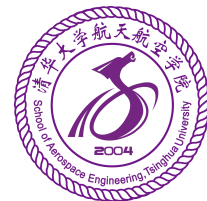
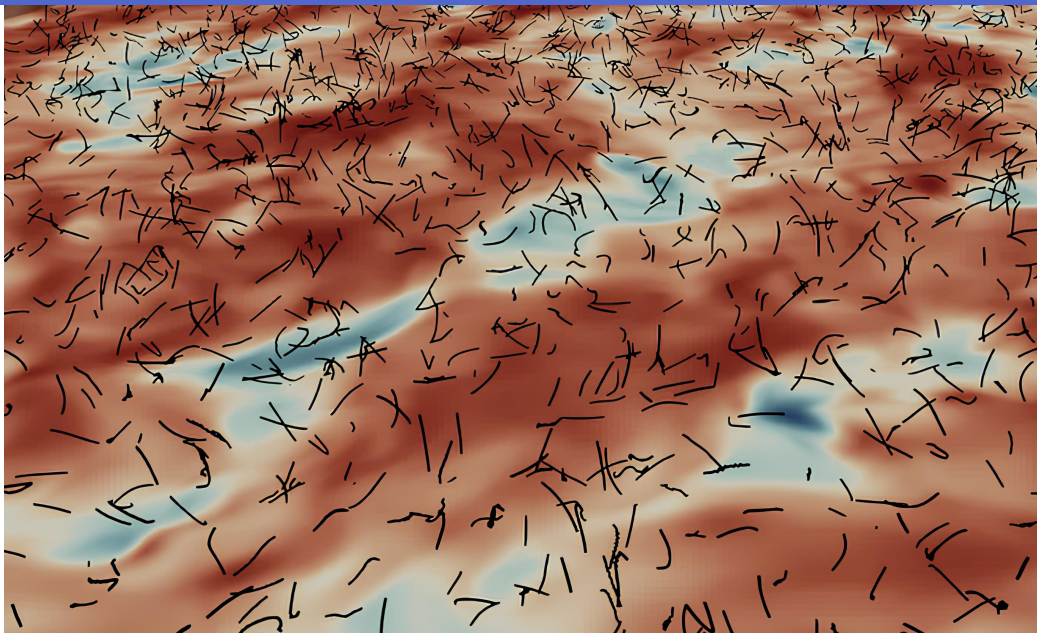


# 3<sup>rd</sup> BICTAM-CISM Symposium on Dispersed Multiphase Flows From Measuring to Modeling



**Udine, Italy**

**Auditorium Sgorlon, via Monsignor Pasquale Margreth 3**

**July 22-24, 2026**

## SYMPOSIUM SCHEDULE-AT-A-GLANCE

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### Wednesday, July 22, 2026

Time	
8:30 - 9:00	Registration & Opening Remarks
9:00 - 9:40	Keynote Lecture: Chao Sun, CHN
9:45-10:30	Session #1-1 (regular talks)
10:30-11:00	Coffee break
11:00-12:45	Session #1-2 (regular talks)
12:45-14:00	Lunch
14:00-14:40	Keynote Lecture: Omar Matar, UK
14:45-16:00	Session #2-1 (regular talks)
16:00-16:30	Coffee break
16:30-18:15	Session #2-2 (regular talks)

### Thursday, July 23, 2026

Time	
8:45 - 9:25	Keynote Lecture: Gholamhossein Bagheri, GER
9:30-10:30	Session #3-1 (regular talks)
10:30-11:00	Coffee break
11:00-12:45	Session #3-2 (regular talks)
12:45-14:00	Lunch
14:00-14:40	Keynote Lecture: Kun Xue, CHN
14:45-16:00	Session #4-1 (regular talks)
16:00-16:30	Coffee break
16:30-18:15	Session #4-2 (regular talks)

### Friday, July 24, 2026

Time	
8:45 - 9:25	Keynote Lecture: Yantao Yang, CHN
9:30-10:30	Session #5-1 (regular talks)
10:30-11:00	Coffee break
11:00-12:45	Session #5-2 (regular talks)
12:45-14:00	Lunch
14:00-14:40	Keynote Lecture: Julien Chauchat, FRA
14:45-16:15	Session #6-1 (regular talks)
16:20-16:30	Closing

## FULL SCIENTIFIC PROGRAM

Wednesday July 22<sup>nd</sup> (Day 1)

	Time			CHAIRPERSON
	From	To		
	8:50	9:00	Opening Remarks	Cristian Marchioli Lihao Zhao
Keynote #1	9:00	9:40	<b>The physics of flowing dense emulsions in wall-bounded turbulence</b> <b>Speaker: Chao Sun, Tsinghua University, China</b>	
Session #1-1 Theory and Stochastic Modelling	9:45	10:00	Modelling of particle diffusion in turbulence using the kinetic PDF approach Speaker: Chris Stafford, Iowa State University, USA	
	10:00	10:15	Unified Lagrangian stochastic modelling for acceleration and velocity gradient in isotropic turbulence Speaker: Ramiro Ezequiel Castro Torre, IMFT Toulouse, France	
	10:15	10:30	In the footsteps of Albert Einstein – A kinetic theory for the dispersion and clustering of turbulent gas particle suspensions Speaker: Mike Reeks, Newcastle University, UK	
	10:30	11:00	Coffee break	
Session #1-2 Multiphase Modelling and Numerical Methods	11:00	11:15	Pair dispersion by intermittent wavelet-based stochastic fields Speaker: Clément Morhain, Université Paris-Saclay, France	
	11:15	11:30	Eulerian-Lagrangian framework for simulations of dispersed multiphase flows with interacting particles and/or polymers Speaker: Francesco Serafini, University of Rome “La Sapienza”, Italy	
	11:30	11:45	Euler-Lagrange LES of turbulent bubble plumes with a new lift force model Speaker: Mohammad Karimi Zand, Metallurgical Competence Center Linz, Austria	
	11:45	12:00	A unified mesoscopic framework for two-phase flows via inverse design Speaker: Jun Lai, Guangzhou Maritime University, China	
	12:00	12:15	A wall-modeled LES framework for particle-laden turbulent flows in complex geometries Speaker: Federico Dalla Barba, University of Padova, Italy	
	12:15	12:30	The effect of electrostatic interactions on bidisperse charged particles transported by a homogeneous isotropic turbulence Speaker: Clovis Schoeck, IMFT Toulouse, France	
	12:30	12:45	On the buoyancy force density in two-fluid continuum models Speaker: Thomas Pähtz, Zhejiang University, China	
	12:45	14:00	Lunch	
Keynote #2	14:00	14:40	<b>Numerical simulations of complex multiphase flows</b> <b>Speaker: Omar Matar, Imperial College London, UK</b>	

Session #2-1 Fibers and Elongated Particles I	14:45	15:00	Three-dimensional dynamics of fiber-like shaped particles in a jet-in-crossflow configuration	
			Speaker: Diego Fernando Garcia, Otto-von-Guericke-University Magdeburg, Germany	
	15:00	15:15	Tomographic PIV study of fiber-flow interaction in a turbulent channel flow	
			Speaker: Dominic S. Sebastian, Technion, Israel	
	15:15	15:30	Optical activity-based measurements of fiber-flow interaction in the near-wall region of a turbulent channel flow	
			Speaker: Vlad Rinsky, Technion, Israel	
15:30	15:45	Direct numerical simulations of a dilute turbulent jet laden with spheroidal particles		
		Speaker: Jietuo Wang, Tsinghua University, China		
15:45	16:00	Dynamics of long flexible fibers turbulent flow		
		Speaker: Darish Jeswin Dhas, University of Udine, Italy		
	16:00	16:30	Coffee break	
Session #2-2 Particle Dynamics in Turbulence	16:30	16:45	Inertial particle clustering in the transitional wake of a normal flat plate	
			Speaker: Deekshith I. Poojary, IIT Madras, India	
	16:45	17:00	Decoupling between inertial and gravitational effects in the dynamics of particles in turbulence	
			Speaker: Jérémie Auzoux, ENS Lyon, University of Lyon, France	
	17:00	17:15	Settling velocity of Kolmogorov-size and finite-size particles in homogeneous isotropic turbulence	
			Speaker: Zhaosheng Yu, Zhejiang University, China	
	17:15	17:30	Slip and unsteady drag dynamics of finite-size inertial particles in homogeneous turbulence under micro-gravity	
			Speaker: Facundo Cabrera-Booman, Portland State University, USA	
	17:30	17:45	Inertial particle settling in turbulence under gravity: the roles of preferential sampling and loitering	
			Speaker: Hugo Pradel, ENS Lyon, University of Lyon, France	
17:45	18:00	Stochastic resonance of rotating particles in turbulence		
		Speaker: Ziqi Wang, Eindhoven University of Technology, The Netherlands		
18:00	18:15	Particle-resolved simulations of many spherical particles settling in an inflow/outflow configuration		
		Speaker: Manuel Moriche, Wien University of Technology, Austria		
	19:45	21:45	Pizza Dinner	

Thursday July 23<sup>rd</sup> (Day 2)

	Time			CHAIRPERSON
	From	To		
Keynote #3	8:45	9:25	<b>The mystery of the lucky droplet: Can turbulence trigger rain in warm clouds?</b>	
			<b>Speaker: Gholamhossein (Mohsen) Bagheri, Max Planck Institute for Dynamics and Self-Organization, Germany</b>	
Session #3-1 Bubble Dynamics I	9:30	9:45	Influence of dissolved gas concentration on the lifetime of surface bubbles in volatile liquids	
			Speaker: Yanshen Li, University of Chinese Academy of Sciences, China	
	9:45	10:00	Capillary migration of floating bubbles at a free surface	
			Speaker: Kuntal Patel, Max Planck Institute Gottingen, Germany	
	10:00	10:15	Why a pair of bubbles rising in-line becomes more stable with the shape oblateness	
			Speaker: Jie Zhang, Xi'an Jiaotong University, China	
10:15	10:30	Predicting the bubble-particle collision rate in turbulence		
		Speaker: Dominik Krug, RWTH Aachen, Germany		
	10:30	11:00	Coffee break	
Session #3-2 Droplets, Interfaces and Marangoni Flows	11:00	11:15	Spatiotemporal analysis of single droplet under HIT	
			Speaker: Arda Safak, Johannes Kepler University, Austria	
	11:15	11:30	Solutal-Marangoni-driven freezing dynamics of supercooled ethanol-water droplets	
			Speaker: Feng Wang, Tsinghua University, China	
	11:30	11:45	A one-half law relating viscous-pressure and viscous-stress forces on a spherical droplet in incompressible flow	
			Speaker: Tian Long, Xi'an Jiaotong University, China	
	11:45	12:00	Dynamics of polymer-laden drops on inclined surfaces	
			Speaker: Jessica Wilson, Tsinghua University, China	
	12:00	12:15	Droplets in HIT: 3D internal flow measurement	
			Speaker: Fabio Sortini, Wien University of Technology, Austria	
12:15	12:30	Marangoni instabilities of thin cylindrical drops vertically immersed in stratified liquids		
		Speaker: Li-Chen Huang, University of Chinese Academy of Sciences, China		
12:30	12:45	The multifractal structure of energy dissipation in multiphase turbulence		
		Speaker: Marco Crialesi-Esposito, University of Modena and Reggio Emilia, Italy		
	12:45	14:00	Lunch	
Keynote #4	14:00	14:40	<b>Engineering method for cross-scale evolution of supersonic droplet cloud</b>	
			<b>Speaker: Kun Xue, Beijing Institute of Technology, China</b>	

Session #4-1 Fibers and Elongated Particles II	14:45	15:00	Interface-resolved DNS studies of flexible fiber dynamics in a fluid using an LBM-DEM method	
			Speaker: Junjie Chen, Zhejiang University, China	
	15:00	15:15	Modelling of elongated particles in channel flows with realistic rough walls	
			Speaker: Manuel A. Taborda, Otto-von-Guericke University Magdeburg, Germany	
	15:15	15:30	Numerical simulation of a long flexible fibre in a lid-driven fluid cavity	
			Speaker: Subhadrakutty (Subbu) Radhakrishnakumar, Dresden University of Technology, Germany	
	15:30	15:45	Length effect on rigid fiber dynamics in turbulent channel flow	
			Speaker: Defa Sun, Université Côte d'Azur, CNRS, France	
	15:45	16:00	Fragmentation of slender fibres by inertial-range turbulence: Quasi-static mechanics, hazard scaling and intermittency effects	
			Speaker: Andrea Mazzino, University of Genova, Italy	
	16:00	16:30	Coffee break	
Session #4-2 Turbulence, Complex Flows and Biofluid Dynamics	16:30	16:45	Numerical investigation of drag enhancement by interfacial tension in Taylor-Couette turbulence	
			Speaker: Jinghong Su, Tsinghua University, China	
	16:45	17:00	Length scales and interphase energy transfer in turbulent gas-particle flows	
			Speaker: Simon Schneiderbauer, Johannes Kepler University, Austria	
	17:00	17:15	A sharp interface multiphase method for shock-induced reactive droplets with phase change	
			Speaker: Shucheng Pan, Northwestern Polytechnical University, China	
	17:15	17:30	The dynamics of copepods in turbulence: how micro-swimmers can adapt their behaviour	
			Speaker: Eric Climent, IMFT Toulouse, France	
	17:30	17:45	Swimmer-resolving simulations on the biogenic hydrodynamic transport of cruising copepods	
			Speaker: Rui Zhu, Dresden University of Technology, Germany	
17:45	18:00	Lagrangian angular velocity of fluid elements in homogeneous isotropic turbulence		
		Speaker: Zhiwen Cui, Hunan University, China		
18:00	18:15	Time-reversal-symmetry breaking in free-surface turbulence		
		Speaker: Yaxing Li, Zhejiang University, China		
	19:45	23:00	Social Dinner	

Friday July 24<sup>th</sup> (Day 3)

	Time			CHAIRPERSON
	From	To		
Keynote #5	8:45	9:25	<b>A numerical framework for multi-medium and multi-component incompressible flows and its applications in natural and engineering systems</b>	
			<b>Speaker: Yantao Yang, Peking University, China</b>	
Session #5-1 Bubble Dynamics II	9:30	9:45	Bubble-generated turbulent convection in a liquid vessel	
			Speaker: Ron Shnapp, Ben-Gurion University of the Negev, Israel	
	9:45	10:00	Preferential flow control by non-coalescing multi-bubble systems in pore-doublet channels	
			Speaker: Caoxing Mo, Beihang University, China	
	10:00	10:15	Eliminating spurious currents in the simulation of hydrogen micro-bubbles for electrolysis	
			Speaker: Maïke Baltussen, Eindhoven Univ. Technology, The Netherlands	
	10:15	10:30	Dynamics of a large spherical bubble in a turbulent flow	
			Speaker: Elisabetta De Angelis, University of Bologna, Italy	
10:30	11:00	Coffee break		
Session #5-2 Reactive, Thermal and Industrial Flows	11:00	11:15	Numerical simulation of powder melting and multiphase keyhole dynamics in laser powder bed fusion	
			Speaker: Zhiyuan Yang, Zhejiang University, China	
	11:15	11:30	Asymmetric particle transport in turbulent flows within concentric annular ducts	
			Speaker: Chi Zhang, Peking University, China	
	11:30	11:45	Numerical investigation of cohesive iron powder fluidization in metal energy storage systems	
			Speaker: Bingchen Li, Zhejiang University, China	
	11:45	12:00	Wall-bounded turbulence driven by heat-releasing particles	
			Speaker: Yuhang Du, Hebei University, China	
	12:00	12:15	Active control of bubbling fluidized bed by coupling deep reinforcement learning with reduced-order model	
			Speaker: Junjie Lin, Zhejiang University, China	
	12:15	12:30	Release of ice-entrapped bubbles accelerates melting	
			Speaker: Jin Hu, Tsinghua University, China	
	12:30	12:45	Direct numerical simulation of boiling	
			Speaker: Alessio Roccon, University of Udine, Italy	
12:45	14:00	Lunch		
Keynote #6	14:00	14:40	<b>From turbulence to ripples: A two-fluid perspective on sediment transport</b>	
			<b>Speaker: Julien Chauchat, INRAE Grenoble, France</b>	
	14:45	15:00	Simulating aeolian sand transport with a turbulence-informed stochastic particle force model	
			Speaker: Ruifeng Hu, Lanzhou University, China	

Session #6-1 Sediment Transport and Environmental Flows	15:00	15:15	Sediment transport in a half-channel turbulent flow: The effect of density	
			Speaker: Xinyu Jiang, Polytechnic University of Torino, Italy	
	15:15	15:30	Numerical study of the randomness of single particle entrainment in wall turbulence on rough bed	
			Speaker: Ping Wang, Lanzhou University, China	
	15:30	15:45	Wave-induced transport of neutrally buoyant particles over a shallow rippled seabed	
			Speaker: Karthikeyan Jagadeesan, University of Genova, Italy	
	15:45	16:00	Wall-resolved large-eddy simulation of electrification of wind-blown sand flows	
			Speaker: Huan Zhang, Lanzhou University, China	
16:00	16:15	Fiber fragmentation in turbulence		
		Speaker: Harishankar Muppurala, University of Udine, Italy		
Closing	16:20	16:30	Closing Remarks	Lihao Zhao, Cristian Marchioli