Start	End	Tuesday, August 4, 2020		
8:15am	8:30am	**Welcome** Zoom link: https://cuboulder.zoom.us/j/99659848218		
8:30am	8:55am	**Session 1A: Reacting Flows** Zoom link: https://cuboulder.zoom.us/j/91217406920	**Session 1B: Multiphase Flows** Zoom link: https://cuboulder.zoom.us/j/93965198075	**Session 1C: Engineering Applications** Zoom link: https://cuboulder.zoom.us/j/96234600699
8:30am	8:35am	**1A.1 Malarich:** *Spatially Resolved Temperature Measurements from a Single-Beam Laser*	**1B.1 Ausman:** *Oblique Collisions of Two and Three Wetted Spheres*	**1C.1 Kumar:** *Visualization of Flows from Musical Instruments*
8:35am	8:40am	**1A.2 Brown:** *Assessment of Hencken Burner Platform for Measurement of Unstretched Flame Speeds*	**1B.2 Gissinger:** *Contaminated Emulsions Flowing through Porous Media Near Critical Conditions*	**1C.2 Vallabhuneni:** *Superhydrophobic Coatings for Improved Performance of Electrical Insulators*
8:40am	8:45am	**1A.3 Callahan:** *WindCline: A Wind Tunnel for Characterizing Flame Behavior Under Variable Wind Velocity and Slope*	**1B.3 Gibson:** *Application of Koopman theory and dynamic mode decomposition to the analysis of nonlinear bubble dynamics*	**1C.3 Blanco:** *Computational Fluid Dynamic Simulations of a Finite NACA 0015 Wing in an Unsteady Flow*
8:45am	8:50am	**1A.4 Lapointe:** *Progress Towards Efficient Simulation of Fire Suppression*	**1B.4 Taassob:** *Droplet Manipulation via Triboelectrification*	**1C.4 McGhee:** *Impact of Reynolds Number on a Finite Wing in Surging Flow*
8:50am	8:55am	**1A.5 Darragh:** *Vorticity Dynamics in a Turbulent Premixed Flame*	**1B.5 Arifi:** *Optimal Control of the Nonspherical Oscillation of Encapsulated Microbubbles for Biomedicine*	**1C.5 Gloutak:** *Impact of Reduced Frequency on a Finite Wing in Surging Flow*
8:55am	9:00am	**Break I**		
9:00am	9:50am	**Panel Discussion: "Diversity and Inclusion in the Fluid Dynamics Community"** Prof. Hope Michelsen, Dr. Nazanin Hoghooghi, Katie Lockwood, Skyler Kern Zoom link: https://cuboulder.zoom.us/j/99659848218		
9:50am	10:00am	**Break II**		
10:00am	10:25am	**Session 2A: Biological Applications** Zoom link: https://cuboulder.zoom.us/j/91217406920	**Session 2B: Modeling I** Zoom link: https://cuboulder.zoom.us/j/93965198075	**Session 2C: Instabilities and Waves** Zoom link: https://cuboulder.zoom.us/j/96234600699
10:00am	10:05am	**2A.1 Wilson:** *Flow Physics Modeling for Sars-CoV-2 Negative Pressure Isolation Space in a Skilled Nursing Facility*	**2B.1 Karbach:** *Modeling of laminar-turbulent transition in Taylor-Couette system using OpenFOAM in creation of undergraduate CFD tutorial*	**2C.1 Balin:** *Simulations of a Turbulent Boundary Layer with Strong Pressure Gradients*
10:05am	10:10am	**2A.2 Teeraratkul:** *Understanding Flow-mediated Transport in the Arterial Thrombus Neighborhood*	**2B.2 Parmar:** *Data Driven RANS Modeling*	**2C.2 Meehan:** *The Reynolds Number Dependence of the Buoyant Jet Puffing Frequency*
10:10am	10:15am	**2A.3 Sahni:** *Assessing Hemodynamics in the Ascending Aorta due to Surgical Anastomosis and Flow Modulation of Left Ventricular Assist Device*	**2B.3 Doronina:** *Parameter Estimation for Menter SST RANS Model Using Approximate Bayesian Computation*	**2C.3 Whitman:** *Turbulent Structure and Mixing in a Heated Bluff Body Wake*
10:15am	10:20am	**2A.4 Benjamin:** *Measuring Pressure and Flow to Quantify Changes in Alveolar Recruitment during Mechanical Ventilation*	**2B.4 Prakash:** *Invariant Data-Driven Subgrid Stress Closure for Large Eddy Simulation of Turbulence*	**2C.4 Buedel:** *Oblique Dispersive Shock Waves on the Surface of a Steady Supercritical Shallow Water Flow*
10:20am	10:25am		**2B.5 Sardana:** *Modeling a Non-Reacting Buoyant Turbulent Helium Plume Computationally using Adaptive Mesh Refinement (AMR)*	**2C.5 Mao:** *Experimental Investigation of Nonlinear Periodic Waves in a Viscous Fluid Conduit*
10:25am	10:30am	**Break III**		
10:30am	11:20am	**Keynote: "Performance effects of vortex formation and shedding characterized by FTLE", Prof. Melissa Green, Syracuse University** Zoom link: https://cuboulder.zoom.us/j/99659848218		
11:20am	11:30am	**Break IV**		
11:30am	11:55am	**Session 3A: Optimization** Zoom link: https://cuboulder.zoom.us/j/91217406920	**Session 3B: Modeling II** Zoom link: https://cuboulder.zoom.us/j/93965198075	**Session 3C: Advanced CFD** Zoom link: https://cuboulder.zoom.us/j/96234600699
11:30am	11:35am	**3A.1 Molina:** *Optimization of Fish Kinematics using Genetic Algorithm*	**3B.1 Glaws:** *Turbulent Flow Style Transfer for Fast Wind Farm Inflow Generation*	**3C.1 Roure:** *Capture of Fine Particles by Expanding Drops in Linear Flows*
11:35am	11:40am	**3A.2 Kern:** *Reducing the Biogeochemical Flux Model for Small Scale Simulations*	**3B.2 Patterson:** *Assessing and Improving the Accuracy of Synthetic Turbulence Generation*	**3C.2 Alnajar:** *Numerical Modeling of the Dynamics of Bubbles and Droplets with the Coupled Level Set and Volume-of- Fluid (CLSVOF) Method*
11:40am	11:45am	**3A.3 Quick:** *Field Sensitivity Analysis for Wind Energy Modeling*	**3B.3 Clapham:** *Artificial Intelligence for Turbulent Flow Data Recovery*	**3C.3 Schupbach:** *Central Moment Lattice Boltzmann Method based on Fokker-Planck Collision for Computational Fluid Dyanmics*
11:45am	11:50am	**3A.4 Lopez Garulo:** *Novel Small UAS Flight Control through Active Flow Control*	**3B.4 Rybchuk:** *A Comparison of Trace Gas Dispersion from WRF-LES to Project Prairie Grass*	**3C.4 Wetterer-Nelson:** *Interactive Geometry Modification for Massively Parallel CFD Simulations*
11:50am	11:55am	**3A.5 Alireza Mirhoseini:** *An optimization approach to solve parametrized conservation laws based on reduced order models*	**3B.5 Towery:** *A Scaling Law for the Required Transition Zone Depth in Hybrid LES-DNS*	**3C.5 Wright:** *Grid Resolution Requirements for High-Fidelity STG Development in Finite Element Simulation*
11:55am	12:05pm	**Concluding Remarks** Zoom link: https://cuboulder.zoom.us/j/99659848218		