
19:00 21:00	Banquet (Meiji Kinenkan)			

Day 3 - Saturday Morning I, 28 June 2025

9:00	<p>Plenary Lecture III Room 417, Central Bldg Chair: Masahiro Motosuke</p> <p>Active Turbulence in Bacterial Suspensions: Emergent Vortex Lattice, Reversals and Chirality Daiki Nishiguchi (Institute of Science Tokyo)</p>			
9:45	Break			
	<p>Biomedical Applications Room 417, Central Bldg Chair: Kenji Kikuchi</p>	<p>Combustion Room 402, Central Bldg Chair: Nao Ninomiya</p>	<p>Stereo PIV II Room 409, Central Bldg Chair: Joseph Katz</p>	<p>Micro-/Nanofluidics Room 405, Central Bldg Chair: Sang Joon Lee</p>
9:50	<p>Analyzing Intestinal Flow via Nanoparticle Tracking to Evaluate Mixing Efficiency Jiawei Huang, Kenji Kikuchi, Keiko Numayama-Tsurata, Takuji Ishikawa⁽¹⁰¹⁵⁾</p>	<p>Influence of an active pre-chamber on the flow in a molecularly-controlled combustion engine Tim Philippe Rommelaere, Michael Klaas, Wolfgang Schröder, Dominik Krug⁽¹⁰⁴²⁾</p>	<p>Investigation of Stereo-PIV Measurement of Droplet Velocity in a Pressure Swirl Atomizer Spray Ibrahim Alsafadi, Afshin Goharzadeh, Hamid Ait Abderrahmane⁽¹¹⁵⁴⁾</p>	<p>Dynamics of condensate droplets on a superslippery surface with a lubricant layer. Gyu Do Park, Sang Joon Lee⁽¹¹³⁸⁾</p>
10:10	<p>Comparative Study Of Newtonian And Non-Newtonian Flow Inside A Compliant Aortic Bifurcation Model Benedikt Harald Johanning-Meiners, Michael Klaas⁽¹⁰⁴⁹⁾</p>	<p>Three-dimensional vortical structures in a swirl combustor water model Hanyoung Kim, Jinho Oh, Sechul Oh, Kyung Chun Kim⁽¹¹³²⁾</p>	<p>Experimental Study of the Effects of Turbulence Agglomerator Channels using Stereoscopic PIV Hasan Syafik Maulana, Wei Hsin Tien⁽¹⁰⁵¹⁾</p>	<p>Time-resolved MicroPIV measurements in planar uniform micropore networks with a blocked junction Tian Wang, Fahrettin Gö Khan Ergin, Lijuan Shi, Alexander Shapiro⁽¹⁰⁷²⁾</p>
10:30	<p>Particle Tracking Analysis of Senescent Cell Dynamics Using Frequency-Modulated Dielectrophoresis Ippei Yagi, Satoshi Uchida⁽¹⁰⁶⁴⁾</p>	<p>PIV Measurements of Oxy-Ammonia Coaxial Jet Flames Hazim Shehab, Yong Fan, Norihiko Iki, Masayasu Shimura, Takehiko Segawa, Taku Tsujimura⁽¹¹⁸⁸⁾</p>	<p>Stereo- PIV system to measure wall shear stresses through a curved body [Remote] Chintan Panigrahi, Spencer Zimmerman, Joseph Katz⁽¹⁰⁹⁷⁾</p>	<p>Velocity-Based Analysis of Oscillatory Flow Instability around Pillar Arrays in a Polymer Solution Using μ PIV Syusuke Takizawa, Masahiro Motosuke, Yoshiyasu Ichikawa⁽¹²⁰³⁾</p>
10:50	Break (Drinks provided in Rooms 403, 416, and 418, Central Bldg)			

Day 3 - Saturday Morning II, 28 June 2025

	Experimental Technique and Equipment I Room 417, Central Bldg Chair: Christian Willert	Machine Learning II Room 402, Central Bldg Chair: Daniel Cuppoletti	Stereo PIV III Room 409, Central Bldg Chair: Joerg Koenig	Application II Room 405, Central Bldg Chair: Koichi Nishino
11:20	Real-time Particle Image Velocimetry Using Event-based Imaging Christian Willert , Luca Franceschelli ⁽¹¹⁷⁹⁾	Data-Driven Particle Inertia Bias Correction for Supersonic PIV Dilip Kalagotla, Paul Orkwis, Daniel Cuppoletti ⁽¹¹²⁸⁾	3D-WSS and Pressure Fields Measurement on Laminar Pipe Flow by SS-PIV Nuo Chen , Daisuke Iwata, Yoshiyasu Ichikawa, Masahiro Motosuke ⁽¹¹⁹²⁾	Investigation of an oscillatory particle separator using planar and stereo PIV Theodoros Dimas , Bram Verbeek, Brecht Michiels, Jef R Peeters, Maarten Vanierschot ⁽¹¹⁶⁶⁾
11:40	Development of a defocused PTV technique for 3D3C measurements using a single camera. Application to the dynamics of a pulsed laminar jet Tony Kayvantash , Hervé Duval, Matthieu Cordier, Laurent Zimmer ⁽¹¹⁵⁷⁾	Measurement of size and 3D position of spray drops with astigmatic shadowgraphy and deep learning Mohammad Mehdizadeh Youshanlouei , Gökhan Ergin, Yari Basso, Gabriele Bellani, Massimiliano Rossi ⁽¹¹⁴⁹⁾	A Numerical Exercise: Density Field Extraction Using SPIV Travis Bouck , Nandeesh Hiremath ⁽¹⁰³³⁾	PIV measurement of transient thermocapillary flow driven by local laser heating Ratnanjali Tiwari, Misa Ishimura, Koichi Nishino ⁽¹¹⁹⁶⁾
12:00	Flow in the wake of a vehicle front tire: a comparison between stereoscopic PIV and Two-Pulse 3D Shake-the-Box Timo Gericke, Ahmed Oguzhan Erdogdu ⁽¹⁰²⁰⁾	On Uncertainty Prediction for Deep-Learning-based Particle Image Velocimetry Wei Wang , Jeremiah Hu, Jia Ai, Yong Lee ⁽¹⁰⁴⁴⁾		Flow Visualization of Unsteady Trailing Edge Flows Osman Giray Oquzman ⁽¹¹⁷⁴⁾
12:20	Study on PIV Measurement in Full-Scale Indoor Spaces: Analysis of Airflow around Air conditioner and Occupants Using Multi-Camera and Laser Yuki Arinami , Shin-Ichi Akabayashi, Jiaming Hu ⁽¹¹⁰¹⁾	FED-PV: A large scale synthetic frame/event dataset for particle-based velocimetry Fan Wu , Xiang Feng, Aoyu Zhang, Yong Lee ⁽¹⁰⁴⁵⁾		Analysis of Planar Velocity Profiles in a Rotating Flow Driven by Enclosed Corotating Disks with Insertion Arm and Shroud Opening Using PIV Ibrahim Abubakar Masud , Ren Nakamoto, Tomohiro Ueno, Katsuaki Shirai ⁽¹⁰⁴⁸⁾
12:40	Lunch (Boxed lunch provided on 2nd Floor, Arts Bldg)			

Day 3 - Saturday Afternoon I, 28 June 2025

	Experimental Technique and Equipment II Room 417, Central Bldg Chair: Jochen Kriegseis	Volumetric Techniques II Room 402, Central Bldg Chair: Callum Atkinson	BOS/LIF Room 409, Central Bldg Chair: Yu Matsuda	
13:50	Towards Massively Parallel Particle Tracking Velocimetry <u>Jörg Thomas Sommerau</u> , Bharath Ganapathisubramani, John Lawson ⁽¹¹⁴⁵⁾	Treatment of light reflections in Omnidirectional PIV <u>Adrian Grille Guerra</u> , Laura Porcar Galan, Andrea Sciacchitano, Fulvio Scarano ⁽¹⁰⁷⁰⁾	A Transformer-Based Method for Measuring Displacement in Background Oriented Schlieren for Hypersonic Flow Density Fields [Remote] <u>Hua Yang</u> , Zekun Hao, Lei Chen, Yun Xu ⁽¹⁰⁶⁰⁾	
14:10	Omnidirectional Particle Image Velocimetry <u>Luuk Antonie Hendriksen</u> ⁽¹¹⁰⁴⁾	Volumetric Digital Holographic Particle Tracking Velocimetry of High Reynold Number Turbulent Channel Flow <u>Bihai Sun</u> , <u>Callum Atkinson</u> , Julio Soria ⁽¹¹⁸³⁾	Time-Resolved Density Measurement via Omnidirectional Integration Applied to Background-Oriented Schlieren <u>Jonathan Davami</u> , Thomas J Juliano, Jose Moreto, Xiaofeng Liu ⁽¹¹²¹⁾	
14:30	PIV/PTV Measurements of Thermocapillary Flow in a Liquid Layer using Fluorescent Tracer Particles Excited with Ultraviolet Light <u>Taishi Yano</u> , Yuji Nakanishi ⁽¹⁰⁷⁷⁾	Intraglottal Flow in Anatomically Realistic Models of the Larynx Using Tomographic PIV <u>Charles Farbos De Luzan</u> , Marion Raquin, Jacob Michaud-Dorko, Liran Oren, Ephraim Gutmark ⁽¹⁰⁴¹⁾	Measuring airflow temperature distribution using ultra-thin glass tubes injected with temperature sensitive phosphors <u>Shumpei Funatani</u> , Takahiro Yamamoto, Kyosuke Kuroda, Hiroaki Higashioka, Yusaku Tsukamoto ⁽¹¹⁵⁸⁾	
14:50		Full-length Wake Measurement of a Full-Scale Passenger Car using 'Ring of Fire' PIV <u>Daniel Butcher</u> , James Knowles, James Upton, David Hollis, Oguzhan Erdogdu ⁽¹⁰⁸²⁾	Simultaneous PLIF and PTV measurements of temperature and velocity in a stratified thermal energy storage <u>Clemens Naumann</u> , Christian Cierpka ⁽¹⁰³⁷⁾	
15:10	Break (Drinks provided in Rooms 403, 416, and 418, Central Bldg)			

Day 3 - Saturday Afternoon II, 28 June 2025

Day 3 - Saturday Afternoon II, 28 June 2025				
	Biological Flows Room 417, Central Bldg Chair: Michael Klaas	Flow Instabilities II Room 402, Central Bldg Chair: Hyoungsoo Kim		
15:40	Surfing on Vortices: Bird flight responses to an unsteady vortex wake Siyang Hao, Rónán Gissler, Kenny Breuer ⁽¹⁰¹¹⁾	Investigation of Flow Fields for Stability in Embedded Printing Applications Hyejoon Jun , Junil Ryu, Hyoungsoo Kim ⁽¹⁰¹⁸⁾		
16:00	PIV Analysis of a Turbulence Generator for Microalgae Study Wenhao Niu , Takuji Ishikawa, Kenji Kikuchi ⁽¹⁰²⁴⁾	Suppressing Rayleigh-Taylor Instability via Solutal Marangoni Effects Minwoo Choi , Hyejun Jeon, Hyoungsoo Kim ⁽¹⁰¹⁶⁾		
16:20	Vortex disappearance of high-density bacterial suspension with shear flow. Ishikawa Takuto , Kenji Kikuchi ⁽¹⁰⁸⁵⁾			
16:40	Closing Room 417, Central Bldg			