

| Start | End | Tuesday, August 10, 2021 | |
|----------------------------------------------|----------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 9:15am | 9:30am | Welcome; Zoom link: https://cuboulder.zoom.us/j/93871158287 | |
| 9:30 AM | 11:00 AM | Session 1A: Advanced Numerical Methods; Chair: Zoom link: https://cuboulder.zoom.us/j/93871158287 | Session 1B: Engineering Applications; Chair: Zoom link: https://cuboulder.zoom.us/j/99652270957 |
| 9:30 AM | 9:45 AM | 1A.1: Steven Kiyabu, <i>Modeling Combustion Reaction ODEs with Neural Networks</i> | 1B.1: Sean Bohling, <i>Experimentally Demonstrating a Structured Light and Machine Learning based Flow Velocimeter</i> |
| 9:45 AM | 10:00 AM | 1A.2: Parvathi Kooloth, <i>Data-driven Adaptive Mesh Refinement in PeleC</i> | 1B.2: Dasha Gloutak, <i>Impact of Surging Streamwise Flow on Laminar Separation Bubble Dynamics for a Finite-Span Wing</i> |
| 10:00 AM | 10:15 AM | 1A.3: Caelan Lapointe, <i>Towards Efficient Simulations of Fire Spread in the Wildland-Urban Interface</i> | 1B.3: Matt Kronwall, <i>Erosion Rates of Graphite Nozzles in Hybrid Rocket Motors</i> |
| 10:15 AM | 10:30 AM | 1A.4: Julian Quick, <i>Multifidelity Multiobjective Optimization for Wake Steering Strategies</i> | 1B.4: Luke McLaughlin, <i>The Influence of Airflow on Aerosol Production from Commercial Fire Pits</i> |
| 10:30 AM | 10:45 AM | 1A.5: Chayut Teeraratkul, <i>Two way coupled fluid-particle coupled interaction using immersed finite element method</i> | 1B.5: Aaron True, <i>Distortion of passive scalar structure during suction-based sampling of airborne odor plumes</i> |
| 10:45 AM | 11:00 AM | 1A.6: Eunji Yoo, <i>One-Dimensional Flow of Cryogenic Helium Below 4K</i> | 1B.6: Brye Windell, <i>Development of Advanced Combustion Strategies for Direct Injection Heavy Duty LPG Engines to Achieve Near-Diesel Engine Efficiency</i> |
| 11:00 AM | 11:15 AM | Break I | |
| 11:15 AM | 12:15 PM | Session 2A: Multiphase Flows; Chair: Zoom link: https://cuboulder.zoom.us/j/93871158287 | Session 2B: Modeling; Chair: Zoom link: https://cuboulder.zoom.us/j/99652270957 |
| 11:15 AM | 11:30 AM | 2A.1: Davis Conklin, <i>Modeling self-limited surface reactions on particles in a fluidized bed ALD reactor</i> | 2B.1: Filipe Henrique, <i>Double Layer Charging Inside a Nanopore of Arbitrary Debye Length</i> |
| 11:30 AM | 11:45 AM | 2A.2: Andrew J. Gibson, <i>Application of Koopman LQR to the control of nonlinear bubble dynamics</i> | 2B.2: Nathan Jarvey, <i>Impact of Faradaic Reaction of the Structure of Electrical Double Layer: A Perturbation Expansion Model</i> |
| 11:45 AM | 12:00 PM | 2A.3: William Schupbach, <i>Central Moment Lattice Boltzmann Schemes with Fokker-Planck Guided Collision for Simulation of Multiphase Flows with Surfactant Effects</i> | 2B.3: Grant Norman, <i>Mesh Element Topologies in Large Eddy Simulation</i> |
| 12:00 PM | 12:15 PM | 2A.4: Ashish Srivastava, <i>Numerical Simulation of Viscous Microdroplets Flowing Through Straight Microchannels</i> | 2B.4: Gauri Wadhwa, <i>Flow-mediated Infection Transmission in a Dynamic Social Environment in Indoor Occupied Spaces</i> |
| 12:15 PM | 1:00 PM | Break II / Lunch | |
| 1:00 PM | 2:00 PM | Keynote: "Wildland fire: how did we get here and research needed to move forward", Dr. Sara McAllister, RMRS Missoula Fire Sciences Laboratory; Zoom link: https://cuboulder.zoom.us/j/94570317915 | |
| 2:00 PM | 2:15 PM | Break III | |
| 2:15 PM | 3:00 PM | Session 3A: Atmospheric and Oceanic Flows; Chair: Zoom link: https://cuboulder.zoom.us/j/93871158287 | Session 3B: Turbulence; Chair: Zoom link: https://cuboulder.zoom.us/j/99652270957 |
| 2:15 PM | 2:30 PM | 3A.1: Emily de Jong, <i>Understanding Low Level Jets in the US Atlantic Offshore</i> | 3B.1: Michael Meehan, <i>Vorticity dynamics in buoyant helium plumes</i> |
| 2:30 PM | 2:45 PM | 3A.2: Skyler Kern, <i>Progress towards automatic parameter estimation in BFM17 using observing system simulation experiments</i> | 3B.2: Samantha Sheppard, <i>Generalizing the Concept of the Surface Layer</i> |
| 2:45 PM | 3:00 PM | 3A.3: Jaylon McGhee, <i>The Impact of Atmospheric Stability and Wake Turbulence on the Wind Turbine Blade Aerodynamics</i> | 3B.3: Samuel Whitman, <i>Thermal Effects in the Turbulent Wake of a Strongly Heated Bluff Body</i> |
| Password for All Zoom Rooms: RMFM2021 | | | |