



ASME® 2019 AJK

ASME - JSME - KSME
Joint Fluids Engineering conference

CONFERENCE
Jul 28 – Aug 1, 2019

EXHIBITION
Jul 29 – Jul 31, 2019

Hyatt Regency (Downtown),
San Francisco, CA

<https://event.asme.org/AJKFluids>

ABSTRACT SUBMISSION DEADLINE: December 04, 2018

The ASME Fluids Engineering Division (FED) cordially invites you to participate in their upcoming Joint Summer Conference with the Japanese Society of Mechanical Engineers and the Korean Society of Mechanical Engineers (AJK2019) in San Francisco, California, USA. The AJK2019 program includes technical paper sessions, panel sessions, workshops, plenary lectures, graduate student scholarship competition, flow visualization competition, committee meetings, and social networking events. AJK2019 solicits paper contributions from all areas of fluids mechanics, encompassing both fundamental and application. The tracks/topics covered during this event include, *but are not limited to*, the following:

1) Fluid Mechanics (FMTC) Track

- Topic 1-1 Fluids Engineering Education
- Topic 1-2 Aerospace
- Topic 1-3 Fluid Power
- Topic 1-4 Bio-Inspired and Biomedical Fluid Mechanics
- Topic 1-5 Turbulent Flows
- Topic 1-6 Flow Manipulation
- Topic 1-7 Active Flow Control
- Topic 1-8 Active Fluids
- Topic 1-9 Transport Phenomena in Energy Conversion
- Topic 1-10 Manufacturing Process
- Topic 1-11 Transport Phenomena in Mixing
- Topic 1-12 CFD Verification and Validation
- Topic 1-13 Boundary Layer Flows
- Topic 1-14 High-Speed Flows
- Topic 1-15 Vortex Dynamics
- Topic 1-16 Graduate Students Scholarship

2) Computational Fluid Dynamics (CFDTC) Track

- Topic 2-1 Applied CFD
- Topic 2-2 CFD Development
- Topic 2-3 LES/DNS
- Topic 2-4 Hybrid LES/RANS
- Topic 2-5 Fluid Structure Interaction (including IBM)
- Topic 2-6 Computational Marine Hydrodynamics
- Topic 2-7 Computational Turbulent Combustion
- Topic 2-8 Optimization, Data-based Simulations, and Machine Learning
- Topic 2-9 Emerging CFD Topics
- Topic 2-10 Open Source CFD Applications
- Topic 2-11 Medical Applications of CFD
- Topic 2-12 Multi-physics Simulation
- Topic 2-13 Graduate Students Scholarship

3) Fluid Applications & Systems (FASTC) Track

- Topic 3-1 Fluid Machinery Symposium
- Topic 3-2 Pumping Machinery Symposium
- Topic 3-3 Automotive flows
- Topic 3-4 Combustion
- Topic 3-5 Environmental Flows
- Topic 3-6 Industrial Fluid Mechanics
- Topic 3-7 Fluid Power Systems
- Topic 3-8 Multiphase Flow Applications
- Topic 3-9 Propulsion
- Topic 3-10 Rotating machinery / Turbomachinery
- Topic 3-11 Graduate Students Scholarship

4) Fluid Measurement & Instrumentation (FMITC) Track

- Topic 4-1 Fluid Measurement and Instrumentation
- Topic 4-2 Noninvasive Measurements in Single and Multiphase Flows
- Topic 4-3 Fluid Dynamics of Wind Energy
- Topic 4-4 Uncertainty Quantification in Flow Measurements
- Topic 4-5 "Novel" Instrumentation Techniques in Fluid Mechanics
- Topic 4-6 Volumetric or Tomographic Techniques in Fluids Mechanics
- Topic 4-7 Data Processing / Algorithms in Fluid Measurements
- Topic 4-8 Experimental Facilities in Fluid Mechanics
- Topic 4-9 Graduate Students Scholarship

5) Multiphase Flow (MFTC) Track

Topic 5-1 Numerical methods for Multiphase Flows
Topic 5-2 Multiscale Methods for Multiphase Flows
Topic 5-3 Experimental Methods for Multiphase Flows
Topic 5-4 Cavitation
Topic 5-5 Gas-Liquid Flows
Topic 5-6 Liquid-Solid Flows
Topic 5-7 Gas-Solid Flows
Topic 5-8 Liquid-Liquid Flows

Topic 5-9 Bubble, Droplet, and aerosol Dynamics
Topic 5-10 Interfacial Phenomena (waves, free surface flows)
Topic 5-11 Erosion, slurry, sedimentation
Topic 5-12 Phase change
Topic 5-13 Multiphase Flows in Petroleum Engineering
Topic 5-14 Multiphase Flows in Nuclear Engineering
Topic 5-15 Compressible Multiphase Flows (Turbulent Mixing)
Topic 5-16 Graduate Students Scholarship

6) Micro & Nano Fluid Dynamics (MNFDT) Track

Topic 6-1 Modelling and Simulation in Microfluidics
Topic 6-2 Micro- and Nanoscale Thermofluidic Science and Devices
Topic 6-3 Biologically Enabled Microfluidics and Biomicrofluidics
Topic 6-4 Micro-Total-Analysis Systems (MicroTAS) and Lab-On-A-Chip Applications
Topic 6-5 Sensors and Transducers for Microfluidic Applications
Topic 6-6 Optics and Photonics in Micro- and Nano-Fluidic systems

Topic 6-7 Digital or Droplet Microfluidics
Topic 6-8 Micro/Nano Fabrication Techniques for Microfluidics System
Topic 6-9 Micro Fuel Cell and Micro/Nano Fluidic Based Energy Storage
Topic 6-10 Complex Fluids and Nano-Particles
Topic 6-11 Graduate Students Scholarship

To submit, please visit the conference website, <https://event.asme.org/AJKFluids>, and click on [Submit Abstract](#). If you have submitted to ASME conferences in the past, simply login with your credentials. If you are new, then please create a user account. After you have logged into the submission site, simply follow the instructions. **Please note, you need to select a technical track and a topic. You will then be asked to submit an abstract with between 400 to 600 words.**

Graduate students can also submit an abstract to the Graduate Student Scholarship Topic listed under the 6 technical tracks. The Graduate Students Steering Committee (GSSC) will evaluate the submitted papers and announce the scholarship awards during AJK2019.

Conference Venue

Experience the iconic Embarcadero waterfront from Hyatt Regency San Francisco. Featuring dramatic architecture, including the world's largest hotel lobby, and distinctive rooms with bay views, our hotel across from the Ferry Building is steps to the Financial District, Nob Hill, and San Francisco's vibrant cultural destinations.

[Hyatt Regency](#): 5 Embarcadero Center, San Francisco, CA 94111

Getting There By Air:

[SAN FRANCISCO INTERNATIONAL AIRPORT](#)

[OAKLAND INTERNATIONAL AIRPORT](#)

Distance to the Conference Venue

San Francisco International Airport (SFO): 15 miles (24 km)

Oakland International Airport (OAK): 20 miles (32 km)

Embarcadero BART Station: 0.1 miles (0.2 km)

Cable Car on Drumm and Market Streets: 0.1 miles (0.2 km)



Special Note on Journal Publication

Select conference papers will be recommended for publication in the ASME Journal of Fluids Engineering with an expedited review process.