A graphic consisting of four colored triangles (pink, blue, orange, red) arranged in a square pattern, with the top two triangles pointing up and the bottom two pointing down.

**NASA STEM**

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BETTER TOGETHER  
FOR STAKEHOLDER SUCCESS

**CONFERENCE  
GUIDE**

**March 18–19, 2021**

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On behalf of the NASA STEM Better Together Conference Planning Team, we express our sincere appreciation for your attendance.

Please feel free to reach out to our team at any point throughout the conference for assistance at [HQ-STEM-Engagement@mail.nasa.gov](mailto:HQ-STEM-Engagement@mail.nasa.gov)

During the conference, reach out to [stemtogether2@getvfairs.io](mailto:stemtogether2@getvfairs.io) for technical assistance regarding the platform or accessing the sessions.



**INSPIRE - ENGAGE - EDUCATE - EMPLOY**  
**The Next Generation of Explorers**

NASA's journeys have propelled technological breakthroughs, pushed the frontiers of scientific research, and expanded our understanding of the universe. These accomplishments, and those to come, share a common genesis: education in science, technology, engineering, and mathematics (STEM).

The Office of STEM Engagement (OSTEM) delivers tools for young Americans and educators to learn and succeed.

We seek to:

- Create unique opportunities for a diverse set of students to contribute to NASA's work in exploration and discovery.
- Build a diverse future STEM workforce by engaging students in authentic learning experiences with NASA's people, content, and facilities.
- Attract diverse groups of students to STEM through learning opportunities that spark interest and provide connections to NASA's mission and work.

To achieve these goals, OSTEM strives to increase K-12 involvement in NASA projects, enhance higher education, support underrepresented communities, strengthen online education, and boost NASA's contribution to informal education. The intended outcome is a generation prepared to code, calculate, design, and discover its way to a new era of American innovation.

For more information, visit: [www.nasa.gov/stem](http://www.nasa.gov/stem)

## NASA STEM Engagement Leadership

### Associate Administrator

Michael Kincaid

### Deputy Associate Administrator

Kris Brown

### Deputy Associate Administrator

Elaine Ho

### Executive Officer

Lisa Stewart

### Manager, Budget

Tanye Coleman

### Manager, Portfolio Integration

Diane DeTroye

### Manager, Program Evaluation

Richard Gilmore

### Manager, Strategic Partnerships

Robert LaSalvia

### Manager, Infrastructure, Tools and Platforms

Tammy Brandon

### Manager, Fellowships and International Initiatives

Carolyn Knowles

### Manager, Internships

Lynnette Madison

### Manager, Next Generation STEM Project

Dr. Carrie Olsen

### Manager, Informal Education and Engagement

Dr. Beverly Girten

### Manager, Space Grant College and Fellowship Program

Dr. Rajiv Doreswamy

### Manager, Established Program to Stimulate Competitive Research

Jeppie Compton

### Manager, Minority University Research and Education Project

Torry Johnson

## NASA Mission Directorate Leads

### Aeronautics Research

Karen Rugg

### Space Technology

Stephanie Yeldell

### Science

Kristen Erickson

### Human Exploration and Operations

Dr. Alotta Taylor

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**Katey Arnold**

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**Daesha Roberts**

Run of Show

The conference planning team expresses our sincere thanks to all of the OSTEM project teams for preparing outstanding sessions, as well as to a host of moderators; volunteers; external guest speakers; mission directorate, technical, and communications guest panelists; and our colleagues who created amazing virtual exhibits and posters for everyone to enjoy.

On behalf of the Office of STEM Engagement, thank you for attending the NASA STEM: Better Together for Stakeholder Success virtual conference, taking place March 18-19, 2021. We are excited to have you join us as we explore best practices in engaging students in STEM through topical discussions and briefings with NASA experts, staffed poster sessions, an interactive virtual exhibit hall and more.

Over the next two days, more than 1,500 stakeholders, partners, and other NASA OSTEM grantees – including those from Space Grant, MUREP, Next Gen STEM, and EPSCoR – will have a chance to interact and learn from one another. The purpose of the conference for our grantees is three-fold: to connect OSTEM grantees with each other to encourage greater collaboration, to connect grantees to NASA's technical content and mission, and to facilitate dialogue on broadening participation in STEM. You will have the unique opportunity to:

- Hear directly from NASA leadership and technical experts about current and future missions;
- Interact directly with NASA technical experts from projects like Artemis Gateway, Commercial Crew Program, Mars 2020, James Webb Space Telescope, X-Planes and Lunar Technologies;
- Learn more about OSTEM's expansive efforts to reach students, as well as support educators and institutions; and
- Engage with OSTEM stakeholders to build synergies to carry out NASA's vision for our next generation of explorers;

After our two days together come to an end, we want participants to walk away with meaningful, lasting connections with one another, because we truly are better together. To facilitate this, we have incorporated discussions, designated networking times, and included interactive experiences with posters and booths into the two-day program. During the conference, attendees are encouraged to reach out to others via the virtual platform's chat function and, after the conference, everyone will have access to the full list of attendee contact information to keep the conversations going long after the Closing Plenary.

We can't wait to see all of you soon!

Sincerely,

The NASA STEM Better Together Planning Team

## Established Program to Stimulate Competitive Research (EPSCoR)

EPSCoR establishes partnerships with government, higher education, and industry that are designed to effect sustainable improvements in research infrastructure, research and development capacity and competitiveness in eligible jurisdictions. EPSCoR is directed at those jurisdictions that have not participated equably in competitive research and development activities. Twenty-five states, the Commonwealth of Puerto Rico, the U.S. Virgin Islands and Guam currently participate. Five federal agencies, including NASA, conduct EPSCoR programs. For more information, visit: <https://www.nasa.gov/offices/education/programs/national/epscor/home>.

### CONTACTS

For feedback or general inquiries, please contact us at [agency-epscor@mail.nasa.gov](mailto:agency-epscor@mail.nasa.gov).

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## Minority University Research and Education Project (MUREP)

MUREP provides financial assistance via competitive awards to minority-serving institutions, or MSIs. These opportunities are available to Historically Black Colleges and Universities (HBCU), Hispanic-Serving Institutions (HSI), Asian American and Native American Pacific Islander-Serving Institutions (AANAPISI), Alaska Native and Native Hawaiian-Serving Institutions (ANNH), American Indian Tribal Colleges and Universities (TCU), Native American-Serving Nontribal Institutions (NASNTI), Predominately Black Institutions (PBI) and others. MUREP investments enhance the research, academic and technology capabilities of MSIs through multiyear cooperative agreements. Awards assist faculty and students in research and provide authentic STEM engagement opportunities related to NASA missions, affording NASA-specific knowledge and skills to students from groups that have historically been underrepresented and underserved in STEM. For more information, visit: <https://www.nasa.gov/offices/education/programs/national/murep>.

### CONTACTS

For feedback or general inquiries, please contact us at [hq-murep@mail.nasa.gov](mailto:hq-murep@mail.nasa.gov).

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## National Space Grant College and Fellowship Program (Space Grant)

Space Grant is a national network of colleges and universities with over 1,000 affiliate institutions and organizations working to expand opportunities for students to participate in NASA's aeronautics and space projects. Space Grant is made up of 52 consortia located in all 50 states, the District of Columbia, and Puerto Rico. The project funds internships, fellowships, and scholarships and offers programs and learning opportunities that enable and support STEM education, research, and student engagement. Space Grant also engages students and educators from elementary to secondary levels through hands-on experiences, faculty development, curriculum enhancement, and precollege education. For more information, visit: <https://www.nasa.gov/offices/education/programs/national/spacegrant/about>.

### CONTACTS

For feedback or general inquiries, please contact us at [hq-space-grant@mail.nasa.gov](mailto:hq-space-grant@mail.nasa.gov).

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## Next Generation STEM (Next Gen STEM)

The Next Gen STEM project provides a platform for students to contribute to NASA's endeavors in exploration and discovery through mission-driven activities, evidence-based education products, and authentic STEM experiences. With its primary focus on K-12 and informal education, Next Gen STEM aims to help attract and retain students toward building a vibrant next-generation STEM workforce, focusing on reaching underrepresented and underserved populations. Next Gen STEM conducts competitive opportunities for informal educational institutions through Teams Engaging Affiliated Museums and Informal Institutions (TEAM II). Next Gen STEM also operates the Museum and Informal Education (MIE) Alliance, which offers learning institutions educational resources and services. For more information, visit: <https://www.nasa.gov/stem/nextgenstem/>.

### CONTACTS:

For feedback or general inquiries, please contact us at [grc-nextgenstem@mail.nasa.gov](mailto:grc-nextgenstem@mail.nasa.gov).

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**DAY ONE – March 18, 2021**

- 10:00 a.m. (ET)**      **Optional: Networking and Exploration Time**  
 Location: Lounge, Exhibit Hall, Poster Hall
- 12:00 p.m. (ET)**      **Opening Plenary**  
 Location: Auditorium  
**Welcome and Opening Remarks:**  
     Steve Jurczyk – Acting NASA Administrator  
**Center Directors Panel:**  
     Mike Kincaid – Associate Administrator, OSTEM  
     Dr. Marla Perez-Davis – Director of John H. Glenn Research Center  
     Dr. Eugene Tu – Director of Ames Research Center  
     Jody Singer – Director of Marshall Space Flight Center  
     Clayton Turner – Director of Langley Research Center
- 1:00 p.m. (ET)**      **Break**
- 1:15 p.m. (ET)**      **Tech Talks: Understanding the Technical Aspects of NASA Missions**  
 Location: Breakout Rooms via Auditorium  
**Concurrent briefings (choose one session to attend):**
- |                                     |   |
|-------------------------------------|---|
| <input type="checkbox"/> James Webb | <input type="checkbox"/> CCP                |
| <input type="checkbox"/> X-Planes   | <input type="checkbox"/> Artemis            |
| <input type="checkbox"/> Mars 2020  | <input type="checkbox"/> Lunar Technologies |
- 2:15 p.m. (ET)**      **Break**
- 2:30 p.m. (ET)**      **Networking and Exploration Time**  
 Location: Lounge, Exhibit Hall, Poster Hall
- 3:30 p.m. (ET)**      **Break**
- 3:45 p.m. (ET)**      **Discussion: Connecting Students to NASA Missions**  
 Location: Breakout Rooms via Auditorium  
**Concurrent discussions (choose one session to attend):**
- |                                     |   |
|-------------------------------------|---|
| <input type="checkbox"/> James Webb | <input type="checkbox"/> CCP                |
| <input type="checkbox"/> X-Planes   | <input type="checkbox"/> Artemis            |
| <input type="checkbox"/> Mars 2020  | <input type="checkbox"/> Lunar Technologies |
- 4:45 p.m. (ET)**      **Break**
- 5:00 p.m. (ET)**      **Networking and Exploration Time**  
 Location: Lounge, Exhibit Hall, Poster Hall
- 6:00 p.m. (ET)**      **End of Day One**

**DAY TWO – March 19, 2021**

- 10:00 a.m. (ET)**      **Optional: Networking and Exploration Time**  
 Location: Lounge, Exhibit Hall, Poster Hall
- 12:00 p.m. (ET)**      **Opening Plenary: A Conversation with Astronaut Chris Cassidy**  
 Location: Auditorium  
 Speaker:  
                                  Chris Cassidy – NASA Astronaut
- 1:00 p.m. (ET)**      **Break**
- 1:15 p.m. (ET)**      **Keynote: Diversity, Equity & Inclusion – A Systemic Approach**  
 Location: Auditorium  
 Speaker:  
                                  Dr. Julie Johnson – Program Director, Division on Research & Learning,  
                                  National Science Foundation
- 2:15 p.m. (ET)**      **Break**
- 2:30 p.m. (ET)**      **Discussion: Tackling Diversity, Equity and Inclusion Challenges**  
 Location: Breakout Rooms via Auditorium  
 Concurrent discussions (choose one session to attend):

  - Addressing DEAI challenges in Higher Education
  - Addressing DEAI challenges in Informal Education
  - Leveraging Networks to Address DEAI
  - Opportunities to Partner with MUREP
  - Trends Affecting Higher Education Students of Color Post-COVID
- 3:30 p.m. (ET)**      **Break**
- 3:45 p.m. (ET)**      **Networking and Exploration Time**  
 Location: Lounge, Exhibit Hall, Poster Hall
- 4:30 p.m. (ET)**      **Closing Plenary: A Conversation with Dr. Thomas Zurbuchen**  
 Location: Auditorium  
 Closing Remarks:  
                                  Dr. Thomas Zurbuchen – Associate Administrator of NASA’s Science  
                                  Mission Directorate
- 5:15 p.m. (ET)**      **Break**
- 5:30 p.m. (ET)**      **Networking and Exploration Time**  
 Location: Lounge, Exhibit Hall, Poster Hall
- 6:00 p.m. (ET)**      **End of Day Two**



## On-Demand Content

Location: Auditorium - On-Demand Content

### OSTEM Project: An Introduction to EPSCoR

**Speakers:**

**Jeppie Compton** – NASA EPSCoR National Project Manager  
**Dr. Mitch Krell** – NASA EPSCoR Deputy National Project Manager  
**Dr. Lester Morales** – NASA EPSCoR Inter-Agency Coordinator  
**Grady Smith** – NASA EPSCoR Program Coordinator  
**Gail Shine** – NASA EPSCoR Program Coordinator

### EPSCoR FAST – Applying for Fellows Advancing Science and Technology

**Speaker:**

**Dr. Chinonye Nnakwe Whitley** – NSF Program Officer with EPSCoR

### OSTEM Project: An Introduction to MUREP

**Speaker:**

**Torry Johnson** – MUREP Project Manager

### OSTEM Project: An Introduction to Next Gen STEM

**Speaker:**

**Carrie Olsen** – Next Gen STEM Project Manager

### OSTEM Project: An Introduction to Space Grant

**Speakers:**

**Dr. Rajiv Doreswamy** – Acting Space Grant Project Manager  
**Dr. Erica J. Alston** – Deputy Space Grant Project Manager

### OSTEM Function: Communications – The NASA STEM Story

**Speaker:**

**Katherine Brown** – Communications Lead

### OSTEM Function: Internships 101 – Proposal to Intern

**Speakers:**

**Lynnette Madison** – NASA Internship Manager  
**Raquel Marshall** – MUREP Student Engagement and Internships Strategy Lead  
**Veronica Seyl Clauson** – Internship Operations and Communications Lead  
**Valerie Ellis** – NASA Space Grant Coordinator

### OSTEM Function: OSTEM IT Tools & Platforms – SharePoint Online and NASA STEM Gateway

**Speakers:**

**Doug Goforth** – OSTEM Deputy Manager for IT Tools and Platforms  
**Becky Kamas** – OSTEM SharePoint Integration Lead & STEM on Station Activity Manager

**OSTEM Function: Performance and Evaluation (P&E) Overview****Speakers:**

**Rick Gilmore** – Performance Assessment and Evaluation Program Manager

**Dr. Tara Strang** – Senior Evaluation Specialist

**Clarence Jones** – OEPM Database Coordinator/Technology Coordinator

**Agency Info: NASA Shared Services Center Grant Administration Overview****Speaker:**

**Libby Romaguera** – NASA Lead Grant Officer

**Agency Info: The Needed Precautions When Working with Foreign Nationals or Universities****Speaker:**

**Greg Nagurka** – Criminal Investigator

**Agency Info: Updates to 2 CFR and the Uniform Guidance****Speaker:**

**Chris Murguia** – Senior Analyst

**Guest Presentation: Keynote Speaker - Astronaut Kjell N. Lindgren****Speaker:**

**Kjell N. Lindgren** – NASA Astronaut

**Guest Presentation: Coffee Hour with Leland Melvin****Speaker:**

**Leland Melvin** – Former NASA Astronaut

**Guest Presentation: Broadening Student Participation****Speaker:**

**Dr. Moiya McTier** – Ph.D. Astrophysicist, Folklorist, & Science Communicator

**Guest Presentation: Knowledge Boost – Impact of COVID-19 on STEM Education****Speaker:**

**Dr. Jennifer Hamilton** – NORC at the University of Chicago

**Dr. Heather Thiry** – University of Colorado Boulder

**Dr. Kristin Horan** – University of Central Florida

**Guest Presentation: Innovations in STEM Learning****Speaker:**

**Michael H. Levine** – Senior Vice President of Learning and Impact for Noggin

**Beth Richman** – Senior Learning and Impact Adviser for Noggin

**Guest Presentation: What the Hack!?****Speaker:**

**Rosemary Smith** – Education Specialist, NASA's Langley Research Center

**Lindsay Thornton** – Sr. Education Programs Specialist, NASA's Langley Research Center

# LIVE SESSIONS

**Day One - March 18, 2021**

## OPENING PLENARY

### **SPEAKERS:**

#### **Opening Plenary**

**Steve Jurczyk** – Acting Administrator of NASA

#### **Center Directors Panel**

**Dr. Marla Perez-Davis** – Center Director, NASA's Glenn Research Center

**Dr. Eugene Tu** – Center Director, NASA's Ames Research Center

**Jody Singer** – Center Director, Marshall Space Flight Center

**Clayton Turner** – Center Director, NASA's Langley Research Center

Join us for a conference welcome from Steve Jurczyk, NASA's Acting Administrator! Additionally, Mike Kincaid, NASA OSTEM Associate Administrator will moderate a conversation about the importance of engaging students in NASA's mission with four NASA Center Directors: Dr. Marla Perez-Davis, Director of John H. Glenn Research Center, Dr. Eugene Tu, Director of Ames Research Center, Jody Singer, Director of Marshall Space Flight Center, and Clayton Turner, Director of Langley Research Center. Please note, this is the only session during the conference that will take place as a Webex Event. When you click on the join button (which will be active 5 minutes prior to the session start time), enter your first name, last name and email address (the session password is pre-populated) and you will be connected to the session as a participant. Please send an email to [stemtogether2@getvfairs.io](mailto:stemtogether2@getvfairs.io) if you have difficulty joining the session. We look forward to welcoming you to our opening plenary session!

## TECH TALKS

### **Session 2.1 Breakout Tech Talk - James Webb**

#### **SPEAKER:**

**Dr. Eric Smith** – Program Scientist, James Webb Telescope Program

The James Webb Space Telescope will be the world's premier space science observatory when it launches later this year. Join Dr. Eric Smith as he shares how Webb will solve mysteries in our solar system, look beyond to distant worlds around other stars, and probe the mysterious structures and origins of our universe and our place in it. Come hear about the amazing science and technology involved in this international program led by NASA with its partners, ESA (European Space Agency) and the Canadian Space Agency.

### **Session 2.2 Breakout Tech Talk - CCP**

#### **SPEAKERS:**

**Carla Koch** – Deputy Certification Manager

**Ryan Hurley** – Aerospace Engineer, Launch Services Program

NASA's Commercial Crew Program is working with the American aerospace industry as companies develop and operate a new generation of spacecraft and launch systems capable of carrying crews to low-Earth orbit and the International Space Station. NASA Deputy Certification Manager for SpaceX Carla Koch will talk about the process of certifying spacecraft for launch, and NASA Launch Services Program Flight Dynamics Engineer Ryan Hurley will discuss analysis activities for launch vehicle certification, followed by a panel discussion.

## Session 2.3 Breakout Tech Talk - X-Planes

### SPEAKER:

**Ed Waggoner** – ARMD Deputy AA for Programs

**Brad Flick** – AFRC Director of Research and Engineering/ Aeronautics Research Director

**Tim McCartney** – GRC Aeronautics Research Director

**Mary Dijoseph** – LaRC Aeronautics Research Director

X-Planes: The future of flight as we know it is being shaped by NASA's two newest X-Planes. Join NASA's Aeronautics Research Mission Directorate Deputy Associate Administrator Dr. Ed Waggoner to hear about the past, present, and future of NASA X-Planes, supersonic flight, and electric propulsion. Then, join in on a panel discussion and Q&A by the NASA Center Aeronautics.

## Session 2.4 Breakout Tech Talk - Artemis

### SPEAKER:

**Debra Ludban** – Deputy Manager, Gateway Vehicle System Integration Office at NASA's Johnson Space Center

Learn about a vital part of NASA's deep space exploration plans, the Gateway. The Gateway will be an outpost orbiting the Moon that provides vital support for a sustainable, long-term human return to the lunar surface, as well as a staging point for deep space exploration. In this session you will learn how this destination will be used for astronaut expeditions and science investigations, as well as a port for deep space transportation such as landers en route to the lunar surface or spacecraft embarking to destinations beyond the Moon.

## Session 2.5 Breakout Tech Talk - Mars 2020

### SPEAKERS:

**David Lavery** – Program Executive For Solar System Exploration, Science Mission Directorate, Planetary Systems Division

**George Tahu** – NASA Science Mission Directorate Program Executive

This session will go through the technical implementation of the Perseverance rover mission which just arrived at Mars last month, along with a preview of the upcoming deployment and flight of the Ingenuity Mars Helicopter. This will be followed by the Discussion session with a detailed review of tools and opportunities for "citizen science" participation by both students and adults in the exploration of Mars.

The Mars Exploration Program actively invites students and citizens to participate in the exploration of Mars, and help investigate the Red Planet through the eyes of our robots. We make the images of Mars acquired by the robotic rovers available to the public as quickly as they are available to the science teams, and urge "citizen scientists" to see what they can discover.

## Session 2.6 Breakout Tech Talk - Lunar Technologies

### SPEAKERS:

**Niki Werkheiser** – Director of Technology Maturation, Game Changing Development, Lunar Surface Innovation Initiative, Space Technology Mission Directorate

To champion technologies needed to live on and explore the Moon via the Artemis program, NASA's Space Technology Mission Directorate (STMD) established the Lunar Surface Innovation Initiative (LSII). LSII is a technology development portfolio to enable human and robotic exploration on the Moon and future operations on Mars. The activities will be implemented through a combination of unique NASA work and public-private partnerships. Technology development and demonstrations will mature the following capabilities:

- Utilizing the Moon's resources
- Establishing sustainable surface power
- Building machinery and electronics that work in extreme environments, like super-chilly permanently shadowed craters
- Mitigating lunar dust
- Carrying out surface excavation, manufacturing and construction duties
- Extreme access which includes navigating and exploring the surface/subsurface

## DISCUSSIONS

### Discussion 3.1: Breakout Session - James Webb

#### SPEAKERS:

**Natasha Pinol** – Communications Lead, James Webb Space Telescope Program, Office of Communications, Science Mission Directorate

**Denise Smith** – Deputy Head, Office of Public Outreach, Space Telescope Science Institute

Moderated breakout discussions for attendees to brainstorm and develop actionable ideas that create opportunities for students to engage with JWST.

### Discussion 3.2: Breakout Session - CCP

#### SPEAKERS:

**Crystal Jones** – Deputy Manager for Ground & Mission Operations Office, Commercial Crew Program

**Jennifer Wolfinger** – Public Affairs Officer, KSC

**Jessica Sain** – NASA Lead Education Specialist, Office of STEM Engagement, NSPACE

Moderated breakout discussions for attendees to brainstorm and develop actionable ideas that create opportunities for students to engage with CCP.

### Discussion 3.3: Breakout Session - X-Planes

#### SPEAKERS:

**Matt Kamlet** – AFRC Aeronautics Public Affairs Officer

**April Lanotte** – ARMD STEM Integration Lead

**Karen Rugg** – ARMD Lead for Communications/STEM Engagement

Moderated breakout discussions for attendees to brainstorm and develop actionable ideas that create opportunities for students to engage with the X-Planes.

### **Discussion 3.4: Breakout Session - Artemis**

#### **SPEAKERS:**

**Debra Ludban** – Deputy Manager, Gateway Vehicle System Integration Office (JSC)

**Christina Zaid** – HEOMD Comm Strategist

**Alicia Baturoni Cortez** – STEM Engagement Embed for HEOMD

Moderated breakout discussions for attendees to brainstorm and develop actionable ideas that create opportunities for students to engage with Gateway.

### **Discussion 3.5: Breakout Session - Mars 2020**

#### **SPEAKERS:**

**David Seidel** – STEM Engagement Director at NASA's Jet Propulsion Laboratory

**Sarah Marcotte** – Public Engagement Specialist at NASA's Jet Propulsion Laboratory

Moderated breakout discussions for OSTEM PIs and grantees to brainstorm and develop actionable ideas that create opportunities for students to engage with Mars 2020.

### **Discussion 3.6: Breakout Session - Lunar Technologies**

#### **SPEAKERS:**

**Drew Hope** – Deputy Director of Technology Maturation

**Carol Galica** – Strategy and Planning Lead for the LSII, STMD

**Stacey Dees** – Higher Education Challenges Portfolio Manager/BIG Idea Challenge Program Manager

Moderated breakout discussions for attendees to brainstorm and develop actionable ideas that create opportunities for students to engage with Lunar Technologies.

### **Day Two - March 19, 2021**

#### **OPENING PLENARY – Session 4: A Conversation with Astronaut Chris Cassidy**

##### **SPEAKER:**

**Chris Cassidy** – NASA Astronaut

Hear from Astronaut Chris Cassidy as he shares stories about his own STEM journey, the importance of STEM education to the future of NASA and more. We are pleased to welcome him home from the recent his most recent flight where he served as Commander on the International Space Station for Expedition 63. Cassidy and his fellow Astronaut Robert Behnken completed four spacewalks, totaling 23 hours and 37 minutes, to upgrade station batteries. Cassidy now has spent a total of 378 days in space, the fifth highest among U.S. astronauts.

## **Keynote - Session 5: Diversity, Equity, Access, and Inclusion - A Systemic Approach**

### **SPEAKER:**

**Julie Johnson** – Program Director in the Division on Research and Learning at the National Science Foundation

Despite ongoing conversations, intentional efforts, and heightened awareness, there continues to be persistent disparities with racial/ethnic minorities, women, persons with disabilities and other underrepresented and underserved groups in STEM fields. Join us for a moderated conversation with Dr. Julie Johnson, who will share her perspective on a common vocabulary and understanding around these issues, offer her thoughts on a framework for a systemic approach, as well as strategies to bridge the gap between research and practice.

## **DISCUSSIONS**

### **Discussion 6.1: Addressing Diversity, Equity, Access, and Inclusion Challenges in Higher Education**

#### **SPEAKERS:**

**Cassandra Runyon** - Associate Professor, Geology, College of Charleston, Director of NASA South Carolina Space Grant Consortium and South Carolina NASA EPSCoR

**Paulo Oemig** – Director of New Mexico Space Grant Consortium (NMSGC) and New Mexico NASA EPSCoR

**Caitlin Nolby** – Deputy Director of North Dakota Space Grant and North Dakota NASA EPSCoR

**Erica Alston** – Deputy Space Grant Manager

Colleges and universities around the country are wrestling with the challenge of attracting and engaging students into STEM, especially those in underrepresented and underserved communities. Participate in a moderated discussion where three Space Grant Directors will share both some challenges and promising practices that will kick start the conversation!

### **Discussion 6.2: Addressing Diversity, Equity, Access, and Inclusion Challenges in Informal Education**

#### **SPEAKERS:**

**Julie Johnson** – Program Director in the Division on Research and Learning at the National Science Foundation

**Rabiah Mayas** – Ruth D. and Ken M. Davee Vice President of Education and Guest Experience at the Museum of Science and Industry, Chicago (MSI)

**Derrick Pitts** – Chief Astronomer, Planetarium Programs Director, The Franklin Institute

**Kevin Frank** – Informal STEM Engagement Manager, NASA's Jet Propulsion Laboratory

Museums, science centers, and other informal educational institutions are uniquely positioned to spark interest in STEM and keep youth engaged through community-based programs. They play a critical role in reaching students of all backgrounds. Join Dr. Julie Johnson from the NSF, Dr. Rabiah Mayas from Chicago's Museum of Science and Industry and Mr. Derrick Pitts from Philadelphia's Franklin Institute for a facilitated discussion designed to identify challenges and explore approaches to reduce barriers for participation. All are welcome to listen and contribute!

## **Discussion 6.3: Leveraging networks to address Diversity, Equity, Access, and Inclusion**

### **SPEAKERS:**

**Dr. Tori Rhoulac Smith** – Program Director in the Division of Human Resource Development (HRD) of the National Science Foundation’s Directorate for Education and Human Resources (EHR)

**Susan Poland** – NASA OSTEM Education Specialist

When tackling different aspects of broadening participation in STEM, individuals, organizations and institutions too often operate independently when they could be sharing ideas and resources by working together. Join special guest, Dr. Tori Rhoulac Smith, in a facilitated discussion as she shares her expertise in how networks, partnerships, and collaborations can support and accelerate efforts to broaden participation in STEM education and careers. Come ready to share questions, ideas, and success stories!

## **Discussion 6.4: Opportunities to partner with MUREP**

### **SPEAKERS:**

**Torry Johnson** – MUREP Project Manager

**Daesha Roberts** – MUREP Senior Specialist

At the Office of STEM Engagement, we often get the question: how can we work with MUREP? To start the session, MUREP Project Manager, Torry Johnson, will share a quick overview of MUREP, some examples of effective partnerships and collaborations, and then open it up to “virtual” discussion to hear your questions and brainstorm ideas. (While MUREP grantees are welcome to listen in, this session is focused on how MUREP can partner with those in other parts of the OSTEM community.)

## **Discussion 6.5: Trends Affecting Higher Ed Students of Color Post-COVID**

### **SPEAKERS:**

**Dr. Eileen Hulme** – Vice President for Enterprise Development and Regional Ventures at Indiana Wesleyan University

**Elaine Ho** – Deputy Associate Administrator, OSTEM

As the US emerges from the COVID19 pandemic, concerns that impacted college and universities before the pandemic appear to have been exacerbated by the economic uncertainty facing the country. These trends are already negatively affecting low-income, students of color and their families. Join expert, Dr. Eileen Hulme, who will present data revealing the early indicators of declining enrollment of low socioeconomic status and diverse students and lead a discussion around those students who are thriving and explore practical approaches for ensuring STEM success for all individuals. Participants will have the opportunity to share effective interventions and reflect on the specific changes needed on their campus.

## **CLOSING PLENARY – 7: Thomas Zurbuchen**

### **SPEAKER:**

**Dr. Thomas Zurbuchen** – Associate Administrator, NASA’s Science Mission Directorate

Don’t miss our closing plenary session with Dr. Thomas Zurbuchen about teamwork, innovation and the importance of coming together to engage broader and diverse groups of students in NASA’s mission.



## ON-DEMAND CONTENT

### OSTEM Project: An Introduction to EPSCoR

#### SPEAKERS:

**Jeppie Compton** – NASA EPSCoR National Project Manager

**Dr. Mitch Krell** – NASA EPSCoR Deputy National Project Manager

**Dr. Lester Morales** – NASA EPSCoR Inter-Agency Coordinator

**Grady Smith** – NASA EPSCoR Program Coordinator

**Gail Shine** – NASA EPSCoR Program Coordinator

A discussion on the requirements behind the program, the four different components and the new pilot elements FAST and suborbital Flight opportunities.

### EPSCoR FAST – Applying for Fellows Advancing Science and Technology

#### SPEAKER:

**Chinonye Nnakwe Whitley** – NSF Program Officer with EPSCoR

Dr. Chinonye (Chi-Chi) details the FAST application for the NSF track IV FAST solicitation.

### OSTEM Project: An Introduction to MUREP

#### SPEAKER:

**Torry Johnson** – MUREP Project Manager

The Introduction of MUREP will give you some of the background as to why MUREP was created, what is its purpose and how it goes about supporting Minority Serving Institutions (MSIs) and Under-Represented Minorities (URMs).

In addition, this introduction will share some of the NEW activities and efforts that MUREP has begun by way of partnerships and collaborations with our NASA Mission Directorates.

This introduction will be Informative and spark further conversation that we can have during the Better Together Conference Series.

### OSTEM Project: An Introduction to Next Gen STEM

#### SPEAKER:

**Carrie Olsen** – Next Gen STEM Project Manager

Next Gen STEM is a project within NASA's Office of STEM Engagement that endeavors to reach K-12 students where they are with NASA's missions, content, people and facilities. This video presents the activities, products and opportunities Next Gen STEM offers – told by the talented and committed staff that makes it all happen.

## **OSTEM Project: An Introduction to Space Grant**

### **SPEAKERS:**

**Dr. Rajiv Doreswamy** – Acting Space Grant Manager

**Dr. Erica J. Alston** – Deputy Space Grant Manager

A high-level overview of the National Space Grant College and Fellowship Program. This presentation highlights its goals and objectives, structure, types of awards and sponsored activities and awardee locations across the country.

## **OSTEM Function: Communications – The NASA STEM Story**

### **SPEAKER:**

**Katherine Brown** – Communications Lead

Take a look at how the communications team tells the story behind the inspiring aspects of the Office of STEM Engagement and how they reach communities, students and educators.

## **OSTEM Function: Internships 101 – Proposal to Intern**

### **SPEAKERS:**

**Lynnette Madison** – NASA Internship Manager

**Raquel Marshall** – MUREP Student Engagement and Internships Strategy Lead

**Veronica Seyl Clauson** – Internship Operations and Communications Lead

**Valerie Ellis** – NASA Space Grant Coordinator

Join us for an overview of NASA OSTEM Internships. Learn how to add internships to your proposals and tips for identifying potential students. Mentors will share how interns are supporting their projects and the value to NASA's mission. Current and former interns will talk about their projects and the experience gained through the internship.

## **OSTEM Function: OSTEM IT Tools & Platforms – SharePoint Online and NASA STEM Gateway**

### **SPEAKERS:**

**Doug Goforth** – OSTEM Deputy Manager for IT Tools and Platforms

**Becky Kamas** – OSTEM SharePoint Integration Lead & STEM on Station Activity Manager

The OSTEM IT Tools & Platforms provides an overview of two specific developments in OSTEM's IT world. The first focuses on the use of Sharepoint online for internal communication, file sharing, and integrated calendar capabilities. And the second topic will give a high-level overview of a new system that will offer universal application and registration functionality for NASA STEM Engagements AND will include integrated Performance assessment and evaluation capabilities as a replacement for the current OEPM system.

If you have any questions for this team, please visit the "NASA STEM Gateway" Poster (#26) within this virtual conference's Poster Hall. There, during the live conference event hours, you'll be able to interact with our personnel through a Question & Answer board.

## **OSTEM Function: Performance and Evaluation (P&E) Overview**

### **SPEAKERS:**

**Rick Gilmore** – Performance Assessment and Evaluation Program Manager

**Tara Strang** – Senior Evaluation Specialist

**Clarence Jones** – OEPM Database Coordinator/Technology Coordinator

NASA is enhancing the effectiveness of STEM engagement investments using performance assessment and evaluation-driven processes. Join us for an overview of the Office of STEM Engagement (OSTEM) Performance and Evaluation (P&E) enterprise function and learn about our strategic approach, FY20 accomplishments, FY21 activities and meet the (P&E) Core Team.

## **Agency Info: NASA Shared Services Center Grant Administration Overview**

### **SPEAKER:**

**Libby Romaguera** – NASA Lead Grant Officer

Are you a new OSTEM awardee or an awardee who'd like a refresher on what's required of you as a NASA awardee? Tune into this session to learn about the award process and the requirements that come along with working with NASA.

## **Agency Info: The Needed Precautions When Working with Foreign Nationals or Universities**

### **SPEAKER:**

**Greg Nagurka** – Criminal Investigator

Greg Nagurka from the Office of the Inspector General (OIG) gives information on the implications and precautions needed when working with foreign universities or their researchers.

## **Agency Info: Updates to 2 CFR and the Uniform Guidance**

### **SPEAKER:**

**Chris Murguia** – Senior Analyst

Hey awardees! Did you know that 2 CFR, including the Uniform Guidance in 2 CFR 200, has been recently updated? Tune into this session to learn about significant changes to 2 CFR that will impact your award with NASA.

## **Guest Presentation: Keynote Speaker - Astronaut Kjell N. Lindgren**

### **SPEAKER:**

**Kjell N. Lindgren** – NASA Astronaut

Dr. Kjell N. Lindgren was selected by NASA in 2009. He spent most of his childhood abroad and returned to the U.S. to complete his education and earn a Doctorate of Medicine from the University of Colorado. He is board certified in emergency and aerospace medicine. After serving as the Deputy Crew Surgeon for STS-130 and Expedition 24, he was selected as an astronaut in June 2009 as one of 14 members of the 20th NASA astronaut class. Dr. Lindgren flew on Expedition 44/45 and logged 141 days in space. He participated in two spacewalks and in more than a hundred different scientific experiments.

## **Guest Presentation: Broadening Student Participation**

### **SPEAKER:**

**Moiya McTier** – Ph.D. Astrophysicist, Folklorist, & Science Communicator

Moiya uses astronomy to teach people the skills they need to apply the scientific method to their problems. Through hard work and a significant amount of luck, she was accepted to Harvard University, where she became the school's first ever student to study both astrophysics and folklore & mythology. After graduating, she decided to pursue her Ph.D. in astronomy at Columbia University.

## **Guest Presentation: What the Hack!?**

### **SPEAKERS:**

**Rosemary Smith** – Education Specialist, NASA's Langley Research Center

**Lindsay Thornton** – Sr. Education Programs Specialist, NASA's Langley Research Center

Join us for a deep dive and uncover a new approach to addressing NASA STEM challenges. Let's hack into these obstacles and find innovative solutions to:

- Creating unique opportunities
- Building a diverse future STEM workforce
- Attracting diverse groups of students to STEM
- Supporting students, educators and our partners.

Let's Dare Mighty Things!

## **Guest Presentation: Coffee Hour with Leland Melvin**

### **SPEAKER:**

**Leland Melvin** – Former NASA Astronaut

By popular demand! Leland has a Bachelor of Science degree in chemistry and a Master's degree in materials science engineering. He worked at NASA Langley Research Center in the area of nondestructive testing creating optical fiber sensors for measuring damage in aerospace vehicles, resulting in publications in numerous scientific journals. After hanging up his space boots he was appointed head of NASA Education and served as the co-chair on the White House's Federal Coordination in Science, Technology, Engineering, and Mathematics (S.T.E.M.) Education Task Force developing the nation's 5-year STEM education plan. Leland was the United States representative and chair of the International Space Education Board (ISEB), a global collaboration on learning about space. He uses his life story as an athlete, astronaut, scientist, engineer, photographer, and musician to help inspire the next generation of explorers to pursue Science, Technology, Engineering, Art, and Mathematics (S.T.E.A.M.) careers.

## **Guest Presentation: Knowledge Boost – Impact of COVID-19 on STEM Education**

### **SPEAKERS:**

**Dr. Jennifer Hamilton** – NORC at the University of Chicago

**Dr. Heather Thiry** – University of Colorado Boulder

**Dr. Kristin Horan** – University of Central Florida

The session focuses on the impact that the COVID-19 pandemic has had on delivery and continuity of STEM education at the high school level, the post-secondary level, and in informal learning environments. A panel of subject matter experts will offer observations on impacts and the kinds of resources and support that will help to counteract the disruptions occurring in these educational environments.

## **Guest Presentation: Innovations in STEM Learning**

### **SPEAKER:**

**Dr. Michael H. Levine** – Senior Vice President of Learning and Impact for Noggin

**Dr. Beth Richman** – Senior Learning and Impact Adviser for Noggin

Through a new Space Act Agreement, NASA is collaborating with Noggin on the development of cutting edge aeronautics and space themed products and opportunities for students and families.

## NASA STEM Engagement Leadership



### Mike Kincaid

Associate Administrator, OSTEM

As associate administrator, Mike oversees strategic direction and leadership of NASA's science, technology, engineering and mathematics (STEM) engagement function, which attracts and supports the involvement of students in the realization of NASA's unique missions. Kincaid's office engages America's educators, students and institutions in these unique missions, contributing to NASA's mission success, as well as the nation's overall STEM education ecosystem.



### Kris Brown

Deputy Associate Administrator, OSTEM

Kris Brown serves as deputy associate administrator for the Office of STEM Engagement, providing leadership of NASA's STEM Engagement function and its programs, devoted to creating unique opportunities for students and the public to contribute to NASA's work in exploration and discovery, and to building a diverse future STEM workforce by engaging students in authentic learning experiences with NASA's people, content and facilities.

Brown began her career at NASA Goddard Space Flight Center over 25 years ago as an engineer, devoting most of her career to working on flight programs and as a leader in engineering. As a result, she brings unique perspectives as a STEM practitioner to her role, coupled with a strong commitment and passion for inspiring and engaging young people to pursue STEM education and careers.



### Elaine Ho

Deputy Associate Administrator, OSTEM

Elaine Ho serves as the deputy associate administrator for the STEM Engagement Program at NASA Headquarters. She provides executive leadership for NASA's Office of STEM Engagement (OSTEM) by leading and managing the Congressionally appropriated \$120M portfolio of STEM Engagement projects that benefit students, universities and educational institutions. Ho ensures these projects closely collaborate with NASA's mission directorates to create opportunities for students to contribute to NASA's mission. Previously, she served as the senior advisor for STEM Transformation and successfully led OSTEM to establish an enterprise operating model through the agency's Mission Support Future Architecture Program (MAP).

Ho has a long history of public service as an Air Force officer, criminal prosecutor, and senior executive in the federal government. Elaine also is an expert in diversity and inclusion issues, and has held a number of positions in the White House, including Senior Policy Advisor for Michelle Obama's Let Girls Learn initiative and Chief of Staff of the United States Digital Service.

## Plenary and Special Guest Speakers



### Steve Jurczyk

Acting Administrator of NASA

Steve Jurczyk became NASA's acting administrator on Jan. 20, 2021. Before that, Jurczyk had served as NASA's associate administrator, the agency's highest-ranking civil servant, since May 2018. Before that assignment he had been the associate administrator of the Space Technology Mission Directorate since June 2015. In this position he formulated and executed the agency's space technology programs, focusing on developing and demonstrating transformative technologies for human and robotic exploration of the solar system in partnership with industry and academia. He previously was director of NASA's Langley Research Center in Hampton, Virginia.



### Dr. Marla E. Pérez-Davis

Center Director, NASA's Glenn Research Center

Dr. Marla E. Pérez-Davis serves as the director of the National Aeronautics and Space Administration's John H. Glenn Research Center in Cleveland. In this position, she is responsible for planning, organizing and directing the activities required in accomplishing the missions assigned to the center. The Glenn staff consists of more than 3,200 civil service and support contractor employees and has an annual budget of more than \$900 million. Prior to becoming the director, Dr. Pérez-Davis served as Glenn's deputy director



### Jodi Singer

Associate Administrator, NASA's Marshall Space Flight Center

Jody Singer is the director of NASA's Marshall Space Flight Center in Huntsville, Alabama. Appointed in September 2018, Singer manages one of NASA's largest field installations, with nearly 6,000 on- and near-site civil service and contractor employees and an annual budget of approximately \$3.6 billion. Prior to being named to the position, Singer had served as Marshall acting director since July 2018 and was deputy director from February 2016 to July 2018, assisting the director with the daily management of the center's workforce and operations.



### Dr. Eugene Tu

Center Director, NASA's Ames Research Center

Dr. Eugene L. leads a staff of civil servants and contractors in providing critical research and development support that makes the aeronautics and space missions of NASA and the nation possible. Dr. Tu was most recently director of Exploration Technology at Ames, a position he held from November 2005 until his selection as Ames center director in May 2015. There he led four technology research and development divisions, including two of NASA's critical infrastructure assets: the consolidated arc jet testing complex and the agency's primary supercomputing facility.



### Clayton Turner

Center Director, NASA's Langley Research Center

Clayton Turner is the Director of NASA's Langley Research Center, Hampton, Virginia. He leads a diverse group of civil servant and contractor scientists, researchers, engineers and support staff, who work to make revolutionary improvements to aviation, expand understanding of Earth's atmosphere, develop new technologies for space exploration, and contribute to NASA's broader exploration mission. Turner has served the agency for more than 29 years. He has held several roles at NASA Langley, including systems engineer, Chief Engineer, Engineering Director, Associate Center Director, and Deputy Center Director.

## Plenary and Special Guest Speakers continued



### Dr. Thomas Zurbuchen

Associate Administrator, NASA's Science Mission Directorate

Dr. Thomas Zurbuchen is the Associate Administrator for the Science Mission Directorate at NASA's Headquarters in Washington, D.C. Previously, Zurbuchen was a professor of space science and aerospace engineering at the University of Michigan in Ann Arbor. He also was the university's founding director of the Center for Entrepreneurship in the College of Engineering. Zurbuchen's experience includes research in solar and heliospheric physics, experimental space research, space systems, and innovation and entrepreneurship



### Chris Cassidy

NASA Astronaut

Christopher J. Cassidy was selected as an astronaut by NASA in 2004 and is a veteran of two space flights, STS-127 and Expedition 35. During STS-127, Cassidy served as a Mission Specialist and was the 500th person in history to fly into space. This mission delivered the Japanese Experiment Module Exposed Facility (JEM-EF) and the Experiment Logistics Module Exposed Section (ELM-ES) to the station. For Expedition 35, Cassidy and the European Space Agency (ESA) astronaut Luca Parmitano had their unplanned spacewalk to replace a pump controller box cut short when Parmitano had cooling water leak into his helmet. Cassidy, a U.S. Navy SEAL, has been deployed twice to the Mediterranean and twice to Afghanistan. He has been the recipient of Bronze Star with combat 'V' and Presidential Unit Citation for leading a nine-day operation at the Zharwar Kili Cave on the Afghanistan/Pakistan border. Cassidy recently served as Commander on the International Space Station for Expedition 63.



### Dr. Eileen Hulme

Vice President for Enterprise Development and Regional Ventures at Indiana Wesleyan University

Dr. Eileen Hulme possesses 35 years of experience in higher education administration. She has served as a professor in the doctoral program in higher education at Azusa Pacific University (APU) and as vice president for student life at both Baylor University in Waco, Texas, and George Fox University in Newberg, Oregon. Additionally, she has taught at both the master's and doctoral levels for the past 15 years and co-directed the M.S. in Student Services Administration Program at Baylor University. As a 2001 Fulbright Scholar in Germany, Hulme became passionate about preparing the next generation of justice-oriented global leaders. During her tenure at APU, Hulme was awarded the Chase Sawtell Inspirational Faculty Member of the Year and conducted research on the development of curiosity in college students, emerging trends in the academy, and a strengths-based approach to leadership. Hulme consults with organizations and universities across the U.S. regarding the future of higher education.





### **Dr. Julie Johnson**

Program Director in the Division on Research and Learning at the National Science Foundation

Dr. Johnson works with the Advancing Informal STEM Learning (AISL), Innovative Technology Experiences for Students and Teachers (ITEST) and the Faculty Early Career Development (CAREER) programs. Prior to coming to NSF, Johnson was a middle school science and math teacher, worked in museum education, and was the chief operating officer of an aquarium. She is experienced in performance assessment, creating organizational systems, program development, evaluation, group facilitation, and effective communication with diverse external stakeholders. Johnson speaks regularly on issues related to broadening participation in STEM.



### **Dr. Tori Rhoulac Smith**

Program Director in the Division of Human Resource Development (HRD) of the National Science Foundation's Directorate for Education and Human Resources (EHR)

Dr. Tori Rhoulac Smith co-leads the NSF INCLUDES Implementation Team and leads the HRD CAREER program. She also manages the NSF INCLUDES Coordination Hub and the STEM-US Broadening Participation Research Center, which is part of the Historically Black Colleges and Universities -Undergraduate Program portfolio of awards. She was formerly Director of Undergraduate Studies and Assistant Professor of Civil Engineering in the College of Engineering, Architecture, and Computer Sciences at Howard University where she oversaw recruitment, advising, career development, and retention for undergraduate students in seven academic programs and taught undergraduate and graduate coursework with a focus on integrating educational innovation into course curricula. Dr. Rhoulac Smith earned a B.S. in Civil Engineering from Howard University, and M.S. and Ph.D. degrees in Civil Engineering from North Carolina State University.



### **Caitlin Nolby**

Director for the North Dakota Space Grant Consortium (NDSGC) and North Dakota NASA EPSCoR.

Caitlin is also a Research Assistant Professor in the Department of Space Studies at the University of North Dakota (UND). Nolby holds a B.S. in Astrophysics and an M.S. in Space Studies. Nolby is currently pursuing a Ph.D. in Teaching and Learning with an emphasis in Higher Education. Nolby's research interests include: Underserved and Underrepresented Populations in STEM, LGBTQ+ in Higher Education, STEM Education, and NASA and STEM Historiography and Historical Analysis.



### **Paulo Oemig**

Director of the New Mexico Space Grant Consortium (NMSGC) and the New Mexico NASA EPSCoR program.

Paulo is a College Assistant Professor in the College of Education at New Mexico State University. He teaches courses in research methods, bilingual education and methods of teaching science. His research areas are integration of STEM education and the development of science literate identities, particularly among underrepresented students. Paulo completed an Albert Einstein Distinguished Educator Fellowship with NASA, has five years of experience as a chemist and ten years of experience as a STEM educator. Paulo Oemig completed a bachelor's degree in chemistry and a doctoral degree in science and bilingual education.



### **Rabiah Mayas**

Ruth D. and Ken M. Davee Vice President of Education and Guest Experience at the Museum of Science and Industry, Chicago (MSI)

Rabiah leads the Museum's Welcome to Science Initiative, which connects the Museum's core audiences – youth, families, educators, and adults – to high-quality, relationship-based STEM programming.

Prior to this role, Rabiah served as the Associate Director of Northwestern University's Science in Society, a research center focused on interdisciplinary collaborations in support of collective impact STEM education models. She was also previously the Director of Science and Integrated Strategies at the MSI. She also served as the Science Director for Science Chicago, a yearlong festival that engaged more than 140 partners and highlighted STEM through nearly 1,000 public programs.

Rabiah was raised in the Washington, D.C. area and earned a B.S. in Biochemistry and Molecular Biology and a certificate in Modern Languages and Linguistics from the University of Maryland Baltimore County, where she was also Meyerhoff Scholar. She later earned a Ph.D. in biochemistry and molecular from the University of Chicago. She is a co-PI of the Center for the Advancement of Informal Science Education (CAISE) and is a member of numerous nonprofit and educational advisory committees and board. Across her professional and personal endeavors, Rabiah is committed to working toward equitable access to STEM as a mechanism for securing positive academic, economic, and health futures.



### **Derrick Pitts**

Chief Astronomer, Planetarium Programs Director, The Franklin Institute

Derrick Pitts has been associated with The Franklin Institute since 1978, designing and presenting many of the museum's public programs and exhibits. A NASA Solar System Ambassador since 2010, he also served as NASA's first 'Astrobiology Ambassador' for the UNCF's Astrobiology Partnership Program and at the invitation of Space Shuttle astronauts, has flown items of his own creation on two different flights. He specializes in creating community collaborative outreach programs that connect underserved audiences with authentic science experiences and practitioners. Pitts appears regularly as a science content expert for most national and international media outlets including NOVA, BBC, Discovery Channel, Science Channel, History Channel, and Curiosity Stream. He has received numerous awards including honorary degrees from LaSalle University, Rowan University and Wagner Free Institute. Pitts serves as a Board member for his alma mater St. Lawrence University, Astronomical Society of the Pacific and Associated Universities, Inc. His Twitter handle is @CoolAstronomer and his motto is 'Eat, breathe, do science. Sleep later.'



### **Dr. Cassandra Runyon**

Associate Professor, Geology, College of Charleston Director – NASA SC Space Grant Consortium and SC NASA EPSCoR

Dr. Cassandra Runyon graduated from the University of Hawaii in 1988 with her Ph.D. in Geology and Geophysics. Following graduation, she was a National Research Council Postdoctoral Fellow at NASA Johnson Space Center where her research focused on understanding the nature and origin of volcanic features on the terrestrial planets. She is currently an Associate Professor of Geology at the College of Charleston, Director of the NASA SC Space Grant Consortium and SC NASA EPSCoR program and the education/public engagement lead for the Center of Lunar and Asteroid Surface Science (CLASS) NASA Solar System Exploration Research Virtual Institute (SSERVI) team. Her passion is helping to provide access to STEM for all audiences, including those with visible and invisible disabilities.

**Booths and Posters will be open throughout the conference and staffed during the following times:**

- Day 1 – Networking and Exploration Time 2:30 pm – 3:30 pm ET
- Day 1 – Networking and Exploration Time 5:00 pm – 6:00 pm ET
- Day 2 – Networking and Exploration Time 3:45 pm – 4:15 pm ET
- Day 2 – Networking and Exploration Time 5:30 pm – 6:00 pm ET

## Exhibit Hall

Booth #	Booth Title
1	NASA Internships: Mentoring the Artemis Generation
2	Next Gen STEM
3	Artemis Student Challenges
4	MUREP
5	X-Planes
6	Science Activation Program
7	Commercial Crew Program
8	James Webb Telescope
9	Human Exploration and Operations Mission Directorate
10	Lunar Surface Innovation Initiative
11	Mars 2020
12	Science Mission Directorate Earth Science

## Poster Hall

Poster #	Poster Title
1	STEM Activities in the California Region
2	STEM Activities at Glenn Research Center
3	STEM Activities at Goddard Space Flight Center
4	STEM Activities at the Jet Propulsion Laboratory
5	STEM Activities at Johnson Space Center
6	STEM Activities at Kennedy Space Center
7	STEM Activities at Langley Research Center
8	STEM Activities in the Southeast Region
9	OSTEM @ NASA GSFC: Greenbelt
10	NASA IV & V Robotics Outreach
11	Climate Change Research Initiative
12	Wallops Flight Facility Suborbital and Special Orbital Projects Directorate (SSOPD) Educational Programs - Authentic STEM Engagement Opportunities based on missions and research
13	Human Exploration & Operations Mission Directorate STEM Activities
14	Creating Virtual Spaces for Learning with NASA
15	Web stories convey transformative internship experiences
16	Established Program to Stimulate Competitive Research (EPSCoR)
17	Space Grant Program
18	Astro Camp Program
19	MAIANSE - Minority University Research and Education Project (MUREP) for American Indian and Alaska Native Science, Technology, Engineering and Mathematics (STEM) Engagement program
20	NASA International Internship Program
21	NASA Fellowship Opportunities
22	NASA STEM Partnerships
23	Connecting with NSF INCLUDES
24	CoSTEM & FC-STEM
25	Performance and Evaluation Team
26	NASA STEM Gateway System

# NAVIGATING YOUR VIRTUAL CONFERENCE EXPERIENCE

## GETTING STARTED

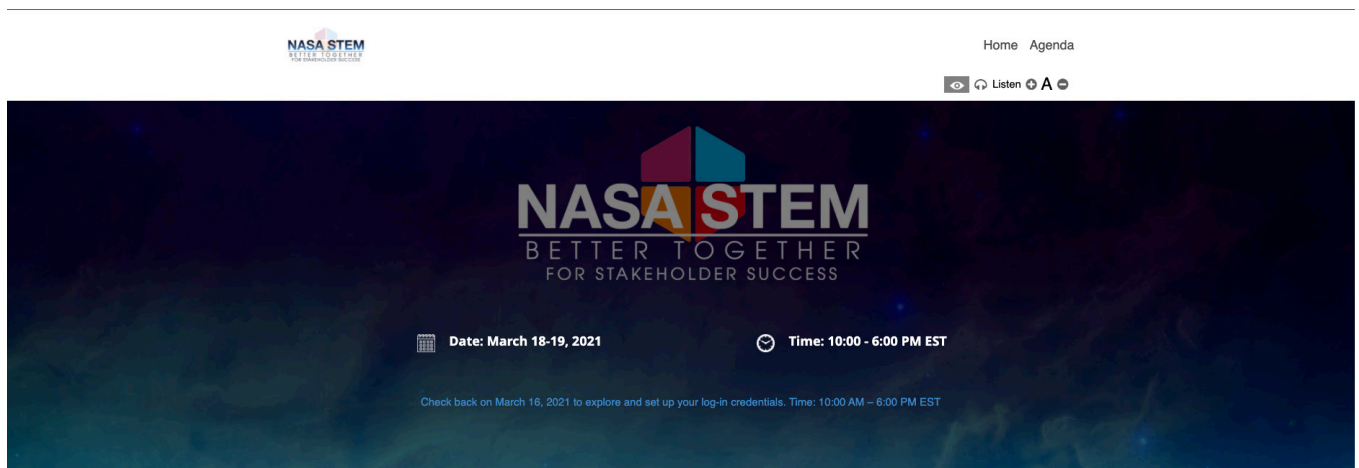
Use this guide as a tool to make the most of your participation in the NASA STEM Better Together for Stakeholder Success virtual conference. This manual is your “how to” navigation guide as you explore the virtual platform’s exhibit and poster halls, as well as the networking lounge. Information on how to use the chat function and Zoom can also be found within this guide.

## MAIN PAGE

Type in the URL: [STEMTogether2.vfairs.com](https://STEMTogether2.vfairs.com) in the address bar of your browser to visit the online event. We recommend that you use either Chrome, Safari or Firefox for best performance.

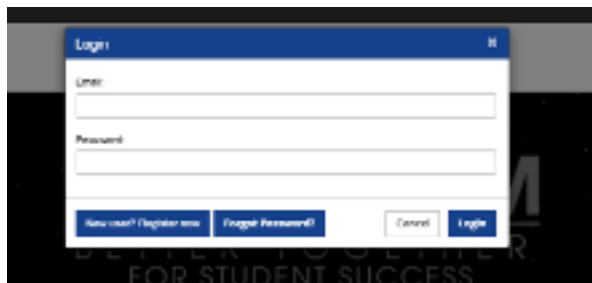
## LOGGING IN

To login, you need to click on ‘Login’.



### Welcome

Enter your username & password and click on ‘Login’.



You will then see a disclaimer message. This is the same language that you see when you log into your NASA computer. Just close the disclaimer box by clicking on the “x” in the upper right corner.

# NAVIGATING THE LOBBY

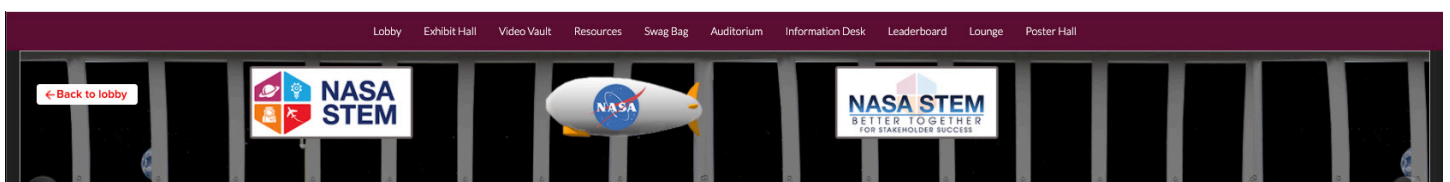
Welcome to NASA STEM: Better Together for Stakeholder Success!  
Your Experience Begins Here!

The signs and billboards located around the lobby are all “clickable” and take to the various virtual areas. Starting at the top, on the jumbo-tron, click the welcome video to kick off your journey! On the left you can access a PDF of the Conference Guide or access the Networking Lounge. In the middle of the screen, you can access the auditorium – this is where all the plenary sessions will take place. On the right, you can learn about the exciting STEM work happening across the agency by visiting our Poster and Exhibit Halls.



## NAVIGATION BAR

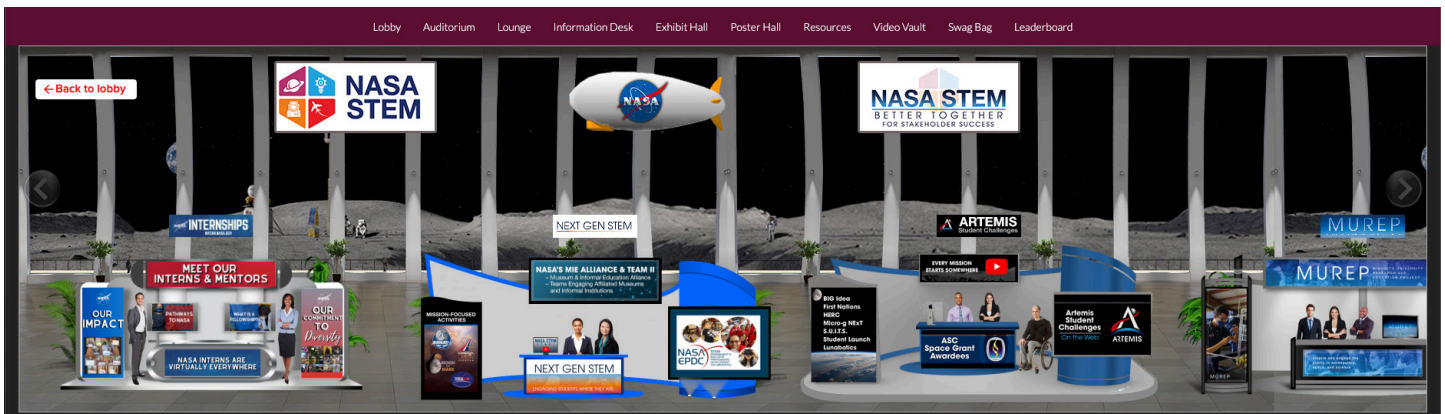
In every room, there is also a navigation bar that will enable you to explore everything the conference has to offer!



# NAVIGATING THE EXHIBIT HALL

## Exhibit Booths:

To view all of the exhibitor booths, move your cursor to scroll left and right.



To visit a booth, click on a booth from the hall or click on the exhibitor name from the Exhibitors Index link.

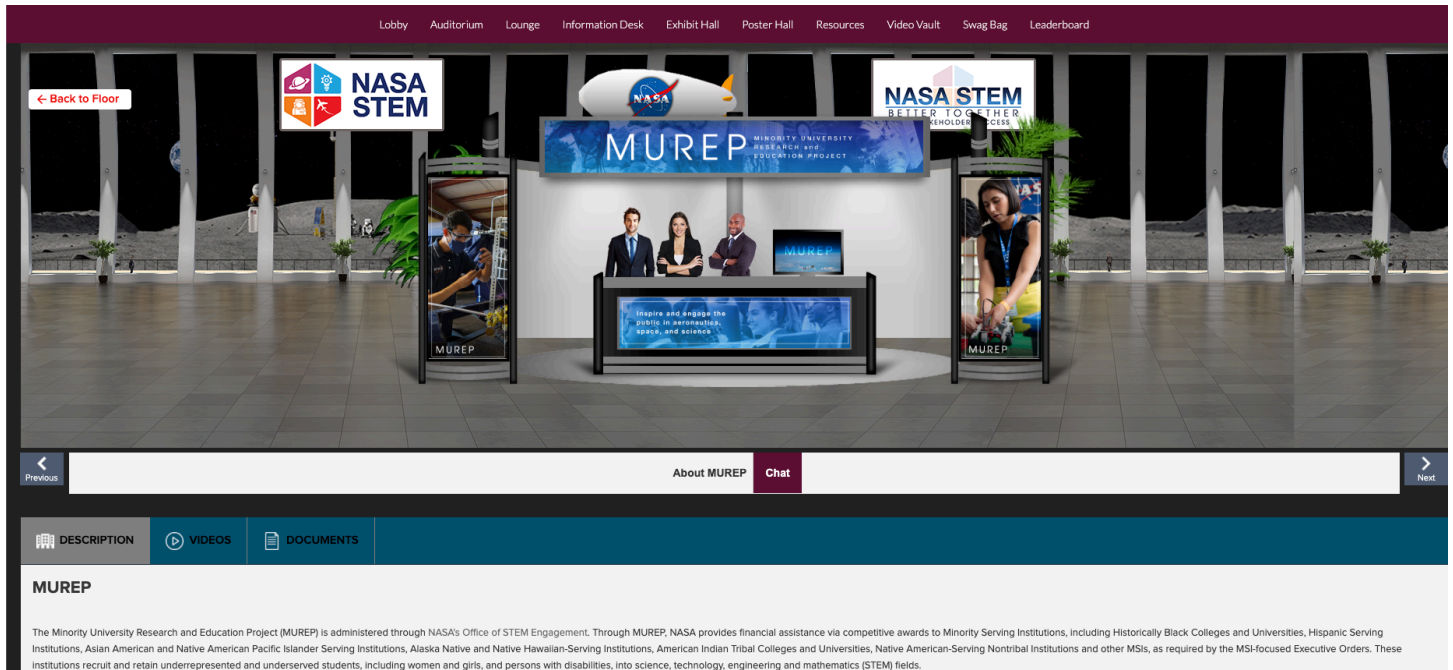
## Exhibitor Index:

On the bottom left of the hall, you will find an Index that lists the names of all exhibitors for easy navigation. You can simply scroll through this list and click on the relevant name to access the booth.

Exhibitors Index
ARMED's STEM Activity Portfolio
Artemis Student Challenges
Commercial Crew Program
Human Exploration and Operations Mission Directorate
James Webb Space Telescope

## Booth View:

Clicking on a specific booth will take you inside, as seen below.



## Description:

A brief profile of the booth organization/team.

## Other Active Participants:

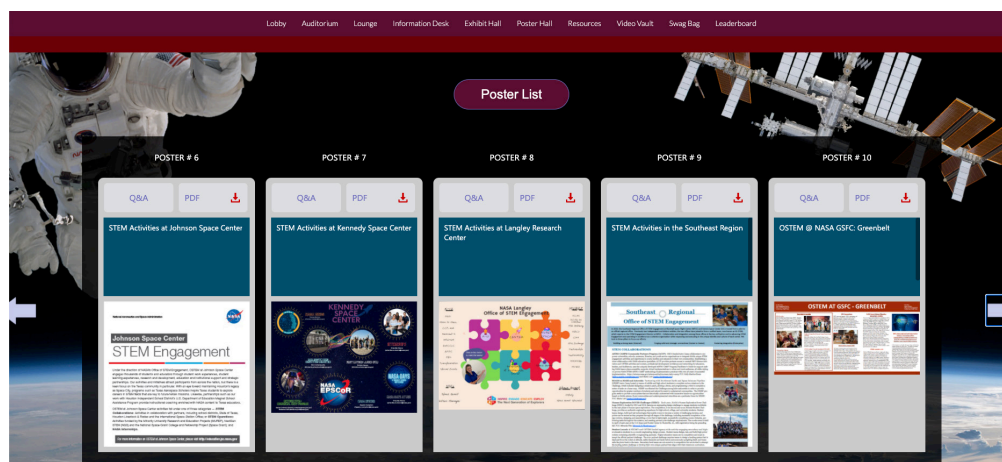
On the bottom left part of the screen, there will be a list of other conference participants available online and visiting the booth.

## NAVIGATING THE POSTER HALL

### Posters:

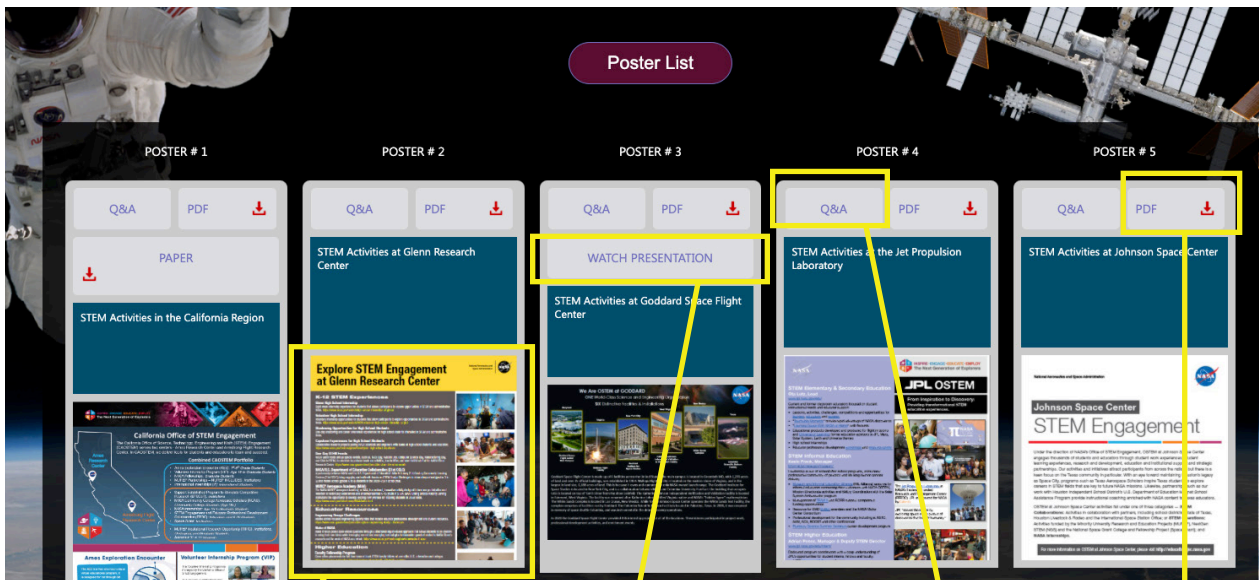
The Poster Hall allows attendees to quickly browse poster thumbnails on display.

To visit a poster, click on the poster in the hall to learn more.



## Poster View:

Clicking on the poster will give you access to all of the poster's information and resources, as seen below, including a thumbnail of the poster, any media or video resources that are associated, and a chat feature.



Clicking on the thumbnail of the poster will open a pop-up and start the presentation

Video presentation of e-poster or presentation

Q&A section

Download PDF

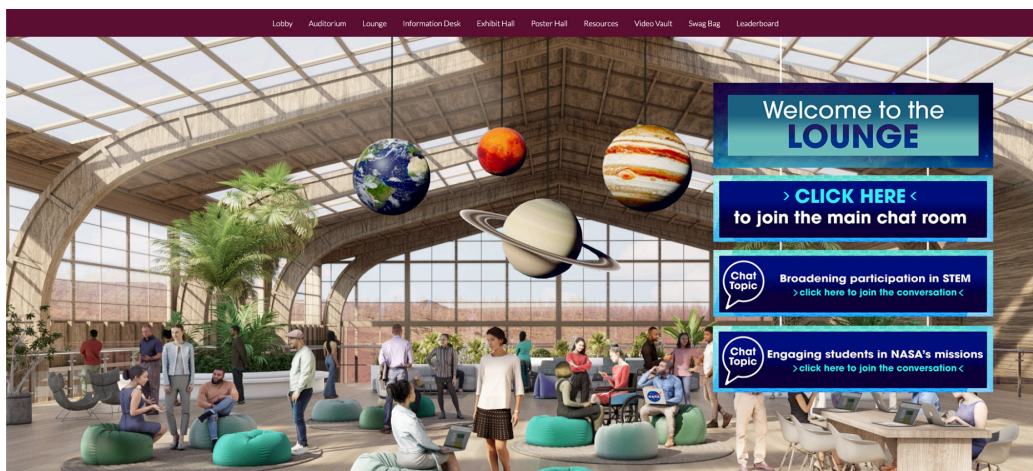
## Questions and Chatting in the Poster Hall:

Clicking on the 'Q&A' button will open up a text-based chat where a conversation can take place between the poster owner and the visitor.

## NAVIGATING THROUGH THE NETWORKING LOUNGE

### Networking Lounge:

The Networking Lounge offers the opportunity to informally chat with colleagues within the main chatroom or topic-based chats.

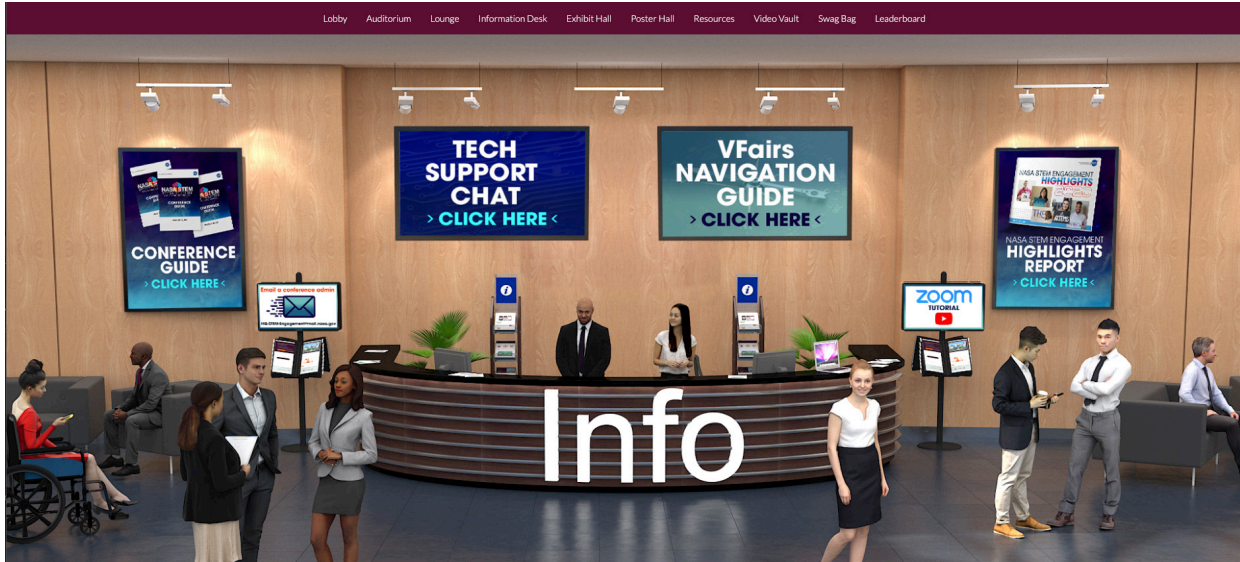




# NAVIGATING THE HELP DESK

## Help Desk:

The Help Desk provides access to important conference resources, including the conference guide, tech support, and more. Simply click on the resource you wish to view to access it.



# CHAT INSTRUCTIONS

## Public Chat

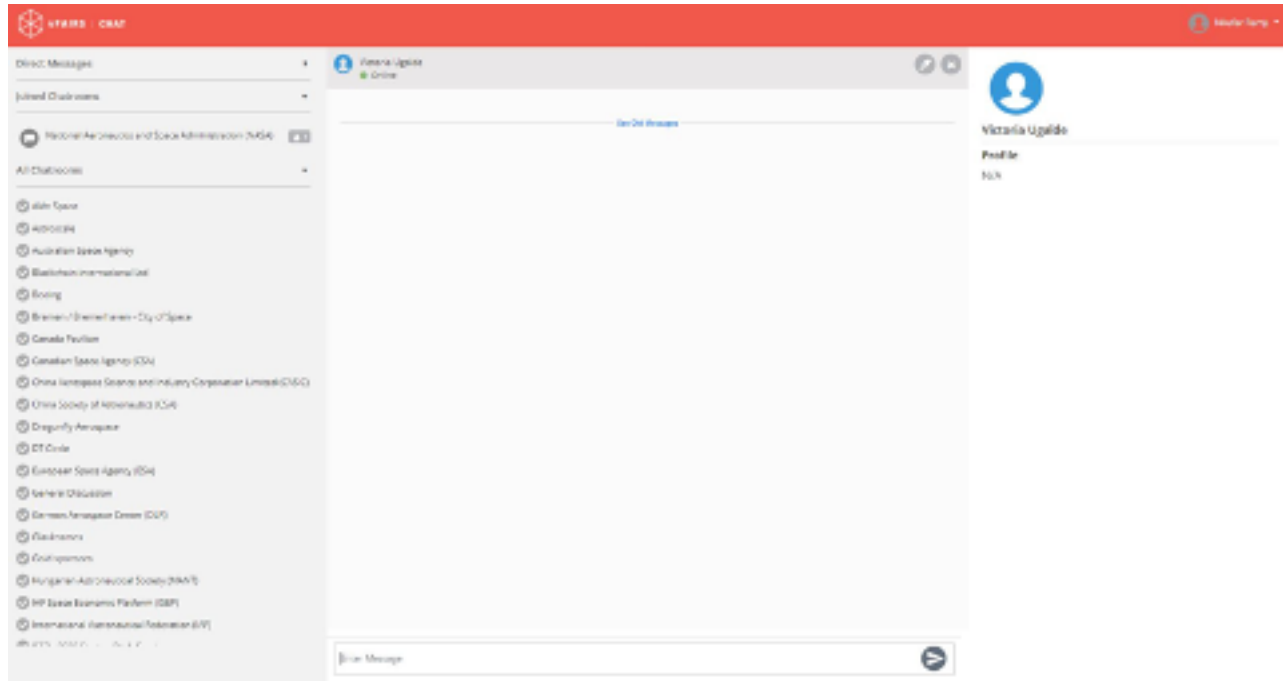
Click on the 'Chat' tab and you will be taken to the networking room. You can also go to chat using the 'Networking' tab on the top navigation bar. Both Reps and visitors can have public as well as private chat options.



The middle space in the above image is how the public chat will appear for all to see and for anyone to participate in. Remember, messages sent in the public chat area will be visible to all.

## Private Chat

To initiate a private chat with someone, click on “Chat Now,” located in front of the user’s name in online user section (towards right side). This will open a private chat window for that specific user.



To initiate Audio/Video chat, you can click on the call or video call icon in front of the user’s name.

**To get back to the conference platform, click back to the STEMTogether2 Tab in your browser.**

## CHAT ROOM SUPPORT

In order to have a seamless chat experience for the NASA STEM Better Together for Stakeholder Success, please keep the following guidelines in mind to minimize technical issues.

1. When using the VFAIRS platform, it is recommended to disconnect from the NASA VPN and to use your direct internet connection. Your home office WiFi will give you the best functionality. If you need to be connected to VPN, and you experience difficulty with VFAIRS, try to disconnect from VPN during the time when you are using the chats and listening to various sessions only.
2. If you are a PC user, ensure all the updates are installed and you have rebooted your computer.
3. If you are a MAC user, check for OS updates and make sure all OS updates are applied.
4. The preferred browsers for VFAIRS are Microsoft Edge, Google Chrome, Safari and Mozilla Firefox 3. You will want to ensure the latest version of the browser you plan to use is updated and installed.
5. It is recommended by VFAIRS to disable firewall or any related software that might be blocking p2p traffic.
6. When you are not using a chatroom, please exit the chatroom.

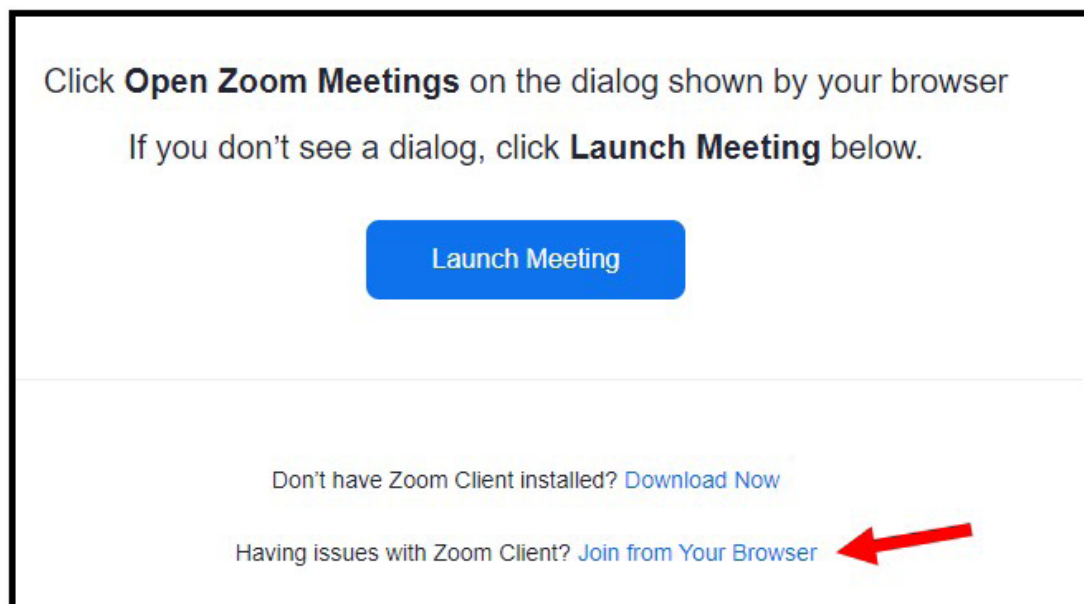
7. If necessary, add these wildcards to whitelist for normal chat: [\\*.pubnub.com](#), [\\*.pndsn.com](#), [\\*.pubnub.net](#) and [\\*.pubnub.io](#) For audio/video chat, if needed, add these wildcards to whitelist: [\\*.tokbox.com](#), [\\*.opentok.com](#).
8. Please note that audio/video chats are not supported on Internet Explorer. Please use Microsoft Edge, Google Chrome, Safari or Mozilla Firefox 3.
9. If there are problems with audio/video going through, please quit any other applications that might be using your bandwidth such as Skype or Teams.
10. If there are problems with audio/video not going through, please make sure the person you are trying to connect with is also adhering to the above-mentioned guidelines.
11. If for some reason the call session does not quit, please quit the conversation and try again by refreshing the browser.

## USING ZOOM

### To access a Zoom Session

Live sessions will take place in Zoom rooms. Please note that the NASA CIO has approved the use of the browser version of Zoom for NASA participants attending this event.

1. Click on the screen in the virtual auditorium (where it says “Click here for presentations”).
2. Scroll through the agenda to find the webinar that you wish to attend.
3. Click “Join” button next to the date/time information for the session.  
NOTE: The join button will not appear until right before the event.
4. A new tab will open for Zoom -- click “Join from Your Browser”.



1. Enter your name, click on the box next to “I’m not a robot.”
2. Complete the reCAPTCHA and click “Next.”
3. Click on “Join.”

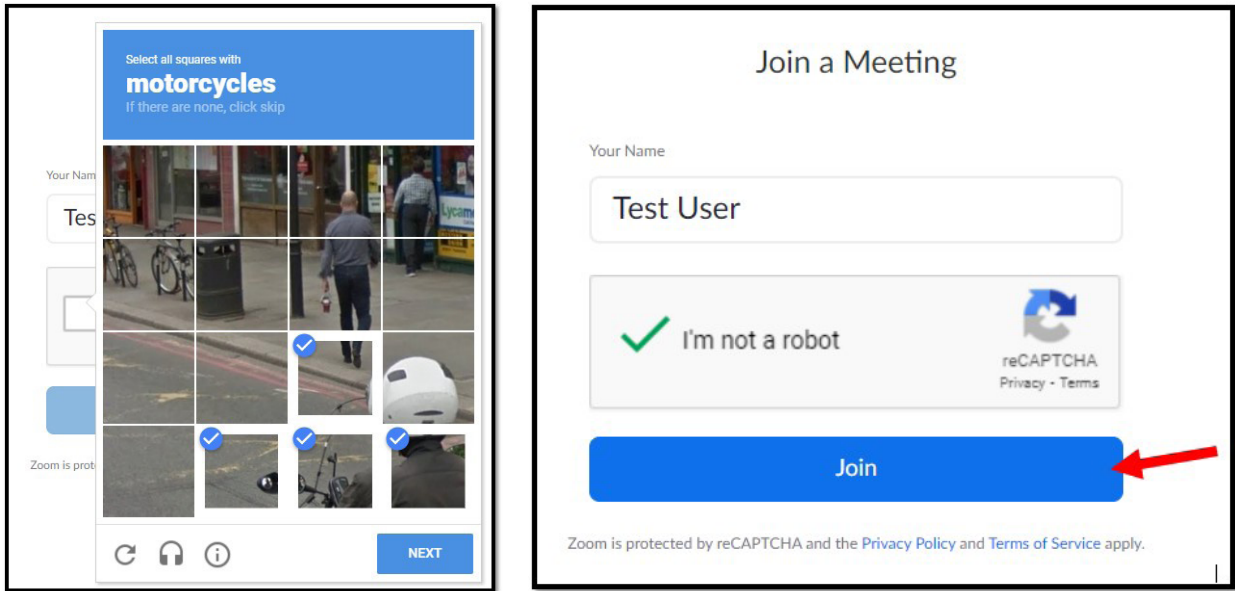


Figure 2: Joining Audio

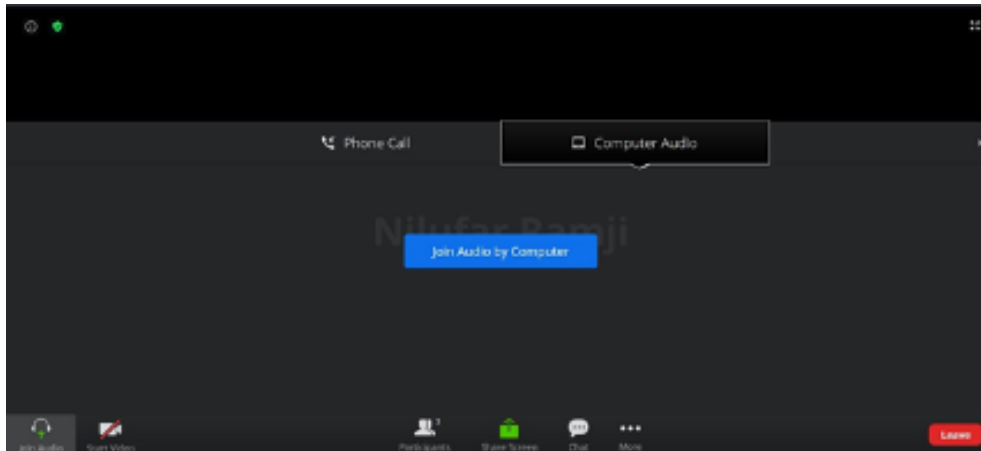
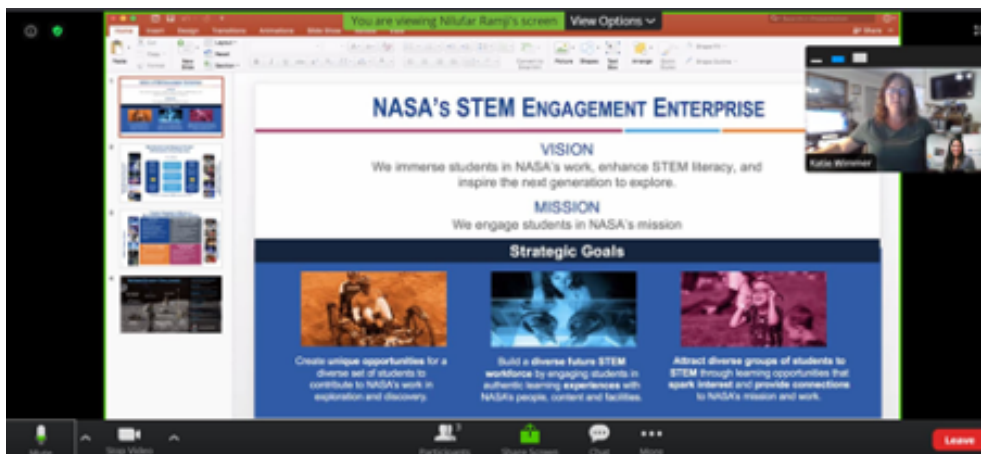


Figure 3: Browser meeting interface



## Interacting in a Zoom Session

In a Zoom webinar, you can interact with the host, co-hosts, and panelists by typing in chat or utilizing the I/O tool.

### Send Messages with Chat

1. Click the “Chat” button to open the chat panel.
2. Type your message in the text box at the bottom of the panel.
3. Press Enter to send your message.

## Interacting with the I/O Tool

Due to the number of participants, all participant microphones will remain muted in all plenary, concurrent and break-out sessions. The presenters and moderators will depend on the communication in the chat window and I/O tool to keep the session interactive.

### Accessing the I/O Tool:

1. Open our I/O Tool by scanning the bar code with your mobile device or entering this URL into your mobile browser: <https://larc.cnf.io/>
2. Select the session from the list to participate using the I/O Tool.



Thursday, March 18
<b>NASA STEM Better Together – James Webb Space Telescope Breakout Session</b> 1:15pm – 4:45pm
<b>NASA Stem Better Together – Commercial Crew Program Breakout Session</b> 1:15pm – 4:45pm
<b>NASA STEM Better Together – X-Plane Breakout Session</b> 1:15pm – 4:45pm
<b>NASA STEM Better Together – Artemis Gateway Breakout Session</b> 1:15pm – 4:45pm
<b>NASA STEM Better Together – Mars 2020 Breakout Session</b> 1:15pm – 4:45pm
<b>NASA STEM Better Together – Lunar Surface Innovation Initiative Breakout Session</b> 1:15pm – 4:45pm

Friday, March 19
<b>STEM Better Together: Addressing Diversity, Equity, and Inclusion Challenges in Informal Education Discussion</b> 2:30pm – 3:30pm
<b>STEM Better Together: Discussion: Addressing Diversity, Equity, and Inclusion Challenges in Higher Education Discussion</b> 2:30pm – 3:30pm
<b>STEM Better Together: Leveraging Networks to Address DEI Discussion</b> 2:30pm – 3:30pm
<b>STEM Better Together: Opportunities to Partner with MUREP Discussion</b> 2:30pm – 3:30pm
<b>STEM Better Together: Trends Affecting Higher Education Students of Color Post-COVID Discussion</b> 2:30pm – 3:30pm



## Leave a ZOOM Session

1. Click the “Leave Meeting” link in the lower right corner of the window.
2. In the confirmation pop-up, click “Leave Meeting” to exit.
3. In your browser, click back over to the STEMTogether2 tab.

<https://assets.zoom.us/docs/user-guides/zoom-rooms-full-user-guide.pdf>

[https://www.youtube.com/embed/ygZ96J\\_z4AY?rel=0&autoplay=1&cc\\_load\\_policy=1](https://www.youtube.com/embed/ygZ96J_z4AY?rel=0&autoplay=1&cc_load_policy=1)

## We hope you enjoy the event!

On behalf of the NASA STEM Better Together Conference Planning Team, we express our sincere appreciation for your attendance.

Please feel free to reach out to our team at any point throughout the conference for assistance at [HQ-STEM-Engagement@mail.nasa.gov](mailto:HQ-STEM-Engagement@mail.nasa.gov)

During the conference, reach out to [stemtogether2@getvfairs.io](mailto:stemtogether2@getvfairs.io) for technical assistance regarding the platform or accessing the sessions.



# INSPIRE - ENGAGE - EDUCATE - EMPLOY The Next Generation of Explorers

National Aeronautics and Space Administration

**NASA Headquarters**

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Washington, DC 20546

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