

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



SUNDAY, JULY 28 SESSION # **EVENT** LOCATION TIME 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 Grand Ballroom A, Street Level **Plenary Session** 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 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 Room E, Concourse Level 4-2-1 Noninvasive Measurements in Single & Multiphase 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 Room M, Concourse Level Capillary Flow 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)

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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, Ba

Golden Gate Room, Bay Level

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	

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

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

330AM - E30PM Registration Registration Registration 730AM - E30PM Exhibits Crand Ballicom Ryes, Steet Level 730AM - E30PM Plenary Session Crand Ballicom A, Street Level 730AM - S45AM Plenary Session Crand Ballicom A, Street Level 730AM - S45AM Plenary Session Crand Ballicom A, Street Level 730AM - S45AM Plenary Session Crand Ballicom A, Street Level 730AM - S45AM Plenary Session Crand Ballicom A, Street Level 730AM - S45AM Cortee Tirens Grand Ballicom Ryer, Street Level 730AM - S45AM Cortee Tirens Grand Ballicom Ryer, Street Level 730AM - S45AM Cortee Tirens Grand Ballicom Ryer, Street Level 730AM - S45AM Cortee Tirens Grand Ballicom Ryer, Street Level 730AM - S45AM Cortee Tirens Grand Ballicom Ryer, Street Level 730AM - S45AM Cortee Tirens Grand Ballicom Ryer, Street Level 730AM - S45AM Cortee Tirens Grand Ballicom Ryer, Street Level 730AM - S45AM Cortee Tirens Grand Ballicom Ryer, Street Level 730AM - S45AM Cortee Tirens Grand Ballicom Ryer, Street Level 730AM - S45AM Cortee Tirens Grand Ballicom Ryer, Street Level 730AM - S45AM Cortee Tirens Grand Bal	WEDNESDAY, JULY 31			
230AH - 5:30PM Exhibits Grand Balroom Fayer, Steet Level 250AM - 8:00AM Pleak/fast Grand Balroom Fayer, Steet Level 250AM - 8:45AM Pleak/fast Grand Balroom Fayer, Steet Level Analysis and Design of Membraneticss Microfuldic Fuel Cells by Kwang Yong Kin, Inha University, South Korea Grand Balroom A, Street Level Development of Floating Type Orean Current Turbine for Kursehio Current by Masafumi Kawa, IHI Corporation, Japan Grand Balroom Fayer, Street Level Development of Floating Type Orean Current Turbine for Kursehio Current by Masafumi Kawa, IHI Corporation, Japan Grand Balroom Fayer, Street Level 000AM - 12:00PM MC Coffee Break Grand Balroom Fayer, Street Level 10:00AM - 10:00AM MC Coffee Break Grand Balroom Fayer, Street Level 10:00AM - 10:00AM MC Coffee Break Grand Balroom Fayer, Street Level 10:00AM - 10:00AM Coffee Break Grand Balroom Fayer, Street Level 10:00AM - 10:00AM Coffee Break Grand Balroom Fayer, Street Level 10:00AM - 10:00AM Coffee Break Grand Balroom Fayer, Street Level 10:00AM - 10:00AM Coffee Break Grand Balroom Fayer, Street Level 10:00AM - 10:00AM Sectiff B, Bay Level Sectiff B, Bay Level 10:00AM - 10:00AM Se	TIME	SESSION #	EVENT	LOCATION
P300AH - 8:00AM Breakfast Grand Balroom 8.8 C, Street Level 8:00AM - 8:45AM Plenary Session Grand Balroom A, Street Level Analysis and Design of Membraneless Microfluidic Fuel Cells by Kwang-Yong Kin, Inha University, South Korea Grand Balroom A, Street Level 0:00AM - 9:45AM Plenary Session Grand Balroom A, Street Level Development of Floating Type Occan Current Turbins for Karoshio Current by Misedrum Kawal, Hel Corporation, Joson Grand Balroom Fayer, Street Level 0:00AM - 10:00AM Coffee Break Grand Balroom Fayer, Street Level 0:00AM - 10:00AM Technical Session Secciff A, Bay Level 2:9-1 Technical Gesion Secciff A, Bay Level 2:9-1 Emerging CPD Methods Secciff A, Bay Level 2:9-1 Computational Turbulent Combustion Boom F, Concourse Level 2:9-1 Computational Turbulent Combustion Boom F, Concourse Level 2:9-1 Computational Turbulent Combustion Boom F, Concourse Level 2:9-1 Applied CFD II Boom F, Concourse Level 2:9-1 Applied CFD II Boom F, Concourse Level 2:9-2 Biological Applications Room N, Concourse Level 2:9-1 Modelling & Simulation in furtheful Incoffuidies Room N, Concourse Level 2:9-2 Biological Applications Room N, Concourse Level <td>7:30AM - 5:30PM</td> <td></td> <td>Registration</td> <td>Regency A, Street Level</td>	7:30AM - 5:30PM		Registration	Regency A, Street Level
Broad Plenary Session Grand Ballroom A, Street Level Analysis and Design of Membraneless Microfluidic Erul Cells by Wang-Yong Kin, Inha University, South Korea Grand Ballroom A, Street Level 9:00AM - 9:45AM Plenary Session Grand Ballroom A, Street Level 9:00AM - 9:45AM Cofree Break Grand Ballroom Foyer, Street Level 9:45AM - 10:00AM Cofree Break Grand Ballroom Foyer, Street Level 9:00AM - 12:00PM Technical Sessions Seacliff A, Bay Level 9:2-7 Cavitation Seacliff A, Bay Level 9:2-9.1 Emerging CPD Methods Seacliff D, Bay Level 9:2-9.1 Emerging CPD Methods Seacliff D, Bay Level 9:2-14 Computational Turbulent Combustion Room D, Concourse Level 9:2-14 Computational Turbulent Combustion Room C, Concourse Level 9:2-14 Applied CFD II Room C, Concourse Level 9:2-14 Applied CFD II Room C, Concourse Level 9:2-14 Computation in Microfluidics Room C, Concourse Level 11:10 CFD In Medicine and Dio Systems I Room C, Concourse Level 12:10 Cofroli interfacial Matchinery I	7:30AM - 5:30PM		Exhibits	Grand Ballroom Foyer, Steet Level
Analysis and Design of Membraneless Microfluidic Fuci Cells by Kwary-Yong Kin, Inha University, South Korea Grand Baltroom A, Street Level B:00AM - 9:45AM Plenary Session Grand Baltroom A, Street Level B:45AM - 10:00AM Coffee Break Grand Baltroom Foyer, Street Level B:45AM - 10:00AM Coffee Break Grand Baltroom Foyer, Street Level B:45AM - 10:00AM Coffee Break Golden Gate Room, Bay Level B:45AM - 10:00AM Technical Sessions Seaciff B, Bay Level B:45AM - 10:00AM Technical Sessions Seaciff D, Bay Level B:45AM - 10:00AM Seaciff C, Bay Level Seaciff C, Bay Level B:45AM - 10:00AM Seaciff C, Bay Level Seaciff C, Bay Level B:45AM - 10:00AM Seaciff C, Bay Level Seaciff C, Bay Level B:45AM - 10:00AM Combustion I Seaciff C, Bay Level B:45AM - 10:00AM Combustion I Room F, Concourse Level B:45AM - 10:00AM Room F, Concourse Level Seaciff C, Bay Level B:45AM - 10:00BM Room G, Concourse Level Seaciff C, Bay Level B:45AM - 10:00BM Room G, Concourse Level Seaciff C, Bay Level B:45AM - 10:00BM Exercite Meeting (Closed Door) Boylew A, Bay Level B:20AM - 1:30PM Exercite Meeting (Closed Door) Seaciff C, Bay Level B:20AM - 1:30PM<	7:30AM - 8:00AM		Breakfast	Grand Ballroom B & C, Street Level
by Kwarg-Yong Kin, Inha University, South Korea Grand Balfroom A, Steel Level BoodAn 9-945AM Pienary Session Grand Balfroom A, Steel Level Britshon Current by Masafumi Kawal, Hill Corporation, Japan Steal Grand Balfroom Fore, Street Level Britshon Current by Masafumi Kawal, Hill Corporation, Japan Grand Balfroom Fore, Street Level Grand Balfroom Fore, Street Level BroodAN 11000AM Coffee Brook Grand Balfroom Fore, Street Level BroodAN 1200PM Technical Street Street IIII (A) Bay Level BroodAN 1200PM Technical Street Street IIII (A) Bay Level BroodAN 1200PM Street IIII (A) Bay Level Street IIII (A) Bay Level BroodAN 1200PM Street IIII (A) Bay Level Street IIII (A) Bay Level BroodAN 1200PM Grand Balfrood (A) Bay Level Street IIIII (A) Bay Level BroodAN 1200PM Computational Turbulent Combustion Room F, Concourse Level Brood (B) Bay Bay Level Street IIII (B) Advinary I Room F, Concourse Level Brood (B) Advinary S Struet IIII (B) Advinary S Struct IIII (B) Advinary S Struct IIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIII	8:00AM - 8:45AM		Plenary Session	Grand Ballroom A, Street Level
BacodAM - 9:45AM Piceary Session Grand Ballroom A, Street Level Development of Floating Type Ocean Current Turbine for Kuroshio Current by Masafumi Kawai, IHI Corporation, Japan Grand Ballroom Foyer, Street Level 8:45AM - 10.00AM Coffee Break Grand Ballroom Foyer, Street Level 10:00AM - 11.00AM MFTC Meeting (Open to public) Galden Gate Room, Bay Level 10:00AM - 12:00PM Technical Sessions Seaciff A, Bay Level 3:10-4 Rotating Machinery IV Seaciff C, Bay Level 3:10-4 Rotating Machinery IV Seaciff C, Bay Level 3:10-4 Rotating Machinery IV Seaciff C, Bay Level 2:7-1 Computational Turbulent Combustion Room F, Concourse Level 2:1-2 Applied CFD II Room F, Concourse Level 3:1-1 Fluid Machinery I Room F, Concourse Level 2:1-2 Applied CFD II Room M, Concourse Level 2:1-1 Modelling & Simulation in Microfluidics Room M, Concourse Level 2:1-2 Biological Applications Room M, Concourse Level 2:1-1 Modelling & Simulation in Microfluidics Room M, Concourse Level 2:2-2 Biologic			Analysis and Design of Membraneless Microfluidic Fuel Cells	
Development of Hoating Type Ocean Current Turbine for Kurdship Current by Masafumi Kawai, I-HI Corporation, Japan 845AM 10:0DAM Coffee Break Grand Balincom Foyer, Street Level 00:0DAM + 10:0DAM METC Meeting (Open to public) Golden Gate Room, Bay Level 10:0DAM + 10:0DAM Technical Sessions Seachtf A, Bay Level 3:2-7 Cavitation Seachtf A, Bay Level 3:10-4 Rotating Machinery IV Seachtf C, Bay Level 3:10-4 Rotating Machinery IV Seachtf D, Bay Level 3:4-1 Combustion I Seachtf D, Bay Level 3:4-1 Combustion I Seachtf D, Bay Level 2:4-2 Applied CFD II Room D, Concourse Level 3:4-1 Fluid Machinery I Room F, Concourse Level 3:4-1 Fluid Machinery I Room L, Concourse Level 3:4-1 Fluid Machinery I Room C, Concourse Level 4:11 CFD In Medicine and Bio-Systems I Room L, Concourse Level 2:5-2 Biological Applications Room D, Concourse Level 4:5-1 Room S, Concourse Level Room S, Concourse Level 2:20PM - 130PM Lunch (Gn your ow				
Kurashio Current by Masarumi Kawai, IHI Corporation, Japan 845AM 10:00AM Corde Breek Grand Ballroom Foyer, Street Level 00:00AM 11:00AM MFTC Meeting (Open to public) Golden Gate Room, Bay Level 00:00AM 12:00PM Technical Sessions Seacilf A, Bay Level 3:0-1 Cavitation Seacilf D, Bay Level 3:0-10 Cavitation Altring Machinery IV Seacilf D, Bay Level 3:0-11 Combustion 1 Seacilf D, Bay Level 2:1-2 Applied CFD II Room E, Concourse Level 3:1-1 Huid Machinery I Room E, Concourse Level 3:1-1 Kind Machinery I Room E, Concourse Level 3:1-2	9:00AM - 9:45AM			Grand Ballroom A, Street Level
0000AM - 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 D, Bay Level 3:10-4 Rotating Machinery IV Seacliff D, Bay Level 3:41 Combustion I Seacliff D, Bay Level 2:41 Computational Turbulent Combustion Room D, Concourse Level 2:42 Applied CFD II Room F, Concourse Level 3:4.1 Fluid Machinery IV Room F, Concourse Level 3:4.1 Fluid Machinery I Room F, Concourse Level 4:1.1 Modelling A, Simulation in Microfluidics Room F, Concourse Level 4:1.1 Modelling A, Simulation in Microfluidics Room K, Concourse Level 2:1.2 Applications Room M, Concourse Level 2:3.1 Biological Applications Room M, Concourse Level 1:3.1 Session 1 Room N, Concourse Level 1:3.1 Session 1 Room M, Concourse Level 1:3.2 Session 1 Room M, Concourse Level 1:3.1 Session 1 Room M, Concourse Level 1:3.2 Computational Interfacial Methods Seacliff A, Bay Level 1:3.2 Computational Interfacial Methods				
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 3-41 Combustion I Seacliff C, Bay Level 3-42 Computational Turbulent Combustion Room D, Concourse Level 2-12 Applied CFD II Room F, Concourse Level 3-14 Fluid Machinery I Room F, Concourse Level 3-14 Fluid Machinery I Room G, Concourse Level 3-14 Fluid Machinery I Room M, Concourse Level 3-14 Fluid Machinery I Room M, Concourse Level 2-15 Biological Applications Room M, Concourse Level 2-5-2 Biological Applications Room M, Concourse Level 12:00PM - 130PM Lunch (On your own) Lunch (On your own) 12:00PM - 130PM A Lunch Meeting (Clesed Door) Baytew A, Bay Level 13:0-5 Rotating Machinery V - Turbines Seacliff A, Bay Level 14:1 Computational Interfacial Methods Seacliff A, Bay Level	9:45AM - 10:00AM		Coffee Break	Grand Ballroom Foyer, Street Level
3-2-7CavitationSeacliff A, Bay Level2-9-1Emerging CFD MethodsSeacliff B, Bay Level3-0-4Rotating Machinery IVSeacliff C, Bay Level3-0-4Combustion ISeacliff C, Bay Level3-0-4Combustion ISeacliff C, Bay Level3-0-4Computational Turbulent CombustionRoom E, Concourse Level2-1-2Applied CFD IIRoom E, Concourse Level3-14Fluid Machinery IRoom E, Concourse Level3-14Fluid Machinery IRoom E, Concourse Level3-14Fluid Machinery IRoom D, Concourse Level2-15Biological ApplicationsRoom N, Concourse Level2-16Biological ApplicationsRoom N, Concourse Level2-17Euroch Meeting (Closed Door)Baytew A, Bay Level2-20PM - 130PMTechnical SessionsSeacliff B, Bay Level2-300PM - 130PMTechnical SessionsSeacliff B, Bay Level2-300PM - 130PMTechnical SessionsSeacliff B, Bay Level2-300PM - 130PMTechnical SessionsSeacliff C, Bay Level2-300PM - 130PMTechnical SessionsSeacliff C, Bay Level2-31-1Computational Interfacial MethodsSeacliff B, Bay Level3-30-2InducersSeacliff D, Bay Level3-14Session IRoom D, Concourse Level <t< td=""><td>10:00AM - 11:00AM</td><td></td><td>MFTC Meeting (Open to public)</td><td>Golden Gate Room, Bay Level</td></t<>	10:00AM - 11:00AM		MFTC Meeting (Open to public)	Golden Gate Room, Bay Level
2-9-1Emerging CFD MethodsSeacliff B, By Level3-10-4Rotating Machinery IVSeacliff C, Bay Level3-4.1Combustion ISeacliff D, Bay Level3-4.1Computational Turbulent CombustionRoom D, Concourse Level2-1.2Applied CFD IIRoom E, Concourse Level3-1.4Fluid Machinery IRoom F, Concourse Level3-1.4Fluid Machinery IRoom G, Concourse Level3-1.4Fluid Machinery IRoom G, Concourse Level3-1.4GFD in Medicine and Bio-Systems IRoom G, Concourse Level2-5.2Biological ApplicationsRoom M, Concourse Level3-3.4BiomicrafluidicsRoom M, Concourse Level3-3.4BiomicrafluidicsRoom O, Concourse Level3-3.4BiomicrafluidicsRoom M, Concourse Level3-3.4BiomicrafluidicsRoom M, Concourse Level3-3.4BiomicrafluidicsRoom M, Concourse Level2-5.2Biological ApplicationsRoom M, Concourse Level2-5.4Naturent M, Consourse LevelRoom M, Concourse Level2-5.4Naturent M, Carcourse LevelRoom M, Concourse Level2-200PM - 130PMA Eduting Machinery V - TurbinesSeacliff A, Bay Level3-1.4Combustion II Interfacial MethodsSeacliff D, Bay Level3-1.4Combustion IIRoom D, Concourse Level3-1.4Seasion 1Room D, Concourse Level3-1.4Combustion IIRoom C, Concourse Level3-1.4Seasion 1Room D, Concourse Level3-1.4Seasio	10:00AM - 12:00PM		Technical Sessions	
3:10-4Rotating Machinery IVSeacilif C, Bay Level3:4-1Combustion ISeacilif D, Bay Level2:7-1Computational Turbulent CombustionRoom D, Concourse Level2:1-2Applied CFD IIRoom F, Concourse Level3:1-1Fluid Machinery IRoom F, Concourse Level6:1-1Modelling & Simulation in MicrofluidicsRoom G, Concourse Level2:1-2Biological ApplicationsRoom L, Concourse Level2:1-1CFD in Medicine and Bio-Systems IRoom L, Concourse Level6:3-1BiomicrofluidicsRoom N, Concourse Level6:3-1BiomicrofluidicsRoom N, Concourse Level1:3-1Session IRoom O, Concourse Level1:2:00PM - 1:30PMAE Lunch Meeting (Closed Door)Bayview A, Bay Level1:2:00PM - 1:30PMAE Lunch Meeting (Closed Door)Bayview A, Bay Level1:2:00PM - 1:30PMComputational Interfacial MethodsSeacilif A, Bay Level1:2:00PM - 1:30PMComputational Interfacial MethodsSeacilif B, Bay Level1:2:00PM - 1:30PMComputational Interfacial MethodsSeacilif C, Bay Level1:2:0Combustion II<		3-2-7	Cavitation	Seacliff A, Bay Level
3-4.1Combustion ISeacliff D, Bay Level2-7.1Computational Turbulent CombustionRoom D, Concourse Level2-1.2Applied CFD IIRoom E, Concourse Level3-1.1Fluid Machinery IRoom F, Concourse Level3-1.1Fluid Machinery IRoom F, Concourse Level6-1.1Modelling & Simulation in MicrofluidicsRoom G, Concourse Level2-1.2Biological ApplicationsRoom N, Concourse Level2-5.2Biological ApplicationsRoom N, Concourse Level6-3.1BiomicrofluidicsRoom N, Concourse Level13-1Session IRoom O, Concourse Level12:00PM - 1:30PMAE Lunch Meeting (Closed Door)Bayview A, Bay Level13-1SessionsSeacliff A, Bay Level13-1SessionsSeacliff D, Bay Level13-1SessionsSeacliff D, Bay Level14:00PM - 1:30PMTechnical SessionsSeacliff D, Bay Level15:00 M - 1:30PMTechnical SessionsSeacliff D, Bay Level14:10Computational Interfacial MethodsSeacliff D, Bay Level14:11Session 1Room D, Concourse Level14:12Combustion IISeacliff D, Bay Level14:13Applied CFD IIIRoom D, Concourse Level14:14Session 1Room F, Concourse Level14:14Fluid Meesurements and Instrumentation- Jets and SpraysRoom G, Concourse Level14:14Fluid Meesurements and Instrumentation- Jets and SpraysRoom C, Concourse Level14:15Nevel Techniques and Uncertainty Quantification <td></td> <td>2-9-1</td> <td>Emerging CFD Methods</td> <td>Seacliff B, Bay Level</td>		2-9-1	Emerging CFD Methods	Seacliff B, Bay Level
2-7-1Computational Turbulent CombustionRoom D, Concourse Level2-1-2Applied CFD IIRoom E, Concourse Level3-1-1Fluid Machinery IRoom F, Concourse Level6-1-1Modelling & Simulation in MicrofluidicsRoom G, Concourse Level2-11CFD in Medicine and Bio-Systems IRoom M, Concourse Level2-5-2Biological ApplicationsRoom N, Concourse Level6-3-1BiomicrofluidicsRoom N, Concourse Level1-3-1Session IRoom O, Concourse Level12:00PM - 1:30PMLunch (On your own)12:00PM - 1:30PMAE Lunch Meeting (Closed Door)Bayview A, Bay Level13:00PM - 1:30PM3-2-8InducersSeacliff A, Bay Level13:00PM - 1:30PMComputational Interfacial MethodsSeacliff B, Bay Level14:00PM - 1:30PMSeacliff D, Bay Level3-1-514:00PM - 1:30PMComputational Interfacial MethodsSeacliff D, Bay Level14:00PM - 1:30PMComputational Interfacial MethodsSeacliff D, Bay Level14:00PM - 1:30PMSeacliff D, Bay Level3-1-514:00PM - 1:30PMComputational Interfacial MethodsSeacliff D, Bay Level14:00PM - 1:30PMComputational Interfacial MethodsSeacliff D, Bay Level14:00PM - 1:30PMSeacliff D, Bay Level3-1-514:00PM - 1:30PMComputational Interfacial MethodsSeacliff D, Bay Level15:01PM - 1:30PMComputational Interfacial MethodsSeacliff D, Bay Level14:10PM - 1:30PMComputational Interfacial MethodsSeacliff D, Bay Level<		3-10-4	Rotating Machinery IV	Seacliff C, Bay Level
21-2Applied CFD IIRoom E, Concourse Level31-1Fluid Machinery IRoom F, Concourse Level6-1.1Modelling & Simulation in MicrofluidicsRoom G, Concourse Level2-11.1CFD in Medicine and Bio-Systems IRoom M, Concourse Level2-5.2Biological ApplicationsRoom M, Concourse Level6-3.1BiomicrofluidicsRoom O, Concourse Level1-3.1Session IRoom O, Concourse Level12:00PM - 1:30PMLunch (On your own)Bayview A, Bay Level12:00PM - 1:30PMAE Lunch Meeting (Closed Door)Bayview A, Bay Level13:00PM - 1:30PMTechnical SessionsSeacliff A, Bay Level13:00PM - 1:30PMSeacliff A, Bay LevelSeacliff A, Bay Level14:00PM - 1:30PMSeacliff A, Bay LevelSeacliff A, Bay Level14:00PM - 1:30PMSeacliff A, Bay LevelSeacliff A, Bay Level14:00PM - 1:30PMSeacliff D, Bay LevelSeacliff D, Bay Level14:00PM - 1:30PMSeacliff D, Bay LevelSeacliff D, Bay Level14:00PM - 1:30PMSeacliff D, Bay LevelSeacliff D, Bay Level14:00PM - 1:30PMComputational Interfacial MethodsSeacliff D, Bay Level14:00PM - 1:30PMSeacliff D, Bay LevelSeacliff D, Bay Level14:00PM - 1:30PMSeacliff D, Bay LevelSeacliff D, Bay Level15:01PM - 1:30PMComputational Interfacial MethodsSeacliff D, Bay Level14:02PM - 1:30PMSeacliff D, Bay LevelSeacliff D, Bay Level14:10PM - 1:30PMSeacliff D, Bay LevelSeacliff D, Bay Level		3-4-1	Combustion I	Seacliff D, Bay Level
1-10Fluid Machinery IRoom F, Concourse Level6-1-1Modelling & Simulation in MicrofluidicsRoom G, Concourse Level2-11CFD in Medicine and Bio-Systems IRoom L, Concourse Level2-5-2Biological ApplicationsRoom N, Concourse Level6-3-1BiomicrofluidicsRoom N, Concourse Level1-3-1Session IRoom O, Concourse Level1-3-1Session IRoom O, Concourse Level12:00PM - 1:30PMLunch (On your own)12:00PM - 1:30PMAE Lunch Meeting (Closed Door)Bayview A, Bay Level1-30AM - 3:30PMTechnical Sessions3-2-8InducersSeacliff A, Bay Level3-2-8InducersSeacliff C, Bay Level3-10-5Rotating Machinery V - TurbinesSeacliff D, Bay Level3-14-1Computational Interfacial MethodsSeacliff D, Bay Level3-14-2Combustion IIRoom E, Concourse Level1-4-1Session 1Room D, Concourse Level1-4-1Session 1Room C, Concourse Level1-4-2Fluid Machinery IIRoom E, Concourse Level1-4-3Applied CFD IIIRoom E, Concourse Level1-14Fluid Meahinery IIRoom C, Concourse Level1-15New Methods and IBM ApplicationsRoom M, Concourse Level1-16Liuid Measurements and Instrumentation- Jets and SpraysRoom C, Concourse Level1-16CFD In Medicine and Bio-Systems IIRoom M, Concourse Level1-17Fluid Measurements and InstrumentationsRoom M, Concourse Level1-18 </td <td></td> <td>2-7-1</td> <td>Computational Turbulent Combustion</td> <td>Room D, Concourse Level</td>		2-7-1	Computational Turbulent Combustion	Room D, Concourse Level
6-1-1Modelling & Simulation in MicrofluidicsRoom G, Concourse Level2-11CFD in Medicine and Bio-Systems IRoom L, Concourse Level2-5-2Biological ApplicationsRoom M, Concourse Level6-3.1BiomicrofluidicsRoom N, Concourse Level1-3.1Session IRoom O, Concourse Level12:00PM - 1:30PMLunch (On your own)Bayview A, Bay Level12:00PM - 1:30PMAE Lunch Meeting (Closed Door)Bayview A, Bay Level12:00PM - 1:30PMTechnical SessionsSeacliff A, Bay Level13:0Seasion I Interfacial MethodsSeacliff B, Bay Level13:0Rotating Machinery V - TurbinesSeacliff D, Bay Level14:1Session ISeacliff D, Bay Level14:1Session IRoom D, Concourse Level14:1Session IRoom D, Concourse Level14:1Session IRoom D, Concourse Level14:1Session IRoom D, Concourse Level14:1Session IRoom C, Concourse Level14:1Session IRoom C, Concourse Level14:1Fluid Machinery IIRoom C, Concourse Level14:1Fluid Measurements and Instrumentation-Jets and SpraysRoom G, Concourse Level14:1CFD in Medicine and Bio-Systems IIRoom M, Concourse Level15:1Novel Techniques and Uncertainty Quantification in Fluids MechanicsRoom N, Concourse Level15:2Session 2Room M, Concourse Level		2-1-2	Applied CFD II	Room E, Concourse Level
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6-3-1BiomicrofluidicsRoom N, Concourse Level1-3-1Session IRoom O, Concourse Level12:00PM - 1:30PMLunch (On your own)Bayview A, Bay Level12:00PM - 1:30PMAE Lunch Meeting (Closed Door)Bayview A, Bay Level12:00PM - 1:30PMTechnical SessionsSeacliff A, Bay Level1:30AM - 3:30PMTechnical SessionsSeacliff A, Bay Level3:2-8InducersSeacliff C, Bay Level3:10-5Rotating Machinery V - TurbinesSeacliff C, Bay Level3:4-2Computational Interfacial MethodsSeacliff D, Bay Level1:4-1Session 1Seacliff D, Bay Level1:4-1Session 1Room D, Concourse Level1:4-1Session 1Room E, Concourse Level1:4-1Session 1Room F, Concourse Level1:4-1Session 1Room F, Concourse Level1:4-1Fluid Machinery IIRoom F, Concourse Level1:4-1Fluid Measurements and Instrumentation- Jets and SpraysRoom G, Concourse Level1:1-2CFD in Medicine and Bio-Systems IIRoom N, Concourse Level1:1-2Novel Techniques and Uncertainty Quantification in Fluids MechanicsRoom N, Concourse Level1:3-1Novel Techniques and Uncertainty Quantification in Fluids MechanicsRoom O, Concourse Level		2-11-1	CFD in Medicine and Bio-Systems I	Room L, Concourse Level
1-3-1Session IRoom O, Concourse Level12:00PM - 1:30PMLunch (On your own)Bayview A, Bay Level12:00PM - 1:30PMAE Lunch Meeting (Closed Door)Bayview A, Bay Level12:00PM - 3:30PMTechnical SessionsSeacliff A, Bay Level13:04 - 3:30PMSeacliff A, Bay LevelSeacliff B, Bay Level14:04Serview A, Bay LevelSeacliff B, Bay Level14:05Rotating Machinery V - TurbinesSeacliff C, Bay Level14:04Session IISeacliff D, Bay Level14:14Session 1Room D, Concourse Level14:14Session 1Room E, Concourse Level14:15Fluid Machinery IIRoom F, Concourse Level14:14Fluid Measurements and Instrumentation - Jets and SpraysRoom G, Concourse Level14:15CFD in Medicine and Bio-Systems IIRoom M, Concourse Level14:16Neve Methods and IBM ApplicationsRoom M, Concourse Level14:17Novel Techniques and Uncertainty Quantification in Fluids MechanicsRoom N, Concourse Level14:17Session 2Session 2Room N, Concourse Level		2-5-2	Biological Applications	Room M, Concourse Level
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Technical Sessions1:30AM - 3:30PMTechnical Sessions3-2-8InducersSeacliff A, Bay Level5-1.1Computational Interfacial MethodsSeacliff B, Bay Level3-10-5Rotating Machinery V - TurbinesSeacliff D, Bay Level3-4.2Combustion IISeacliff D, Bay Level1-4.1Session 1Room D, Concourse Level2-1-3Applied CFD IIIRoom E, Concourse Level3-1.2Fluid Machinery IIRoom F, Concourse Level4-1.1Fluid Measurements and Instrumentation- Jets and SpraysRoom G, Concourse Level2-15-3New Methods and IBM ApplicationsRoom M, Concourse Level4-5.1Novel Techniques and Uncertainty Quantification in Fluids MechanicsRoom N, Concourse Level1-3-2Session 2Room O, Concourse Level	12:00PM - 1:30PM		Lunch (On your own)	
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5-14Computational Interfacial MethodsSeacliff B, Bay Level3-10-5Rotating Machinery V - TurbinesSeacliff C, Bay Level3-4-2Combustion IISeacliff D, Bay Level1-4-1Session 1Room D, Concourse Level2-1-3Applied CFD IIIRoom E, Concourse Level3-1-2Fluid Machinery IIRoom F, Concourse Level3-1-2Fluid Measurements and Instrumentation- Jets and SpraysRoom G, Concourse Level2-11-2CFD in Medicine and Bio-Systems IIRoom L, Concourse Level2-5-3New Methods and IBM ApplicationsRoom N, Concourse Level4-5-1Novel Techniques and Uncertainty Quantification in Fluids MechanicsRoom O, Concourse Level1-3-2Session 2Room O, Concourse Level	1:30AM - 3:30PM		Technical Sessions	
3-10-5Rotating Machinery V - TurbinesSeacliff C, Bay Level3-4-2Combustion IISeacliff D, Bay Level1-4-1Session 1Room D, Concourse Level1-4-1Session 1Room E, Concourse Level2-1-3Applied CFD IIIRoom F, Concourse Level3-1-2Fluid Machinery IIRoom F, Concourse Level4-11Fluid Measurements and Instrumentation- Jets and SpraysRoom G, Concourse Level2-11-2CFD in Medicine and Bio-Systems IIRoom L, Concourse Level2-5-3New Methods and IBM ApplicationsRoom M, Concourse Level4-5-1Novel Techniques and Uncertainty Quantification in Fluids MechanicsRoom O, Concourse Level1-3-2Session 2Room O, Concourse Level		3-2-8	Inducers	Seacliff A, Bay Level
3-4-2Combustion IISeacliff D, Bay Level1-4.1Session 1Room D, Concourse Level2-1-3Applied CFD IIIRoom E, Concourse Level3-1-2Fluid Machinery IIRoom F, Concourse Level4-1.1Fluid Measurements and Instrumentation- Jets and SpraysRoom G, Concourse Level2-11-2CFD in Medicine and Bio-Systems IIRoom L, Concourse Level2-5-3New Methods and IBM ApplicationsRoom M, Concourse Level4-5-1Novel Techniques and Uncertainty Quantification in Fluids MechanicsRoom O, Concourse Level1-3-2Session 2Room O, Concourse Level		5-1-1	Computational Interfacial Methods	Seacliff B, Bay Level
1-4-1Session 1Room D, Concourse Level2-1-3Applied CFD IIIRoom E, Concourse Level3-1-2Fluid Machinery IIRoom F, Concourse Level4-11Fluid Measurements and Instrumentation- Jets and SpraysRoom G, Concourse Level2-11-2CFD in Medicine and Bio-Systems IIRoom L, Concourse Level2-5-3New Methods and IBM ApplicationsRoom M, Concourse Level4-5-1Novel Techniques and Uncertainty Quantification in Fluids MechanicsRoom O, Concourse Level1-3-2Session 2Room O, Concourse Level		3-10-5	Rotating Machinery V - Turbines	Seacliff C, Bay Level
21-3Applied CFD IIIRoom E, Concourse Level3-1-2Fluid Machinery IIRoom F, Concourse Level4-1-1Fluid Measurements and Instrumentation- Jets and SpraysRoom G, Concourse Level2-11-2CFD in Medicine and Bio-Systems IIRoom L, Concourse Level2-5-3New Methods and IBM ApplicationsRoom M, Concourse Level4-5-1Novel Techniques and Uncertainty Quantification in Fluids MechanicsRoom O, Concourse Level1-3-2Session 2Room O, Concourse Level		3-4-2	Combustion II	Seacliff D, Bay Level
3.1-2Fluid Machinery IIRoom F, Concourse Level4.1Fluid Measurements and Instrumentation- Jets and SpraysRoom G, Concourse Level2.11-2CFD in Medicine and Bio-Systems IIRoom L, Concourse Level2-5-3New Methods and IBM ApplicationsRoom M, Concourse Level4-5-1Novel Techniques and Uncertainty Quantification in Fluids MechanicsRoom O, Concourse Level1-3-2Session 2Room O, Concourse Level		1-4-1	Session 1	Room D, Concourse Level
4.1.1Fluid Measurements and Instrumentation- Jets and SpraysRoom G, Concourse Level2-11-2CFD in Medicine and Bio-Systems IIRoom L, Concourse Level2-5-3New Methods and IBM ApplicationsRoom M, Concourse Level4-5-1Novel Techniques and Uncertainty Quantification in Fluids MechanicsRoom O, Concourse Level1-3-2Session 2Room O, Concourse Level		2-1-3	Applied CFD III	Room E, Concourse Level
2-11-2CFD in Medicine and Bio-Systems IIRoom L, Concourse Level2-5-3New Methods and IBM ApplicationsRoom M, Concourse Level4-5-1Novel Techniques and Uncertainty Quantification in Fluids MechanicsRoom N, Concourse Level1-3-2Session 2Room O, Concourse Level		3-1-2	Fluid Machinery II	Room F, Concourse Level
2-5-3New Methods and IBM ApplicationsRoom M, Concourse Level4-5-1Novel Techniques and Uncertainty Quantification in Fluids MechanicsRoom N, Concourse Level1-3-2Session 2Room O, Concourse Level		4-1-1	Fluid Measurements and Instrumentation- Jets and Sprays	Room G, Concourse Level
4-5-1Novel Techniques and Uncertainty Quantification in Fluids MechanicsRoom N, Concourse Level1-3-2Session 2Room O, Concourse Level		2-11-2	CFD in Medicine and Bio-Systems II	Room L, Concourse Level
in Fluids Mechanics 1-3-2 Session 2 Room O, Concourse Level		2-5-3	New Methods and IBM Applications	Room M, Concourse Level
		4-5-1		Room N, Concourse Level
3:30PM - 3:45PM Coffee Break Grand Ballroom Foyer, Street Leve		1-3-2	Session 2	Room O, Concourse Level
	3:30PM - 3:45PM		Coffee Break	Grand Ballroom Foyer, Street Level

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

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	Seacliff B, Bay Level
		Engineering	
	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
	2-6-1 2-3-3	Computational Marine Hydrodynamics Boundary Layers and Internal Flows	Room M, Concourse Level Room N, Concourse Level



DR. MALCOLM J. ANDREWS TRACK



SILVER





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UNDERSTANDING, ACCELERATED





TABLE TOP EXHIBIT





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

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

