

38th Regional Meeting of the Southeastern Association for Science Teacher Education



October 6 – 8, 2023
Ziff Education Building
Florida International University
11200 SW 8th Street
Miami, FL 33199
(Last Updated: Sep 29, 2023)

Science Education: Learning at the Crossroads of Science, Society, and Students

Conference at a Glance	
Friday, October 6	
4:00pm	Hotel Check-in (Courtyard Miami at Dolphin Mall)
5:00pm – 7:00pm	Friday Evening Social at Buffalo Wild Wings Come and go, Dutch treat. Coordinate on GroupMe!
Saturday, October 7	
8:00am – 8:30am	Registration Check-In & Continental Breakfast (Conference Welcome in Atrium @ 8:20am)
8:30am – 9:30am	Concurrent Session 1
9:30am – 9:45am	Break
9:45am – 10:45am	Concurrent Session 2
10:45am – 11:00am	Break
11:00am – 12:00pm	Concurrent Session 3
12:00pm – 12:30pm	Poster Session and Networking
12:30pm – 1:15pm	Lunch
1:15pm – 2:00pm	Keynote Address
2:00pm – 2:30pm	Business Meeting
2:30pm – 2:45pm	Break
2:45pm – 3:45pm	Concurrent Session 4
3:45pm – 4:00pm	Break
4:00pm – 5:00pm	Concurrent Session 5
5:00pm	Conference Closing in Atrium
Sunday, October 8	
8:00am – 10:00am	Working Group Meeting Sessions (Use GroupMe to gauge interest and choose a meeting place)
11:00am	Hotel Check-out (Courtyard Miami at Dolphin Mall)

President's Welcome

On behalf of the SASTE Executive Committee, I want to welcome you all to the 38th meeting of the Southeastern Association for Science Teacher Education! Whether you're joining us in person at Florida International University or virtually from elsewhere in the world, it's my sincere hope that you'll take this opportunity to connect with your regional colleagues, share your knowledge about science teacher education, and engage in conversations about our profession and its impact on student learning. Our region officially includes the southeastern states of Alabama, Florida, Georgia, Louisiana, Mississippi, and North Carolina, but we welcome any science teacher educator that wishes to participate in our regional events. Our mission is to support those involved in the professional development of science teachers and foster their leadership as change agents throughout the southeastern United States. This year's conference theme, *Science Education: Learning at the Crossroads of Science, Society, and Students*, was chosen to reflect the challenges and opportunities faced by science teacher educators as educational issues move toward the center of the national spotlight, particularly for members of our region. I have no doubt that this year's meeting will be a wonderful opportunity to share ideas, best practices, and hopes for our future work together!

Sincerely,



Joshua A. Ellis, Ph.D.
President, Southeastern Association for Science Teacher Education (2023)

Executive Committee

President:	Joshua Ellis, Louisiana State University
President-Elect:	Rachel Gisewhite, University of Southern Mississippi
Secretary-Treasurer:	Jennifer Stark, University of West Florida
ASTE Regional Representative:	Stacey Britton, University of West Georgia

Special Thanks

Conference Organizers

Jennifer Stark (Secretary-Treasurer of SASTE, University of West Florida)
Shana Lee (Past President of SASTE, Mississippi State University)
Monica Delgado (Program Assistant, Florida International University)
Stephanie Cox (Executive Director for Advancement, Florida International University)
Nateli Rodriguez (Donor Events Officer, Florida International University)

Presiders

Gina Childers, Bryce Coon, Sherwin Jose, David Kumar, Sharon Moffitt, Maria Fernandez,
Justice Ejike, Sumitra Himangshu-Pennybacker, Jennifer Stark, Andrew McIntosh

Description of Session Types

Traditional Paper Presentations

Each one-hour session will consist of 2-3 individual papers. Each presenter or group of co-presenters will be allotted 20 minutes – 15 minutes for the presentation and 5 minutes for questions and discussion. A session presider will manage the time and facilitate transitions between presenters.

Works in Progress

Each one-hour session will consist of 2-3 individual papers, similar to the Traditional Paper Presentations session type. However, papers in this session type may be at various stages of completion, and presenters may invite the audience to provide guidance or constructive feedback on their work. Presenters will be allotted 20 minutes, which will be managed by a session presider.

Advice from the Trenches

Presentations in this session type will share work that draws upon pedagogical innovations, policy recommendations, or other scholarship that may not have a corresponding paper. Each presenter will have 20 minutes to share their advice and engage the audience. A session presider will manage the time and facilitate transitions between presenters.

Poster Presentations

This is a single, non-concurrent session that will take place just before lunch. During this 30-minute session, poster presenters will stand by their posters to engage participants in discussion about their work. Attendees are encouraged to engage both the poster presenters and the other attendees during this time.

Access for Virtual Participants

We aim to provide the best hybrid experience possible in this year's meeting. Only the Saturday, October 7 sessions are hybrid, with the exception of the poster sessions. The [Zoom](#) virtual meeting platform will be used by our virtual attendees to participate in the meeting. All virtual presentations are synchronous, and all presenters (both in-person and virtual) are responsible for sharing their slides using the share screen function within Zoom.

Please use the following links to join our sessions. To honor the association, please do not distribute these links to persons who are not current members of SASTE and have not registered for the conference.

Zoom Room 1: ZEB 150 and ZEB 120

Join Zoom Meeting

<https://lsu.zoom.us/j/93445185818?pwd=VE5uSHUrS2ZpSjBoa2d1Si9TMkExdz09>

Meeting ID: 934 4518 5818

Passcode: 159108

Zoom Room 2: ZEB 101

Join Zoom Meeting

<https://uwf.zoom.us/j/86316391219?pwd=YmkvSVdBTmlvYW9PcGZoTTVSVGh1dz09>

Meeting ID: 863 1639 1219

Passcode: 665892

Registration, Check-In, & Continental Breakfast – 8:00am – 8:30am

ZEB Atrium

- Please be sure to pick up a name badge at check-in before you start your day.
- Join us at 8:20am in the Atrium to help us kick off the SASTE 2023 meeting!

Concurrent Session 1 – 8:30am – 9:30am

ZEB 150 – Traditional Paper Presentations (Presider: Maria Fernandez)

8:30am – 8:50am	Cybersecurity Education: Exploring K-12 Teachers' Definitions of Cybersecurity (Virtual) <i>Oluwatosin Daramola, Texas Tech University</i> <i>Gina Childers, Texas Tech University</i> <i>Weverton Ataide Pinheiro, Texas Tech University</i> <i>C. Lindsay Linsky University of North Georgia</i> <i>Bryson Payne, University of North Georgia</i> <i>Jack Byers, Texas Tech University</i> <i>Daniel Baker, University of North Georgia</i>
8:50am – 9:10am	Preservice Teachers' Development of Knowledge for Teaching with Online Technologies through a Peer Teaching Project <i>Maria L. Fernandez, Florida International University</i> <i>Cristian Florian Schreiber, Florida International University</i> <i>Melvin Kollie, Florida International University</i>
9:10am – 9:30am	Exploring Instructor Perceptions of Teaching Specialized Content Courses in Different Modalities: Evidence from journal reflections (Virtual) <i>Preethi Titu, Kennesaw State University</i> <i>Jessica Stephenson Reaves, Kennesaw State University</i> <i>Anna Maria Arias, Kennesaw State University</i> <i>Soon C. Lee, Kennesaw State University</i>

ZEB 101 – Works in Progress

(Presider: Jennifer Stark)

8:30am – 8:50am	Field-based Environmental Education Courses for Pre-service Non-formal Educators (Virtual) <i>Molly Nation, Florida Gulf Coast University</i> <i>Jessica Marcolini, Florida Gulf Coast University</i> <i>Heather Skaza-Acosta, Florida Gulf Coast University</i> <i>Chad Evers, Florida Gulf Coast University</i>
8:50am – 9:10am	Creating the Environmental Justice STEM Leadership Academy (EJSLA): Successes, Challenges, and Opportunities <i>Rachel Gisewhite, University of Southern Mississippi</i> <i>David Holt, University of Southern Mississippi</i> <i>Jennifer Walker, University of Southern Mississippi</i>
9:10am – 9:30am	N/A

Break – 9:30am – 9:45am

Concurrent Session 2 –9:45am – 10:45am

ZEB 150 – Traditional Paper Presentations (Presider: Justice Ejike)

9:45am – 10:05am	Bridging Physical Sciences and Black Students' Interests in Gaming: A Case Study <i>Justice Ejike, Georgia State University</i> <i>Natalie King, Georgia State University</i>
10:05am – 10:25am	Language Strategies for Justice-Oriented Science Education <i>Christopher Irwin, Florida International University</i>
10:25am – 10:45am	N/A

ZEB 101 – Advice from the Trenches Presider: Sherwin Jose

9:45am – 10:05am	Cultivating Curiosity: An Inquiry-Based Approach to Teaching Elementary Science Methods for Pre-Service Teachers <i>Sherwin Jose, Florida International University</i>
10:05am – 10:25am	The History, Future, and Potential of Climate Education in the United States <i>Bryce Coon, EARTHDAY.ORG</i>
10:25am – 10:45am	Science Isn't Just For the Lab: Helping Students Connect Science to Their Lives (Virtual) <i>Rachel Cacace, School District of Manatee County</i>

Break – 10:45am – 11:00am

Concurrent Session 3 – 11:00am – 12:00pm

ZEB 150 – Traditional Paper Presentations (Presider: Joshua Ellis)

11:00am – 11:20am	Interdisciplinary Teaching: Elementary Teacher Candidates Engaging in Mathematical Modeling while Exploring a Scientific Phenomenon <i>Rose Pringle, University of Florida</i> <i>Hyunyi Jung, University of Florida</i> <i>Kayla Sutcliffe, University of Florida</i> <i>Anne Levendusky, University of Florida</i>
11:20am – 11:40am	Exploring Secondary Science Teachers' Understandings of and Reflections on an Integrated STEM Observation Protocol <i>Emily Dare, Louisiana State University</i> <i>Joshua Ellis, Louisiana State University</i> <i>Christopher Irwin, Florida International University</i>
11:40am – 12:00pm	Into the Woods: Interdisciplinary Science and Literacy Professional Development Centering Dimensions of Place (Virtual) <i>Jessica Stephenson Reaves, Kennesaw State University</i> <i>Brian Clements, Kennesaw State University</i> <i>Jennifer Dail, Kennesaw State University</i>

ZEB 101 – Works in Progress

(Presider: Sharon Moffitt)

11:00am – 11:20am	Preliminary Alumni Survey Results of Select NSF Noyce Teacher Scholarship Programs (Virtual) <i>David Kumar, Florida Atlantic University</i> <i>Sharon Moffitt, Florida Atlantic University</i> <i>Noah Corbett, Florida Atlantic University</i> <i>Michael Hansen, Brookings Institution</i> <i>Li Feng, Texas State University</i>
11:20am – 11:40am	A Reflection of Noyce STEM Scholar Program Interview Experiences <i>Sharon Moffitt, Florida Atlantic University</i> <i>David Kumar, Florida Atlantic University</i> <i>Catherin Restrepo-Widney, Florida Atlantic University</i>
11:40am – 12:00pm	Evaluating Secondary School-Base Induction Programs for Retaining Minority Teachers in STEM <i>Andrew McIntosh, University of West Florida</i> <i>Jennifer Stark, University of West Florida</i> <i>Julie Gray, University of West Florida</i> <i>Kwame Owusu-Daaka, University of West Florida</i>

Poster Session & Networking – 12:00pm – 12:30pm

ZEB 115 – Poster Presentations

A Phenomenological Study of Secondary Science Students' Experiences and Perceptions of Culturally Responsive Pedagogy <i>Marie-France Etienne-Denis, University of West Florida</i>
Effects of Robotics Participation on Students' Confidence and Perception of Self-Worth from Impoverished, Rural Communities <i>Mary Ellen Gray, University of Southern Mississippi</i>

Lunch – 12:30pm – 1:15pm

ZEB Atrium

- Lunch will be served in the Atrium. Please feel free to seat yourself wherever you are comfortable.
- Vegetarian, vegan, and gluten free options are available for this meal. Please see the buffet for more details.

Welcome Remarks – 1:00pm

ZEB 120



Dr. Aaron Kuntz, Professor and Dean of the School of Education and Human Development at Florida International University

Dr. Aaron M. Kuntz is Professor of Research Methodology and Department Chair of Counseling, Recreation and School Psychology at Florida International University, where he currently holds the Frost Professorship of Education and Human Development.

Keynote Address – 1:15pm – 2:00pm

ZEB 120



Dr. Malcolm Butler, Professor and Dean of the Cato College of Education at the University of North Carolina Charlotte

“Navigating Food Deserts in Science Teacher Education: Finding Nourishment for Our Family, Profession, and Souls”

Dr. Malcolm B. Butler is Professor and Dean of the Cato College of Education at UNC Charlotte. He has taught and learned mathematics, science and life from elementary, middle, and high school students, as well as college students. He has been affiliated with several institutions of higher education, including many within our region. His research interests include writing to learn in science, physics teacher education, and equity and diversity in science. He has co-authored and co-edited three books and numerous book chapters and journal articles. He has served in leadership capacities in his profession, including President of the Association for Science Teacher Education.

Business Meeting – 2:00pm – 2:30pm

ZEB 120

Meeting Agenda:

- Introduction of current SASTE Executive Committee
- Approval of 2022 Regional Meeting minutes
- Report from the Secretary-Treasurer
- Report from the ASTE Regional Representative
- Awards
- Nominations/Elections
- New Discussion and Announcements
- Adjournment

Break – 2:30pm – 2:45pm

Concurrent Session 4 – 2:45pm – 3:45pm

ZEB 150 – *Traditional Paper Presentations* (Presider: Andrew McIntosh)

2:45pm – 3:05pm	Comparing VR Charter School's Immersive Approach with Traditional Charter Schools' Performance <i>John Pecore, University of West Florida</i> <i>Ryan Walker, Mississippi State University</i> <i>Chase Harrison, University of West Florida</i>
3:05pm – 3:25pm	Secondary Science and Math Teacher Candidates' Development of Questioning and Discussion Skills Using Mixed-reality Simulations <i>John Pecore, University of West Florida</i> <i>Corey Nagle, University of West Florida</i> <i>Minkyong Kim, University of West Florida</i> <i>Melissa Demetrikopoulos, Institute for Biomedical Philosophy</i>
3:25pm – 3:45pm	N/A

ZEB 101 – *Traditional Paper Presentations* (Presider: David Kumar)

2:45pm – 3:05pm	Teacher Interactions and Strategy Implementation in a STEM Professional Development (Virtual) <i>Drew Gossen, University of South Alabama</i>
3:05pm – 3:25pm	The Influence of Vertically and Horizontally Aligned Collaborative Teams in Science Teachers' Teaching Practice <i>Sharfun Islam Nancy, University of South Florida</i> <i>Karl Jung, Bradley University</i> <i>David Rosengrant, University of South Florida</i>
3:25pm – 3:45pm	Impact of Informal PLC's Technological Support During COVID-19 in Enhancing Secondary Science Teachers' Efficacy <i>Amdad Ahmed Awsaf, Florida International University</i> <i>Mohammad Nure Alam Siddique, University of Dhaka</i> <i>S. M. Hafizur Rahman, University of Dhaka</i>

Break – 3:45pm – 4:00pm

Concurrent Session 5 – 4:00pm – 5:00pm

ZEB 150 – Traditional Paper Presentations (Presider: Bryce Coon)

4:00pm – 4:20pm	The DAST and Student Perceptions of Scientists: An Outdoor Learning Experience (Virtual) <i>Cindy Lee Sang, Texas Tech University</i> <i>Taylor Darwin, Texas Tech University</i> <i>Christi Whitworth, Texas Tech University</i> <i>Gina Childers, Texas Tech University</i> <i>Rebecca Hite, Texas Tech University</i> <i>Shirley Matteson, Texas Tech University</i>
4:20pm – 4:40pm	Investigating Constructs of Self-Determination Among Nonbinary Adolescents in an Outdoor STEM Experience (Virtual) <i>Christi Whitworth, Texas Tech University</i> <i>Taylor Darwin, Texas Tech University</i> <i>Cindy Lee Sang, Texas Tech University</i> <i>Gina Childers, Texas Tech University</i> <i>Rebecca Hite, Texas Tech University</i> <i>Shirley Matteson, Texas Tech University</i>
4:40pm – 5:00pm	Conceptual Change Through Modeling of the Earth-Moon- System (Virtual) <i>Melissa Olson, Texas Tech University</i> <i>Jocelyn Miller, Texas Tech University</i> <i>Gina Childers, Texas Tech University</i> <i>Kristie Gutierrez, Old Dominion University</i> <i>Jin Kyeong Jung, Texas Tech University</i>

ZEB 101 – Works in Progress (Presider: Sumitra Himangshu-Pennybacker)

4:00pm – 4:20pm	Analyzing Elementary Science Resources from TeachersPayTeachers.com: An Exploratory Study <i>Jennifer Stark, University of West Florida</i>
4:20pm – 4:40pm	Student Infomercials: Promoting Science Literacy (Virtual) <i>Sumitra Himangshu-Pennybacker, Middle Georgia State University</i>
4:40pm – 5:00pm	N/A

Conference Closing – 5:00pm

- Please join us in the Atrium for a few moments to close out our day!