Thursday, July 13, 2023 | 3:00 pm – 5:00 pm Eastern

Virtual participation via Zoom

Meeting Link (Click Here)

Alternatively, the meeting may be joined at <u>https://zoom.us/join</u> using ID and passcode below. Meeting ID: 988 6571 0231 Passcode: 752510

Round Table Discussions Agenda

All times are EASTERN U.S. Time Zone

3:00 Welcome and Introduction of Discussion Leads (15 min)

Overview and Meeting Logistics

Aaron Ryan

3:15 Round Table Discussions Session 1 (30 min)

After the initial logistics of the meeting are covered, researchers will be able to join a breakout room for their topic of interest. An Ames researcher will briefly introduce the area of interest. Then researchers will have the remaining time for an open roundtable discussion.

3:45 Break Period (10 min)

3:55 Round Table Discussions Session 2 (30 min)

During the second sessions the researchers are encouraged to rotate to the other breakout rooms.

4:25 Open Discussion Period (35 min)

After the initial structured discussion period, additional breakout rooms will be available for one on one or side discussions. Researchers are welcome to make use of the Zoom breakout rooms to hold additional discussions. The meeting room will remain open for additional discussions until 5:00 pm.

In addition to this agenda, you should have received a **Zoom Breakout Room Guide** that includes screenshots and instructions to aid in navigating the breakout rooms.

The following NASA EPSCoR caucus representatives will be "Co-Hosts" who will rotate around to provide technical assistance:

Zoom Hosts

Aaron Ryan, Greg Guzik, Denise Thorsen, Bernard "Chip" Cole, Ellen Brennan

Topic 1: Entry Systems

Aaron Brandis



Dr. Brandis is a senior research scientist in the Aerothermodynamics branch at NASA Ames Research Center, California. He is the PI for NASA's Entry Systems Modeling project, Dragonfly aerothermal lead and Investigation Lead for Dragonfly's Titan entry instrumentation, known as DrEAM. His research focuses on shock layer radiation with the NEQAIR code and EAST shock tube facility.

Justin Haskins



Dr. Haskins is a research scientist in the Thermal Protection Materials Branch at NASA Ames Research Center. He currently serves as the Project Manager for the Entry Systems Modeling project and has served in other roles ranging from deputy branch chief and research group lead. His research has focused on leveraging multiscale modeling – ab initio to continuum techniques – to evaluate aerospace material properties and failure. He has published over 50 peer review articles in the computational materials discipline and was awarded NASA's Early Career Public Achievement medal for contributions to the computational materials discipline.

Topic 2: Advanced Computing and IT Systems



Piyush Mehrotra

PAs chief of the NASA Advanced Supercomputing (NAS) Division, Piyush Mehrotra oversees the full range of high-performance computing services for NASA's primary supercomputing center. He also manages NAS's modeling and simulation research and development efforts, which are critical for numerous agency missions. Mehrotra's key responsibilities are setting high-level objectives for the division, creating and maintaining a productive, high-impact computational facility, and coordinating technical strategy with both Ames and NASA Headquarters management. This work encompasses managing about 200 research and development (R&D) scientists, engineers, and support staff comprised of civil servants and contractors.

Topic 3: Aerosciences and Airborne Science

Jay Fletcher



Jay Fletcher has been at NASA Ames for over 28 years, most recently as the Director of the New Opportunities Center in Code P. In that role he led Ames development of the Icebreaker Discovery mission proposal which was rated selectable, and the HelioSwarm Medium Explorers mission proposal which was selected for a Phase A Concept Study award. From 2013 to 2018 Jay was the Deputy Director of the Aeroflightdynamics Directorate (AFDD) at Ames, leading Army Aviation research and development in flight control, autonomy, aeromechanics, vehicle design, and human systems integration. Jay was a member of the Army/NASA Rotorcraft Division from 2004 to 2007, and he led the RASCAL JUH-60 flight research program from 2005 to 2013. He has also worked as a Principle Research Engineer at United Technologies Research Center and as an engine development engineer for Toyota Racing Development. He has a bachelor's degree in Mechanical and Aerospace Engineering from Princeton University, and a certificate in Systems Design and Management from MIT.

Topic 4: Astrobiology and Life Science

Penny Boston



Topic 5: Cost-Effective Space Missions

Bruce Yost

Bruce Yost is currently the NASA Director of the Small Spacecraft Systems Virtual Institute (S3VI), which is funded and managed by the NASA Space Technology Mission Directorate. The S3VI is engaged in assisting NASA smallsat missions across a number of mission phases including assimilating and providing knowledge about smallsat best practices, supplier offerings, concept development, and mission operations and lessons learned. Prior to S3VI, he was the Program Manager for the Small Spacecraft Technology Program within STMD. He began his aerospace career working on the Space Shuttle at Kennedy Space Center, and also worked at NASA Headquarters prior to moving to Ames Research Center. Bruce has worked on a number of Shuttle, ISS, and more recently, smallsat missions and programs for over 30 years.

Jan Stupl



Jan Stupl is a Systems Engineer in the Spaceflight Division of NASA Ames' Engineering Directorate. He currently is lead systems engineer for the CubeSat Laser Infrared CrosslinK Mission (CLICK) mission and supports the Pathfinder Technology Demonstrator series of CubeSat missions. He is also a technical monitor for several external technology development projects conducted by partners in academia and industry. Jan joined NASA Ames as a contractor in 2011 and has been a civil servant since 2021. He initially supported and led technology development activities in the Mission Design Center, including a space-debris mitigation concept, a novel approach for laser communications and various CubeSat missions. As part of the Mission Design Center, Jan led concept studies as a project manager and supported others as science liaison and systems engineer. Jan received his PhD in laser physics from University of Hamburg and was a postdoc at the Center for International Security & Cooperation (CISAC) at Stanford University before joining NASA.

Topic 6: Intelligent and Adaptive Systems



Joseph Coughlan

Dr. Joseph Coughlan is the Associate Division Chief for Science in the Intelligent Systems Division at NASA's Ames Research Center, California. He is the senior technical advisor for Systems Wide Safety Project in NASA Aeronautics Mission Directorate https://www.nasa.gov/aeroresearch/programs/aosp/sws. Dr. Coughlan worked in the formulation, execution and closeout of the Intelligent Systems Project, which funded external PIs conducting fundamental "AI" research covering machine learning, autonomy, and human-centered computing motivated by the needs of NASA mission directorates. He also led Robust Software Engineering branch developing advance software engineering techniques applied to NASA missions and commercial aviation. He holds graduate degrees in computer science (MS) and earth science (forest ecophysiology Ph.D.).

Topic 7: Space and Earth Science



Matt Fladeland (Earth Science)

Matt Fladeland is a Research Scientist at NASA Ames and leads the Airborne Science Office within the Ames Earth Science Division where he manages a diverse team of engineers to support the NASA Airborne Science Program science fleet across the Agency. Matt has been working to apply uncrewed aircraft systems (UAS) to NASA's unique observing requirements for over 15 years. For the past several years Matt has been working to enable science demonstrations of the next generation of high-altitude long endurance (HALE) UAS working together with industry, science teams, and the NASA Aeronautics Research Mission Directorate. Matt has been the recipient of several NASA Group Achievement awards for his participation on past flight projects, and he was awarded the NASA Leadership Medal in 2020.

Luke Sollitt (Space Science)

Topic 8: Exoplanets

Dan Sirbu



Dr. Dan Sirbu is a research scientist in the Astrophysics Branch within Space Science and Astrobiology Division at NASA Ames Research Center, California. He is an instrumentalist focusing on developing technology to enable highcontrast direct imaging of exoplanets within nearby star systems for NASA's upcoming flagships. He serves as a Roman Community Partnership Program co-investigator for the Coronagraph Instrument focus on exoplanet science in binary stars for the contributed Multi-Star Wavefront Control mode. In addition, he currently serves as a member of both the Coronagraph Technology Roadmap and Coronagraph Design Survey groups for the Habitable Worlds Observatory