Start	End	Monday, July 29, 2019	
8:00am	**8:30am**	**Registration and Breakfast**	
8:30am	**8:45am**	**Welcome**	
8:45am	**10:15am**	**Session 1A: Wings (Room A)**	**Session 1B: Model Development (Room B)**
8:45am	*9:00am*	**1A.1 Pointer:** *Fine-Wire Sensor Calibration System for Low Velocity Flows at Stratospheric Conditions*	**1B.1 Glusman:** *Initial Verification of a Reduced Combustion Model of Douglas Fir*
9:00am	*9:15am*	**1A.2 Gloutak:** *Influence of Surging Flow Frequency on Lift Coefficient for Finite Wings*	**1B.2 Mannan:** *Modeling the Synchronization of Flagella on the Exterior of a Sphere*
9:15am	*9:30am*	**1A.3 Ringenberg:** *Sparse Identification of Non-linear Dynamics for an Unsteady Pitching Wing Section*	**1B.3 Collado:** *Fast Agglomeration with Permeable Drops*
9:30am	*9:45am*	**1A.4 Costantino:** *Influence of Aspect Ratio on Lift Coefficient for Finite Wings in Surging Flow*	**1B.4 Sharifi:** *Mechanics and Efficiency of Zebrafish 30HPF Heart*
9:45am	*10:00am*	**1A.5 Quick:** *Capturing a Blade Tip Vortex*	**1B.5 Kern:** *Towards a Reduced Biogeochemical Flux Model for Large Eddy Simulations of the Upper Ocean*
10:00am	*10:15am*	**1A.6 Balin:** *Scale Resolving Simulations of Separated Flow over a Bump*	**1B.6 Yearout:** *Membrane Distillation Experiments with 3D Printed Spacers*
10:15am	**10:30am**	**Morning Break**	
10:30am	**11:45am**	**Session 2A: Combustion (Room A)**	**Session 2B: Making CFD Work (Room B)**
10:30am	*10:45am*	**2A.1 Yun:** *Updating High Temperature Methane Absorption Models Using Dual Comb Spectroscopy Data*	**2B.1 Patterson:** *Inflow Boundary Conditions for Scale Resolving Simulations*
10:45am	*11:00am*	**2A.2 Towery:** *Detonation Initiation by Compressible Turbulence Thermodynamic Fluctuations*	**2B.2 Meehan:** *Synthetic Turbulence Generation Method to Simulate Turbulence Generating Plates*
11:00am	*11:15am*	**2A.3 Lucas:** *Combustion and Droplet Behavior of JP-8 Surrogates in a Two-Phase Reacting Flow*	**2B.3 Whitman:** *Simulation of Bluff-Body-Stabilized Flames Using PeleC, a Combustion Code for Exascale Computing*
11:15am	*11:30am*	**2A.4 Valles Castro:** *Computational Fluid Dynamics of a Heavy Hydrocarbon Direct Injected Unmanned Aerial Vehicle*	**2B.4 Ream:** *Numerical Simulations of the Supercritical Carbon Dioxide Round Turbulent Jet*
11:30am	*11:45am*	**2A.5 Meyer:** *Azeotrope Formation During the Evaporation Process of Fuel Blends*	**2B.5 Karam:** *Efficient Multi-Stage Time Integrators For Incompressible Flow Using Pressure Projection Methods*
11:45pm	**1:00pm**	**Lunch**	
1:00pm	**2:00pm**	**Keynote: "The Role of Fluid Mechanic Instability in Gas Turbine Combustor Operability", Prof. Jacqueline O'Connor, Penn**	
2:00pm	**2:15pm**	**Afternoon Break I**	
2:15pm	**3:30pm**	**Session 3A: Machine Learning (Room A)**	**Session 3B: Engineering Applications (Room B)**
2:15pm	*2:30pm*	**3A.1 Doronina:** *On Approximate Bayesian Computation Approach for Turbulence Model Development*	**3B.1 Lapointe:** *Efficient Simulation of Complex Fire Phenomena*
2:30pm	*2:45pm*	**3A.2 Michelen-Strofer:** *New Fluid Flow Data Assimilation Formulations Using Perceptual Loss Networks*	**3B.2 Allen:** *Accounting for Complex Terrain to Optimize Wind Farm Layouts Using WindSE*
2:45pm	*3:00pm*	**3A.3 Glaws:** *Deep Learning for In-Situ Data Compression of Large CFD Simulations*	**3B.3 Appleby:** *Rheological Analysis of Conditioned Soil Material for Soft Ground Tunneling*
3:00pm	*3:15pm*	**3A.4 Stengel:** *Physics-Informed Super-Resolution of Climatological Wind Data*	**3B.4 Schulthess:** *Transient, High Pressure Oil-gas Dilution Study*
3:15pm	*3:30pm*	**3A.5 Sorrells:** *A Microfluidic Model of Bleeding to Probe the Fluid Mechanics and Biochemistry of Bleeding Disorders*	**3B.5 Mattson:** *Fluid Dynamic Forces Affect the Spatial Distribution of Cellular Injury During the Progression of Ventilator-Induced Lung Injury*
3:30pm	**3:45pm**	**Afternoon Break II**	
3:45pm	**5:00pm**	**Session 4A: Heat Transport (Room A)**	**Session 4B: Advanced Fluids (Room B)**
3:45pm	*4:00pm*	**4A.1 Dudley:** *Numerical Study of Membrane Heating in a Vacuum Membrane Distillation System*	**4B.1 Coughenour:** *Modes of Droplet Breakup in Confined Shearing Flow*
4:00pm	*4:15pm*	**4A.2 Isaacs:** *Development and Application of a Thin Flat Heat Pipe Design Optimization Tool for Small Satellite Systems*	**4B.2 Darragh:** *Particle Pair Dispersion in a High-Speed Premixed Flame*
4:15pm	*4:30pm*	**4A.3 Yahia:** *Simulation of High Rayleigh Number Natural Convection Flows using a Central Moment Lattice Boltzmann Method on a Rectangular Grid*	**4B.3 Simons-Wellin:** *An Efficient Proper Orthogonal Decomposition Algorithm for Adaptively Refined Meshes*
4:30pm	*4:45pm*	**4A.4 Johnston:** *Direct Numerical Simulation of Unsteady Mixing in Direct Contact Membrane Distillation Systems with Membrane Spacers*	**4B.4 Wallbank:** *Fluid Mechanical Forces in a Sepsis Mediated Model of Ventilator-Induced Lung Injury*
4:45am	*5:00pm*	**4A.5 Shin:** *Simulation of Low-Temperature Helium Flow in a Heated Microchannel*	
6:00pm	**8:00pm**	**Dinner at Backcountry Pizza**	