AJK FLUIDS 2019

ASME — JSME — KSME
JOINT FLUIDS
ENGINEERING CONFERENCE

Conference: July 28 - August 1
Exhibition: July 29 - July 31
Hyatt Regency, San Francisco, CA

Schedule at a Glance

The American Society of Mechanical Engineers®
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ASME
SETTING THE STANDARD

Schedule at a Glance

SUNDAY, JULY 28

TIME	SESSION #	EVENT	LOCATION
11:00AM - 5:30PM		Registration	Regency A, Street Level
11:00AM - 2:45PM		FED EC Meeting	Golden Gate Room, Bay level
3:00PM - 3:45PM		FED Officer Training - Dr. Judith Bamberger (Closed Door)	Golden Gate Room, Bay level
4:00PM - 5:30PM		FED EC Meeting with TC Chairs/Vice Chairs (Closed Door)	Golden Gate Room, Bay Level
6:00PM - 8:00PM		**Welcome Reception**	**Atrium, Atrium level**

MONDAY, JULY 29

TIME	SESSION #	EVENT	LOCATION
7:30AM - 5:30PM		Registration	Regency A, Street Level
7:30AM - 5:30PM		Exhibits	Grand Ballroom Foyer, Steet Level
7:30AM - 8:00AM		Breakfast	Grand Ballroom B & C, Street Level
8:00AM - 8:45AM		**Plenary Session**	**Grand Ballroom A, Street Level**
		Using Probabilistic CFD Methods for Aircraft Certification by Analysis by Juan J. Alonso, Stanford University in San Francisco, United States	
9:00AM - 9:45AM		**Plenary Session**	**Grand Ballroom A, Street Level**
		Multi-physics CFD simulation of particle deposition with a hybrid grid- and particle-based method by Makoto Yamamoto, Tokyo University of Science in Tokyo, Japan	
9:45AM - 10:00AM		Coffee Break	Grand Ballroom Foyer, Street Level
10:00AM - 11:00AM		CFDTC Meeting (Open to public)	Golden Gate Room, Bay Level
11:00AM - 12:00PM		MNFDTC Meeting (Open to public)	Bayview A, Bay level
10:00AM - 12:00PM		**Technical Sessions**	
	3-2-1	Pump Design I	Seacliff A, Bay Level
	3-2-13	Special Pumps	Seacliff B, Bay Level
	5-3-1	Experimenal Techniques I	Seacliff C, Bay Level
	5-5-1	Gas-Flo Liquid ws I Sprays	Seacliff D, Bay Level
	5-4-1	Cavitation-I: Physics & Modeling of Cavitation	Room D, Concourse Level
	4-2-1	Noninvasive Measurements in Single & Multiphase	Room E, Concourse Level
	4-3-1	Fluid Dynamics of Windy Energy	Room F, Concourse Level
	1-15-1	Vortex Dynamics I	Room G, Concourse Level
	1-5-1	Wall-Bounded Turbulent Flows	Room L, Concourse Level
	5-10-1	Capillary Flow	Room M, Concourse Level
	5-11-1	Computational Studies in Erosion, Slurry, & Sedimetation	Room N, Concourse Level
	1-14-1	High-Speed Flows	Room O, Concourse Level
12:00PM - 1:30PM		Lunch (On your own)	
12:00PM - 1:30PM		Towne Hall Meeting (Open to public)	Bayview A, Bay level
1:30PM - 2:30PM		FASTC Meeting (Open to public)	Golden Gate Room, Bay Level

Schedule at a Glance

MONDAY, JULY 29

TIME	SESSION #	EVENT	LOCATION
1:30PM - 3:30PM		**Technical Sessions**	
	3-2-2	Pump Design 2	Seacliff A, Bay Level
	5-15-1	Shock-Driven Turbulent Mixing-Modeling and Simulations	Seacliff B, Bay Level
	5-3-2	Experimental Techniques II	Seacliff C, Bay Level
	5-5-2	Gas-Liquid Flows 2 - Bubbly Flows	Seacliff D, Bay Level
	5-4-2	Cavitation-2: Physics & Modeling of Cavitation	Room D, Concourse Level
	4-2-2	Nonivasive Measure-ments in Single and Multiphase Flows - Bubbly Flows and Droplets	Room E, Concourse Level
	4-3-2	Fluid Dynamics of Wind Energy - II	Room F, Concourse Level
	1-15-2	Vortex Dynamics 2	Room G, Concourse Level
	1-5-2	Turbulent Shear Flows & Rotation Effects	Room L, Concourse Level
	5-10-2	Free Surface Flow and Droplet	Room M, Concourse Level
	5-11-2	Experimental Studies in Erosion, Slurries & Sedimentation	Room N, Concourse Level
	5-7-1	Gas-Solis Flow Applications	Room O, Concourse Level
3:30PM - 3:45PM		Coffee Break	Grand Ballroom Foyer, Street Level
3:45PM - 4:45PM		Honors & Awards Committee Meeting (Closed Door)	Golden Gate Room, Bay Level
3:45PM - 5:45PM		**Technical Sessions**	
	3-2-3	HPC-CFD LES Pump Study	Seacliff A, Bay Level
	5-15-2	Particles and Subgrid Scale Modeling	Seacliff B, Bay Level
	5-14-1	Multiphase Flows In Nuclear Engineering I	Seacliff C, Bay Level
	5-5-3	Gas-Liquid Flows 3 - Applications	Seacliff D, Bay Level
	1-1-1	Fluids Engineering Education	Room D, Concourse Level
	1-2-1	Aerospace	Room E, Concourse Level
	1-6-1	Flow Manipulation	Room F, Concourse Level
	1-9-1	Transport Phenomena in Energy Conservation & Manufacturing Processes	Room G, Concourse Level
	1-5-3	Surface Effects in Turbulance	Room L, Concourse Level
	1-12-1	CFD Verification and Validation	Room M, Concourse Level
	4-8-1	Experimental Facilities In Fluid Mechanics	Room N, Concourse Level
	5-7-2	Gas-Solid Flow Theoretical Analysis	Room O, Concourse Level
4:45PM - 5:45PM		GSSC Meeting (Closed Door)	Golden Gate Room, Bay Level
6:00PM - 6:45PM		**Plenary Session**	**Grand Ballroom A, Street Level**
		Wall Shear Stress of Hemodynamic Flow Measured by 4D Flow MRI by Simon Song, Hanyang University, South Korea	

Schedule at a Glance

TUESDAY, JULY 30

TIME	SESSION #	EVENT	LOCATION
7:30AM - 5:30PM		Registration	Regency A, Street Level
7:30AM - 5:30PM		Exhibits	Grand Ballroom Foyer, Steet Level
7:30AM - 8:00AM		Breakfast	Grand Ballroom B & C, Street Level
8:00AM - 8:45AM		**Plenary Session**	**Grand Ballroom A, Street Level**
		Challenges towards clinical applications: Computational hemodynamics for cerebral circulation by Marie Oshima, The University of Tokyo in Tokyo, Japan	
9:00AM - 9:45AM		**Plenary Session**	**Grand Ballroom A, Street Level**
		Past, Present and Future of Three-Dimensional Flow Control in Pumping Machinery from Perspective of a Researcher in Industry by Akira Goto, Ebara Corporation, Japan	
9:45AM - 10:00AM		Coffee Break	Grand Ballroom Foyer, Street Level
10:00AM - 11:00AM		ExCom Advisory Meeting (Closed Door)	Golden Gate Room, Bay Level
11:00AM - 12:00PM		ExCom with ASME Staff (Closed Door)	Golden Gate Room, Bay Level
10:00AM - 12:00PM		**Technical Sessions**	
	3-2-4	Two-Phase Flow Pumps : Liquid-Gas	Seacliff A, Bay Level
	3-2-12	Pump Turbines - System Interaction	Seacliff B, Bay Level
	3-10-1	Rotating Machinery I - Seals	Seacliff C, Bay Level
	5-5-4	Gas-Liquid Flows 4 - Applications	Seacliff D, Bay Level
	5-6-1	Separation, Settling, Spherical and Non-Spherical Particle Flows	Room D, Concourse Level
	1-7-1	Plasma Actuators	Room E, Concourse Level
	5-9-1	Bubble, Droplet, and Aerosol Dynamics I	Room F, Concourse Level
	2-8-1	Automotive Flows I	Room G, Concourse Level
	2-12-1	Multi-Physics Simulation I	Room L, Concourse Level
	3-7-1	Fluid Power Systems I	Room M, Concourse Level
	3-9-1	Propulsion I	Room N, Concourse Level
	3-3-1	Optimization	Room O, Concourse Level
12:00PM - 1:30PM		Lunch (On your own)	
12:00PM - 1:30PM		Future AJKFluids Meeting 2023 (Closed Door)	Golden Gate Room, Bay Level
1:30PM - 2:30PM		FMITC Meeting (Open to public)	Golden Gate Room, Bay Level
2:30PM - 3:30PM		FMTC Meeting (Open to public)	Golden Gate Room, Bay Level

Schedule at a Glance

TUESDAY, JULY 30

TIME	SESSION #	EVENT	LOCATION
1:30PM - 3:30PM		**Technical Sessions**	
	3-2-5	Unsteady Flows - Off Design	Seacliff A, Bay Level
	7-1-1	Panel Celebrating Dr. Andrew's Life and Research Contributions	Seacliff B, Bay Level
	3-10-2	Rotating Machinery II - Punps and Compressors	Seacliff C, Bay Level
	2-10-1	Utility of OpenSource CFD Packages for Propeller Hydrodynamics	Seacliff D, Bay Level
	5-6-2	Pump and Pipe Flows	Room D, Concourse Level
	1-7-2	Drag Reduction and Separation Control	Room E, Concourse Level
	5-9-2	Bubble, Droplet, and Aerosol Dynamics II	Room F, Concourse Level
	2-8-2	Data Based Methods and Reduced Order Modeling	Room G, Concourse Level
	2-12-2	Multi-Physics Simulation II	Room L, Concourse Level
	3-7-2	Fluid Power Systems	Room M, Concourse Level
	3-9-2	Propulsion II	Room N, Concourse Level
	3-3-2	Automotive Flows II	Room O, Concourse Level
3:30PM - 3:45PM		Coffee Break	Grand Ballroom Foyer, Street Level
3:45PM - 5:45PM		**Technical Sessions**	
	3-2-6	Virtual Models - CFD Simulation	Seacliff A, Bay Level
	7-1-2	Contemporary Research to Honor Malcolm J. Andrew's Legacy	Seacliff B, Bay Level
	3-10-3	Rotating Machinery III - Hydropower	Seacliff C, Bay Level
	2-10-2	Multi-Physics Modelling Using Open Source Softwares	Seacliff D, Bay Level
	5-6-3	Studies in Rheology	Room D, Concourse Level
	1-7-3	Active Fluids and Flow Control by Pulsation	Room E, Concourse Level
	5-9-3	Bubble, Droplet, and Aerosol Dynamics III	Room F, Concourse Level
	2-8-3	Machine Learning	Room G, Concourse Level
	2-5-1	Bluff Body Systems	Room L, Concourse Level
	3-3-3	Automotive Flows III	Room M, Concourse Level
	2-2-1	CFD Development I	Room N, Concourse Level
6:30PM - 9:00PM		**Awards Dinner**	**Grand Ballroom A,B & C Street level**

Schedule at a Glance

WEDNESDAY, JULY 31

TIME	SESSION #	EVENT	LOCATION
7:30AM - 5:30PM		Registration	Regency A, Street Level
7:30AM - 5:30PM		Exhibits	Grand Ballroom Foyer, Steet Level
7:30AM - 8:00AM		Breakfast	Grand Ballroom B & C, Street Level
8:00AM - 8:45AM		**Plenary Session**	**Grand Ballroom A, Street Level**
		Analysis and Design of Membraneless Microfluidic Fuel Cells by Kwang-Yong Kim, Inha University, South Korea	
9:00AM - 9:45AM		**Plenary Session**	**Grand Ballroom A, Street Level**
		Development of Floating Type Ocean Current Turbine for Kuroshio Current by Masafumi Kawai, IHI Corporation, Japan	
9:45AM - 10:00AM		Coffee Break	Grand Ballroom Foyer, Street Level
10:00AM - 11:00AM		MFTC Meeting (Open to public)	Golden Gate Room, Bay Level
10:00AM - 12:00PM		**Technical Sessions**	
	3-2-7	Cavitation	Seacliff A, Bay Level
	2-9-1	Emerging CFD Methods	Seacliff B, Bay Level
	3-10-4	Rotating Machinery IV	Seacliff C, Bay Level
	3-4-1	Combustion I	Seacliff D, Bay Level
	2-7-1	Computational Turbulent Combustion	Room D, Concourse Level
	2-1-2	Applied CFD II	Room E, Concourse Level
	3-1-1	Fluid Machinery I	Room F, Concourse Level
	6-1-1	Modelling & Simulation in Microfluidics	Room G, Concourse Level
	2-11-1	CFD in Medicine and Bio-Systems I	Room L, Concourse Level
	2-5-2	Biological Applications	Room M, Concourse Level
	6-3-1	Biomicrofluidics	Room N, Concourse Level
	1-3-1	Session I	Room O, Concourse Level
12:00PM - 1:30PM		Lunch (On your own)	
12:00PM - 1:30PM		AE Lunch Meeting (Closed Door)	Bayview A, Bay Level
1:30AM - 3:30PM		**Technical Sessions**	
	3-2-8	Inducers	Seacliff A, Bay Level
	5-1-1	Computational Interfacial Methods	Seacliff B, Bay Level
	3-10-5	Rotating Machinery V - Turbines	Seacliff C, Bay Level
	3-4-2	Combustion II	Seacliff D, Bay Level
	1-4-1	Session 1	Room D, Concourse Level
	2-1-3	Applied CFD III	Room E, Concourse Level
	3-1-2	Fluid Machinery II	Room F, Concourse Level
	4-1-1	Fluid Measurements and Instrumentation- Jets and Sprays	Room G, Concourse Level
	2-11-2	CFD in Medicine and Bio-Systems II	Room L, Concourse Level
	2-5-3	New Methods and IBM Applications	Room M, Concourse Level
	4-5-1	Novel Techniques and Uncertainty Quantification in Fluids Mechanics	Room N, Concourse Level
	1-3-2	Session 2	Room O, Concourse Level
3:30PM - 3:45PM		Coffee Break	Grand Ballroom Foyer, Street Level

Schedule at a Glance

WEDNESDAY, JULY 31

TIME	SESSION #	EVENT	LOCATION
3:45AM - 5:45PM		**Technical Sessions**	
	3-2-11	Special Pumping Medium	Seacliff A, Bay Level
	5-1-2	Computational Multiphase Flow	Seacliff B, Bay Level
	3-10-6	Rotating Machinery VI - Bearings	Seacliff C, Bay Level
	6-8-1	Micro/Nano Fabrication for Fluidic System	Seacliff D, Bay Level
	1-4-2	Session 2	Room D, Concourse Level
	2-1-6	Applied CFD VI	Room E, Concourse Level
	3-1-3	Fluid Machinery III	Room F, Concourse Level
	4-1-2	Fluid Measurements and Instrumentation Bubbly Flows & Mixing	Room G, Concourse Level
	3-6-1	Industrial Fluid Mechanics I	Room L, Concourse Level
	2-5-4	Industrial and Aerospace Applications	Room M, Concourse Level
	4-6-1	Volumetric or Tomographic Techniques and Applications in Fluids Mechanics	Room N, Concourse Level
	1-3-3	Session 3	Room O, Concourse Level
6:00PM - 9:00PM		Conference/Track Organizers Thank You (Closed Door Event)	

THURSDAY, AUGUST 1

TIME	SESSION #	EVENT	LOCATION
7:30AM - 12:00PM		Registration	Regency A, Street Level
7:30AM - 8:00AM		Breakfast	Grand Ballroom B & C, Street Level
8:00AM - 8:45AM		**Plenary Session**	**Grand Ballroom A, Street Level**
		Verification, Validation, Scaling and Uncertainty Quantification for Thermal-Hydraulics Applications by Upendra Rohatgi, Brookhaven National Laboratory, United States	
9:00AM - 9:45PM		**Plenary Session**	**Grand Ballroom A, Street Level**
		Expedition to flow phenomena in vascular plants and development of biomimetic technologies by Sang-Joon Lee, Pohang University Of Science & Technology, South Korea	
9:00AM - 12:00PM		**NASA AMES Research Centre Tour**	**Moffett Field, San Francisco, United States**
		Bus Departs at 7:00AM and Returns at 1:15PM	
9:45AM - 10:00AM		Coffee Break	Grand Ballroom Foyer, Street Level
10:00AM - 12:00PM		ExCom Meeting (Closed Door)	Golden Gate Room, Bay Level

Schedule at a Glance

THURSDAY, AUGUST 1

TIME	SESSION #	EVENT	LOCATION
10:00AM - 12:00PM		**Technical Sessions**	
	3-2-9	Pressure Pulsations - Vibrations - Monitoring	Seacliff A, Bay Level
	5-13-1	Numerical Simulations of Multiphase Flows in Petroleum Engineering	Seacliff B, Bay Level
	2-1-1	Applied CFD I	Seacliff C, Bay Level
	6-4-1	Micro-Total-Analysis-Systems and Lab-On-A-Chip	Seacliff D, Bay Level
	1-4-3	Session 3	Room D, Concourse Level
	2-1-7	Applied CFD VII	Room E, Concourse Level
	3-1-4	Fluid Machinery IV	Room F, Concourse Level
	4-1-3	Fluid Measurements and Instrumentation - Techniques	Room G, Concourse Level
	3-6-2	Industrial Fluid Mechanics II	Room L, Concourse Level
	4-7-1	Data Processing / Algorithms in Fluid Measurements	Room N, Concourse Level
	2-3-1	Wing, Airfoil, and Cylinder Flows	Room O, Concourse Level
12:00PM - 1:30PM		Lunch (On your own)	
12:00PM - 1:30PM		ExCom/TC Chair/Vice Chairs Meeting (Closed Door)	Golden Gate Room, Bay Level
1:30PM - 3:30PM		**Technical Sessions**	
	3-2-10	Hydraulic Loads - Dynamic Behavior	Seacliff A, Bay Level
	5-13-2	Experimental Characterization of Multi- phase Flows in Petroleum Engineering	Seacliff B, Bay Level
	2-1-5	Applied CFD V	Seacliff C, Bay Level
	6-5-1	Sensor and Tranducer for Microfluidic Applications	Seacliff D, Bay Level
	1-4-4	Session 4	Room D, Concourse Level
	2-1-8	Applied CFD VIII	Room E, Concourse Level
	3-1-5	Fluid Machinery V	Room F, Concourse Level
	4-1-4	Fluid Measurements and Instrumentation - Applications	Room G, Concourse Level
	3-6-3	Industrial Fluid Mechanics III	Room L, Concourse Level
	2-2-2	CFD Development II	Room M, Concourse Level
	1-13-1	Boundary Layer Flows	Room N, Concourse Level
	2-3-2	Methods and Model Development	Room O, Concourse Level
3:30PM - 3:45PM		Coffee Break	Grand Ballroom Foyer, Street Level
3:45PM - 5:45PM		**Technical Sessions**	
	3-2-14	Basic Studies	Seacliff A, Bay Level
	5-13-3	Modeling of Multiphase Flows in Petroleum Engineering	Seacliff B, Bay Level
	2-1-4	Applied CFD IV	Seacliff C, Bay Level
	6-7-1	Digital Microfluidics	Seacliff D, Bay Level
	3-8-1	Multiphase Flow Applications I	Room D, Concourse Level
	2-4-1	Methods and Applications	Room E, Concourse Level
	1-11-1	Transport Phenomena in Mixing	Room F, Concourse Level
	3-6-4	Industrial Fluid Mechanics IV	Room G, Concourse Level
	1-2-1	Aerospace	Room L, Concourse Level
	2-6-1	Computational Marine Hydrodynamics	Room M, Concourse Level
	2-3-3	Boundary Layers and Internal Flows	Room N, Concourse Level
	6-1-2	Modelling in Microfluids	Room O, Concourse Level

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TABLE TOP EXHIBIT

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Notes

Notes

SAVE THE DATE

ASME Fluids Engineering, Heat Transfer & Nanochannels, Microchannels and Minichannels Conferences

Date: July 12 — 16, 2020
Rosen Shingle Creek, Orlando, FL

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