

## NARST 2023 International Conference Schedule at a Glance

*All times are USA Central Time*

Regular Sessions	Workshops	Business Meetings	Social Events
Date/Time	Event		Room
<b>Monday, April 17</b>			
3:00 pm – 5:00 pm	Registration		8 <sup>th</sup> St. Foyer on Lobby Level [near Business Center]
8:00 am – 5:00 pm	NARST Board Meeting		Waldorf
<b>Tuesday, April 18</b>			
<b>Pre-Conference Events</b>			
7:30 am – 7:00 pm	Registration		2 <sup>nd</sup> floor landing
8:00 am – 12:00 pm	NARST Board Meeting		Waldorf
8:00 am – 9:00 am	Mentor-Mentee Nexus (ticketed event) Sponsor: Membership Committee		Salon A5
9:10 am – 10:10 am	Early Career Faculty Forum (ticketed event) Sponsor: Membership Committee		Salon A5
10:20 am – 11:20 am	Welcome Session (ticketed event) Sponsor: Membership Committee		Salon A5
<b>Pre-Conference Workshops</b>			
8:00 am – 11:45 am	Integrating Science with Computer Science for Linguistically Diverse Classrooms at Upper Elementary Grades via Educational Robotics Sponsor: Research Committee		Salon A1
8:00 am – 11:45 am	Use of cutting-edge technologies in STEM education. Programs and lessons learned with AR, VR, and 3D modeling Sponsor: Research Committee		Salon A2
8:00 am – 11:45 am	Critically theorizing the margins for reform-based equity in science: A disobedient reckoning Sponsor: Equity and Ethics Committee		Salon A3

8:00 am – 11:45 am	Towards Scientific Literacy in Inclusive Science Education – A New Approach to Support Pre- and In-Service Teachers Sponsor: Research Committee	Salon A4
8:00 am – 11:45 am	Observing Integrated STEM Education in K-12 Science and Engineering Classrooms with New Tools and Resources Sponsor: Research Committee	Salon C1-2
8:00 am – 11:45 am	Assessing Early Childhood and Primary Students' Views of Science: Learning to Administer and Score two Valid and Reliable Instruments (Views about Scientific Inquiry- Elementary and Young Children's Views about Science) Sponsor: Research Committee	Salon C3-4
8:00 am – 11:45 am	Dismantling Systemic Inequalities in Indigenous STEM Education Sponsor: ISK-RIG	Spencer Foundation, 625 N Michigan Ave
11:45 am – 1:00 pm	Graduate Student Luncheon [ticketed event]	Salon A5
11:45 am – 1:00 pm	Lunch break	
<b>Conference Begins</b>		
1:00 pm – 1:30 pm	Presidential Welcome: Gillian Roehrig, NARST President	Grand Ballroom
1:30 pm – 2:45 pm	Keynote Address: Dr. Christine Cunningham, Pennsylvania State University <i>Engineering Science Reform</i>	Grand Ballroom
3:00 pm – 4:30 pm	Concurrent Session #1	See Program
4:45 pm – 6:15 pm	Concurrent Session #2	See Program
7:00 pm – 8:30 pm	Presidential Reception and Welcome Celebration (appetizers and cash bar)	Grand Ballroom

Wednesday, April 19		
6:00 am – 8:00 am	Mind and Sole Fun Run (off-site) <i>Not sponsored by NARST</i>	Meet in Conference Hotel Lobby
7:30 am – 4:30 pm	Registration	2 <sup>nd</sup> floor landing
7:00 am – 8:00 am	RIG Business Meetings [continental breakfast provided beginning at 6:30 am]	Salon A Foyer
	Asian and Pacific Islander Science Education Research [APISER]	Salon A1
	Latino/a RIG [LARIG]	Salon A2
	Contemporary Methods for Science Education Research	Salon A3
	Engineering Education [ENE-RIG]	Salon A4
	Indigenous Science Knowledge [ISK-RIG]	Salon A5
	Research in Artificial Intelligence-involved Science Education [RAISE]	Salon C1-2
	Continental and Diasporic Africa in Science Education RIG (CADASE)	Salon C3-4
8:25 am – 9:55 am	Concurrent Session #3 (includes Roundtables #1)	See Program
9:55am – 10:20am	Coffee break	Salon A Foyer and Normandie Room (2 <sup>nd</sup> Floor)
10:20 am – 11:50 am	Concurrent Session #4	See Program
11:50 pm – 1:00 pm	Lunch break	
1:00 pm – 2:30 pm	Concurrent Session #5	See Program
2:45 pm – 4:15 pm	Awards Dessert Reception (Coffee and dessert provided)	Grand Ballroom
4:30 pm – 6:00 pm	Concurrent Session #6	See Program
6:30 pm – 7:30 pm	Graduate Student Forum	Salon A5
6:30 pm – 7:30 pm	JRST Dinner (by invitation)	Astoria

Thursday, April 20		
7:30 am – 4:30 pm	Registration	2 <sup>nd</sup> floor landing
7:00 am – 8:30 am	Committee Meetings [continental breakfast provided beginning at 7:15 am]	Salon A Foyer
	Elections	Salon A2
	Awards	Salon A3
	Research	Salon A4
	Equity and Ethics	Salon C1-2
	External Policy and Relations	Salon C3-4
	International	Salon C5-6
	Graduate Students	Salon C7-8
	Membership	Salon A1
	Publications Advisory	Salon A5
	Social Media, Website, Communications	Blvd A
	Program [strand coordinators]	Blvd C
8:40 am – 10:10 am	Concurrent Session #7	See Program
10:30 am – 12:00 pm	Concurrent Session #8 (Includes Roundtables #2)	See Program
12:00 pm – 1:10 pm	Lunch break	
1:10 pm – 2:40 pm	Concurrent Session #9	See Program
2:50 pm – 3:35 pm	Poster Session A (coffee and snacks provided)	Grand Ballroom
3:35 pm – 4:20 pm	Poster Session B (coffee and snacks provided)	Grand Ballroom
4:30 pm – 6:00 pm	Concurrent Session #10	See Program
6:10 pm – 9:00 pm	Equity and Ethics Dinner (registration and prepay required)	Off-site

Friday, April 21		
8:00 am -12:00 pm	Registration	2 <sup>nd</sup> floor landing
8:00 am – 8:50 am	Membership and Business Meeting Meet Board of Directors [continental breakfast provided beginning at 7:30 am]	Salon A1
9:00 am – 10:30 am	Concurrent Session #11	See Program
10:45 am – 12:15 am	Concurrent Session #12 (Includes Roundtables #3)	See Program
12:15 pm – 1:45 pm	Lunch break	
1:45 pm – 3:15 pm	Concurrent Session #13	See Program
3:15 pm – 4:15 pm	<p style="text-align: center;"><b>CLOSING SESSION</b></p> Looking ahead to the 2024 Conference Showing appreciation for Board and Committee leadership.	Salon A1
5:00 pm – 10:00 pm	NARST Board meeting	Off-site

**Note: The Normandie Room on the 2<sup>nd</sup> Floor is available to use all week as a break room and workspace.**

<b>Friday, April 28</b>	<b>All-Virtual Conference Day</b>	
7:00 am – 7:30 am	Welcome from President Gill Roehrig and Conference Overview	Zoom A
7:45 am – 8:45 am	Concurrent Session #1	Zoom A and B
8:45 am – 9:15 am	Breakout Discussions	Multiple breakout rooms
9:30 am – 10:30 am	Concurrent Session #2	Zoom A and B
10:45 am – 12:00 pm	Concurrent Session #3	Zoom A and B
12:15 pm – 1:00 pm	Poster Session	Poster Gallery
1:00 pm – 2:00 pm	Lunch break	
2:00 pm – 3:00 pm	Concurrent Session #4	Zoom A and B
3:15 pm – 4:15 pm	Concurrent Session #5	Zoom A and B
4:15 pm – 4:40 pm	Breakout Discussions	Multiple breakout rooms
4:40 pm – 5:00 pm	Closing Session Remarks from outgoing President Gill Roehrig and incoming President Jomo Mutegi	Zoom A

# 2023 NARST Annual International Conference

Schedule

Tuesday, 18 April, 2023

8:00-11:45am Salon A1 (LL)

[Integrating Science with Computer Science for Linguistically Diverse Classrooms at Upper Elementary Grades via Educational Robotics](#)

Pre-Conference Workshop

8:00-11:45am Salon A2 (LL)

[Use of cutting-edge technologies in STEM education. Programs and lessons learned with AR, VR, and 3D modeling](#)

Pre-Conference Workshop

8:00-11:45am Salon A3 (LL)

[Critically theorizing the margins for reform-based equity in science: A disobedient reckoning](#)

Pre-Conference Workshop

Sponsored by Equity and Ethics Committee

8:00-11:45am Salon A4 (LL)

[Towards Scientific Literacy in Inclusive Science Education – A New Approach to Support Pre- and In-Service Teachers](#)

Pre-Conference Workshop

8:00-9:00am Salon A5 (LL)

[Mentor-Mentee Nexus](#)

Sponsored Session

Membership Committee

8:00-11:45am Salon C1-2 (LL)

[Observing Integrated STEM Education in K-12 Science and Engineering Classrooms with New Tools and Resources](#)

Pre-Conference Workshop

8:00-11:45am Salon C3-4 (LL)

[Assessing Early Childhood and Primary Students' Views of Science: Learning to Administer and Score two Valid and Reliable Instruments \(Views about Scientific Inquiry- Elementary and Young Children's Views about Science\)](#)

Pre-Conference Workshop

8:00-9:00am Salon C5-6 (LL)

[\[Interactive Mission #1 \(K-2nd grade focus\)\] Revolutionizing 3-D Science & STEM Education: Join us for a hands-on demonstration of NSF backed technology capable of measuring knowledge and skills through immersive simulations](#)

Sponsored Session

8:00am-12:00pm Waldorf (L3)

[Board Meeting](#)

Committee Meeting

8:00-11:45am Off-Site

Dismantling Systemic Inequalities in Indigenous STEM Education

Pre-Conference Workshop

Sponsored by Indigenous Science Knowledge Research Interest Group (ISK-RIG)

9:10-10:10am Salon A5 (LL)

Early Career Faculty Forum

Sponsored Session

Membership Committee

9:10-10:10am Salon C5-6 (LL)

[Interactive Mission #2 (3rd-5th grade focus)] Revolutionizing 3-D Science & STEM Education: Join us for a hands-on demonstration of NSF backed technology capable of measuring knowledge and skills through immersive simulations

Sponsored Session

10:20-11:20am Salon A5 (LL)

Welcome Session

Sponsored Session

Membership Committee

10:20-11:20am Salon C5-6 (LL)

[Interactive Mission #3 (6th-8th grade focus)] Revolutionizing 3-D Science & STEM Education: Join us for a hands-on demonstration of NSF backed technology capable of measuring knowledge and skills through immersive simulations

Sponsored Session

11:45am-1:00pm Salon A5 (LL)

Graduate Student Luncheon

Social Event

11:45am-1:00pm Salon C5-6 (LL)

CADASE Meet and Greet

Social Event

1:00-1:30pm Grand Ballroom (L2)

Presidential Welcome

Plenary Session

Welcome Address by NARST President Gillian Roehrig

Introduction to the NARST Board Members

1:30-2:45pm Grand Ballroom (L2)

Keynote Address

Keynote Speaker

Dr. Christine Cunningham, Pennsylvania State University

3:00-4:30pm Salon A1 (LL)

Asset Perspectives of In-Service Teacher Education Towards Equitable Teaching

SC-Organized Paper Set

Strand 8: In-service Science Teacher Education



3:00-4:30pm Salon A2 (LL)

Supporting Inclusive, Equitable, and culturally responsive Teaching

SC-Organized Paper Set

Strand 7: Pre-service Science Teacher Education

3:00-4:30pm Salon A3 (LL)

Exploring Knowledge and Pedagogical Content Knowledge Development in Preservice Teacher Education

SC-Organized Paper Set

Strand 7: Pre-service Science Teacher Education

3:00-4:30pm Salon A4 (LL)

Equity in STEM Education Research and Praxis Post “2020”

Symposium

Strand 11: Cultural, Social, and Gender Issues

3:00-4:30pm Salon A5 (LL)

Exploring the Potential of Locally- and Globally-Valued Knowledges

Sponsored Session

Indigenous Science Knowledge Research Interest Group (ISK-RIG)

3:00-4:30pm Salon C1-2 (LL)

Students' Use of Computational Models and Reasoning

SC-Organized Paper Set

Strand 1: Science Learning: Development of student understanding

3:00-4:30pm Salon C3-4 (LL)

Science Teaching & Instruction

SC-Organized Paper Set

Strand 2: Science Learning: Contexts, Characteristics and Interactions

3:00-4:30pm Salon C5-6 (LL)

STEM Student Sense of Belonging and Identity Development

SC-Organized Paper Set

Strand 5: College Science Teaching and Learning (Grades 13-20)

3:00-4:30pm Salon C7-8 (LL)

Developing Teachers' NOS Views

SC-Organized Paper Set

Strand 13: History, Philosophy, Sociology, and Nature of Science

3:00-4:30pm Blvd A (L2)

Academic Language, Argumentation, and Science Teaching

SC-Organized Paper Set

Strand 4: Science Teaching — Middle and High School (Grades 5-12): Characteristics and Strategies

3:00-4:30pm Blvd C (L2)

Families and Play in Contributing to STEM learning

SC-Organized Paper Set

Strand 6: Science Learning in Informal Contexts

3:00-4:30pm PDR 2 (L3)

Extended Reality in Teaching and Learning

SC-Organized Paper Set

Strand 12: Technology for Teaching, Learning, and Research

3:00-4:30pm Waldorf (L3)

Antiracist Science Teaching: Resistance, Conscientization, and Critical Hope

SC-Organized Paper Set

Strand 11: Cultural, Social, and Gender Issues

3:00-4:30pm Astoria (L3)

Promoting quality in science education with evolutionary assessment

SC-Organized Paper Set

Strand 10: Curriculum and Assessment

4:45-6:15pm Salon A1 (LL)

Centering the Experiences, Pedagogies, and Needs of Black Women Science Teachers

Related Paper Set

Strand 11: Cultural, Social, and Gender Issues

4:45-6:15pm Salon A2 (LL)

Formal and informal science curriculum in pre-service science teacher education

SC-Organized Paper Set

Strand 7: Pre-service Science Teacher Education

4:45-6:15pm Salon A3 (LL)

Supporting Beginning through Experienced Science Teachers in Implementing Culturally Relevant Instruction

SC-Organized Paper Set

Strand 8: In-service Science Teacher Education

4:45-6:15pm Salon A4 (LL)

Developing and Assessing Science Teacher Learning

SC-Organized Paper Set

Strand 8: In-service Science Teacher Education

4:45-6:15pm Salon A5 (LL)

Measurement, Methodologies, and Methods in Science Education Research

Sponsored Session

Contemporary Methods Research Interest Group

4:45-6:15pm Salon C1-2 (LL)

Conceptual Understandings in Biological Contexts

SC-Organized Paper Set

Strand 1: Science Learning: Development of student understanding

4:45-6:15pm Salon C3-4 (LL)

Context and Learning Science

SC-Organized Paper Set

Strand 2: Science Learning: Contexts, Characteristics and Interactions

4:45-6:15pm Salon C5-6 (LL)

Equity Considerations for Post-Secondary STEM Education

Symposium

Strand 5: College Science Teaching and Learning (Grades 13-20)

4:45-6:15pm Salon C7-8 (LL)

Leadership for the Promotion of Equity in Science and STEM Education

Related Paper Set

Strand 15: Policy, Reform, and Program Evaluation

4:45-6:15pm Blvd A (L2)

Teacher Professional Identities and Reflective Teaching

SC-Organized Paper Set

Strand 4: Science Teaching — Middle and High School (Grades 5-12): Characteristics and Strategies

4:45-6:15pm Blvd C (L2)

Exploring the urgency of climate change literacy

SC-Organized Paper Set

Strand 14: Environmental Education and Sustainability

4:45-6:15pm PDR 2 (L3)

Modeling in Elementary Science Classrooms and Informal Science

SC-Organized Paper Set

Strand 3: Science Teaching — Primary School (Grades preK-6): Characteristics and Strategies

4:45-6:15pm Waldorf (L3)

Exploring STEM Research in curriculum and identity development at Teacher Preparation level

SC-Organized Paper Set

Strand 7: Pre-service Science Teacher Education

4:45-6:15pm Astoria (L3)

Evidence-based designing for science instruction

SC-Organized Paper Set

Strand 10: Curriculum and Assessment

7:00-8:30pm Grand Ballroom (L2)

Presidential Reception

Social Event

International Ballroom adjacent to the Grand Ballroom

Wednesday, 19 April, 2023

6:00-8:00am Off-Site

Mind and Sole Fun Run

Social Event

Meet in the conference hotel lobby!

7:00-8:15am Salon A1 (LL)

Asian and Pacific Islander Science Education Research (APISER) RIG Meeting

Ling Liang, Xiufeng Liu  
RIG Business Meeting

7:00-8:15am Salon A2 (LL)

Latino/a RIG (LARIG) Meeting

Regina Suriel  
RIG Business Meeting

7:00-8:15am Salon A3 (LL)

Contemporary Methods for Science Education Research RIG Meeting

Robert Talbot, Bina Vanmali  
RIG Business Meeting

7:00-8:15am Salon A4 (LL)

Engineering Education RIG (ENE-RIG) Meeting

Monica Cardella  
RIG Business Meeting

7:00-8:15am Salon A5 (LL)

Indigenous Science Knowledge RIG (ISK-RIG) Meeting

Bhaskar Upadhyay  
RIG Business Meeting

7:00-8:15am Salon C1-2 (LL)

Research in Artificial Intelligence-Involved Science Education (RAISE) RIG Meeting

Kent Crippen, Xiaoming Zhai  
RIG Business Meeting

7:00-8:15am Salon C3-4 (LL)

Continental and Diasporic Africa in Science Education RIG (CADASE) Meeting

RIG Business Meeting

8:25-9:55am Salon A1 (LL)

Culturally Responsive and Inclusive STEM Instruction

SC-Organized Paper Set  
Strand 5: College Science Teaching and Learning (Grades 13-20)

8:25-9:55am Salon A2 (LL)

Breaking Barriers: Broadening the Contextualization of Science Pedagogies and Professional Development

SC-Organized Paper Set  
Strand 11: Cultural, Social, and Gender Issues

8:25-9:55am Salon A3 (LL)

Enacting Social Justice in Science and STEM Classrooms

SC-Organized Paper Set  
Strand 11: Cultural, Social, and Gender Issues

8:25-9:55am Salon A4 (LL)

Operationalizing Justice-Centered Science Education By Teaching Through Science and Engineering Practices

Related Paper Set

Strand 7: Pre-service Science Teacher Education

8:25-9:55am Salon A5 (LL)

Roundtables 1

Roundtable Session

Table 1. Middle School Science (van Aswegen, Margolin, Nyaema)

Table 2. Affective Issues in Teaching and Learning (Chakraverty, Park, Schellinger, Ogan-Bekiroglu)

Table 3. Issues in College STEM Teaching (Rose, Clary, Vergara)

Table 4. Clarifying the Nature of Science (Akillioglu, Davey, Okan)

Table 5. Science Teacher Preparation (Akerson, Klieger, Lane)

8:25-9:55am Salon C1-2 (LL)

Rethinking Epistemic Agency: Examining tensions and perspectives among scholars, teachers, and students

Related Paper Set

Strand 2: Science Learning: Contexts, Characteristics and Interactions

8:25-9:55am Salon C3-4 (LL)

Assessments to promote reform based science education

SC-Organized Paper Set

Strand 10: Curriculum and Assessment

8:25-9:55am Salon C5-6 (LL)

Strengthening Science Teachers' NGSS-Aligned Instruction by Focusing on Students

SC-Organized Paper Set

Strand 8: In-service Science Teacher Education

8:25-9:55am Salon C7-8 (LL)

Data and Investigations in Scientific Inquiry

SC-Organized Paper Set

Strand 1: Science Learning: Development of student understanding

8:25-9:55am Blvd A (L2)

Extended Reality to Support Science Learning

SC-Organized Paper Set

Strand 12: Technology for Teaching, Learning, and Research

8:25-9:55am Blvd C (L2)

Preparing for a warming world: Modeling and promoting climate literacy.

Related Paper Set

Strand 14: Environmental Education and Sustainability

8:25-9:55am PDR 2 (L3)

Once upon a time... The use of narratives in informal learning environments

Symposium

Strand 6: Science Learning in Informal Contexts

Presider Orit Ben-Zvi Assaraf; Discussant Justin Dillon

8:25-9:55am Waldorf (L3)

Approaches of Preservice Teachers Developing Self-efficacy & Motivation for Science Learning and Teaching

SC-Organized Paper Set

Strand 7: Pre-service Science Teacher Education

8:25-9:55am Astoria (L3)

Standards and Policy

SC-Organized Paper Set

Strand 15: Policy, Reform, and Program Evaluation

10:20-11:50am Grand Ballroom (L2)

Reflecting on Reform: Movements that Value and Expand the Science Education Experiences of African People and People of African Descent

Sponsored Session

CADASE Research Interest Group

10:20-11:50am Salon A1 (LL)

Using Principles of Engineering Design to Advance Elementary Science Teacher Preparation

Related Paper Set

Strand 7: Pre-service Science Teacher Education

10:20-11:50am Salon A2 (LL)

Inclusion in STEM Higher Education: (Re)evaluating Pedagogies, Programs, and Research Instruments

SC-Organized Paper Set

Strand 11: Cultural, Social, and Gender Issues

10:20-11:50am Salon A3 (LL)

Supporting Multilingual and Refugee Learners through Translanguaging and Culturally Sustaining Pedagogies

SC-Organized Paper Set

Strand 11: Cultural, Social, and Gender Issues

10:20-11:50am Salon A4 (LL)

Elementary Science and Teacher Education Standards in the U.S.: Implementation and Future Directions

Symposium

Strand 15: Policy, Reform, and Program Evaluation

10:20-11:50am Salon A5 (LL)

International collaborative study of Sustainability and Social Justice in Science Education

Sponsored Session

Board of Directors

10:20-11:50am Salon C1-2 (LL)

Students' Ways of Learning Science

SC-Organized Paper Set

Strand 2: Science Learning: Contexts, Characteristics and Interactions

10:20-11:50am Salon C3-4 (LL)

Transforming curriculum and assessment for teacher professional development

SC-Organized Paper Set

Strand 10: Curriculum and Assessment

10:20-11:50am Salon C5-6 (LL)

Communities of Practice: Sites for Teacher Learning

SC-Organized Paper Set

Strand 8: In-service Science Teacher Education

10:20-11:50am Salon C7-8 (LL)

Evaluating Information and Transforming Learning in Science Classrooms

SC-Organized Paper Set

Strand 1: Science Learning: Development of student understanding

10:20-11:50am Blvd A (L2)

Graduate Student Professional Development

SC-Organized Paper Set

Strand 5: College Science Teaching and Learning (Grades 13-20)

10:20-11:50am Blvd C (L2)

Science Teacher Learning through Professional Development Opportunities: Planning for and Reflecting on What Teachers Learned

SC-Organized Paper Set

Strand 8: In-service Science Teacher Education

10:20-11:50am PDR 2 (L3)

Instructional Approaches and Strategies for Learning Chemistry

SC-Organized Paper Set

Strand 4: Science Teaching — Middle and High School (Grades 5-12): Characteristics and Strategies

10:20-11:50am Waldorf (L3)

Translating (Y)our Research into Forms that are Useful to K-12 Science Educators

Sponsored Session

National Science Teachers Association (NSTA)

10:20-11:50am Astoria (L3)

Issues & Trends in NOS Research

SC-Organized Paper Set

Strand 13: History, Philosophy, Sociology, and Nature of Science

1:00-2:30pm Salon A1 (LL)

Consequential Arrangements for Becoming: Considering Identity Work in STEM Across Social, Institutional, and Practice Spaces

Related Paper Set

Strand 11: Cultural, Social, and Gender Issues

1:00-2:30pm Salon A2 (LL)

Approaches to Exploring Learning and Teaching about socio-scientific issues

SC-Organized Paper Set

Strand 7: Pre-service Science Teacher Education

1:00-2:30pm Salon A3 (LL)

Exploring How Preservice Teachers Engage with Engineering Practices Across Different Contexts

SC-Organized Paper Set

Strand 7: Pre-service Science Teacher Education

1:00-2:30pm Salon A4 (LL)

Inclusion in k-12 Science Education: What does it look like? What can it look like?

SC-Organized Paper Set

Strand 11: Cultural, Social, and Gender Issues

1:00-2:30pm Salon A5 (LL)

Publishing, Reviewing, and Writing for JRST

Sponsored Session

Publications Advisory Committee

1:00-2:30pm Salon C1-2 (LL)

Uncertainty and Sensemaking in Science Classrooms

SC-Organized Paper Set

Strand 1: Science Learning: Development of student understanding

1:00-2:30pm Salon C3-4 (LL)

Expanding technology-enhanced pathways for science assessment

SC-Organized Paper Set

Strand 10: Curriculum and Assessment

1:00-2:30pm Salon C5-6 (LL)

Assessment and Evaluation of Learning

SC-Organized Paper Set

Strand 12: Technology for Teaching, Learning, and Research

1:00-2:30pm Salon C7-8 (LL)

The Role of Sensemaking in Learning Science

SC-Organized Paper Set

Strand 2: Science Learning: Contexts, Characteristics and Interactions

1:00-2:30pm Blvd A (L2)

Teacher Education

SC-Organized Paper Set

Strand 15: Policy, Reform, and Program Evaluation

1:00-2:30pm Blvd C (L2)

Patterns of Participation in Youth Informal Science Learning

SC-Organized Paper Set

Strand 6: Science Learning in Informal Contexts



1:00-2:30pm Waldorf (L3)

Science Teacher Learning about Science Learning in Social Contexts

SC-Organized Paper Set

Strand 8: In-service Science Teacher Education

2:45-4:15pm Grand Ballroom (L2)

Awards Dessert Reception

Social Event

4:30-6:00pm Salon A1 (LL)

Professional Learning Communities Supporting Science Teacher Learning

SC-Organized Paper Set

Strand 8: In-service Science Teacher Education

4:30-6:00pm Salon A2 (LL)

Understanding the use of models and representations in science learning

SC-Organized Paper Set

Strand 7: Pre-service Science Teacher Education

4:30-6:00pm Salon A3 (LL)

Justice Centered Ambitious Science Teaching (JuST): Ways Core Practices Can Center Justice

Symposium

Strand 11: Cultural, Social, and Gender Issues

4:30-6:00pm Salon A4 (LL)

Disciplinary Knowledge and Technology in Science Classes

SC-Organized Paper Set

Strand 1: Science Learning: Development of student understanding

4:30-6:00pm Salon A5 (LL)

Research in Artificial Intelligence-involved Science Education

Sponsored Session

RAISE Research Interest Group

4:30-6:00pm Salon C1-2 (LL)

The role of Creativity, Computational & Design Thinking in pre-service teacher learning

SC-Organized Paper Set

Strand 7: Pre-service Science Teacher Education

4:30-6:00pm Salon C3-4 (LL)

Personal Dynamics of Learning for Elementary Science Teachers

SC-Organized Paper Set

Strand 8: In-service Science Teacher Education

4:30-6:00pm Salon C5-6 (LL)

Curricular innovations supporting new age learning outcomes

SC-Organized Paper Set

Strand 10: Curriculum and Assessment

4:30-6:00pm Salon C7-8 (LL)

Student Development of Research Skills

SC-Organized Paper Set

Strand 5: College Science Teaching and Learning (Grades 13-20)

4:30-6:00pm Blvd A (L2)

Building pedagogical capacity in preservice teachers

SC-Organized Paper Set

Strand 14: Environmental Education and Sustainability

4:30-6:00pm Blvd C (L2)

Impact of Interactions on Learning Science

SC-Organized Paper Set

Strand 2: Science Learning: Contexts, Characteristics and Interactions

4:30-6:00pm PDR 2 (L3)

Student Engagement, Epistemology, and Socioscientific Approaches

SC-Organized Paper Set

Strand 4: Science Teaching — Middle and High School (Grades 5-12): Characteristics and Strategies

4:30-6:00pm Waldorf (L3)

NOS and Decision-Making

SC-Organized Paper Set

Strand 13: History, Philosophy, Sociology, and Nature of Science

6:30-7:30pm Salon A5 (LL)

Graduate Student Forum

Social Event

6:30-7:30pm Astoria (L3)

JRST Dinner

Social Event

Thursday, 20 April, 2023

7:00-8:30am Salon A1 (LL)

Membership Committee

Elizabeth de los Santos, Mihwa Park

Committee Meeting

7:00-8:30am Salon A2 (LL)

Elections Committee

Committee Meeting

7:00-8:30am Salon A3 (LL)

Awards Committee

Committee Meeting

7:00-8:30am Salon A4 (LL)

Research Committee

Rouhollah Aghasaleh, Sarah Fick  
Committee Meeting

7:00-8:30am Salon A5 (LL)

Publications Advisory Committee

Dante Cisterna, Lindsay Lightner  
Committee Meeting

7:00-8:30am Salon C1-2 (LL)

Equity and Ethics Committee

María González-Howard  
Committee Meeting

7:00-8:30am Salon C3-4 (LL)

External Policy and Relations Committee

Durdane Bayram-Jacobs, Deb Morrison  
Committee Meeting

7:00-8:30am Salon C5-6 (LL)

International Committee

Mercy Ogunsola-Bandele  
Committee Meeting

7:00-8:30am Salon C7-8 (LL)

Graduate Student Committee Meeting

Scott Cohen, Theila Smith  
Committee Meeting

7:00-8:30am Blvd A (L2)

Social Media, Website, and Communications Committee

Len Annetta, Ryan Cain  
Committee Meeting

7:00-8:30am Blvd C (L2)

Program Committee

Jomo Mutegi, Gillian Roehrig  
Committee Meeting

8:40-10:10am Salon A1 (LL)

Supporting Science Teacher Learning through Interactions with Science Research

SC-Organized Paper Set  
Strand 8: In-service Science Teacher Education

8:40-10:10am Salon A2 (LL)

Dialogue and Argumentation in Learning Science

SC-Organized Paper Set  
Strand 2: Science Learning: Contexts, Characteristics and Interactions

8:40-10:10am Salon A3 (LL)

Beyond Binaries: Interrogating Normativity, Marginality, and (Un)Belonging in STEM Higher Education

SC-Organized Paper Set

Strand 11: Cultural, Social, and Gender Issues

8:40-10:10am Salon A4 (LL)

Undergraduate Research Experiences

SC-Organized Paper Set

Strand 5: College Science Teaching and Learning (Grades 13-20)

8:40-10:10am Salon A5 (LL)

Basu Scholars Symposium - Presentation of the 2022 Basu Scholars

Sponsored Session

Equity and Ethics Committee

8:40-10:10am Salon C1-2 (LL)

Supporting Science Content Knowledge for Elementary Teachers

SC-Organized Paper Set

Strand 3: Science Teaching — Primary School (Grades preK-6): Characteristics and Strategies

8:40-10:10am Salon C3-4 (LL)

Explanations in biology: Obstacles and opportunities for teaching and learning

Related Paper Set

Strand 1: Science Learning: Development of student understanding

8:40-10:10am Salon C5-6 (LL)

Centering STEM Faculty: Supporting Persistence and Leveraging Perspectives toward Antiracist Work

SC-Organized Paper Set

Strand 11: Cultural, Social, and Gender Issues

8:40-10:10am Salon C7-8 (LL)

Professional development and support

SC-Organized Paper Set

Strand 10: Curriculum and Assessment

8:40-10:10am Blvd A (L2)

Using Computational and System Thinking to Support Science Learning

SC-Organized Paper Set

Strand 12: Technology for Teaching, Learning, and Research

8:40-10:10am Blvd C (L2)

Supporting Elementary Teachers to Teach Science

SC-Organized Paper Set

Strand 3: Science Teaching — Primary School (Grades preK-6): Characteristics and Strategies

8:40-10:10am PDR 2 (L3)

NGSS Implementation: Inquiry, Science and Engineering Practices

SC-Organized Paper Set

Strand 4: Science Teaching — Middle and High School (Grades 5-12): Characteristics and Strategies

8:40-10:10am Waldorf (L3)

A Celebration of NARST Award Recipients: Distinguished Contributions to Research Award [DCRA]

Sponsored Session

Awards Committee

8:40-10:10am Astoria (L3)

Considering teacher development at the secondary school level

SC-Organized Paper Set

Strand 14: Environmental Education and Sustainability

10:30am-12:00pm Salon A1 (LL)

Teacher Learning around the Epistemic Work of Science

SC-Organized Paper Set

Strand 8: In-service Science Teacher Education

10:30am-12:00pm Salon A2 (LL)

Investigating How Preservice Teachers Learn to Facilitate Argumentation-Focused Discussions through Online Simulations

Related Paper Set

Strand 7: Pre-service Science Teacher Education

10:30am-12:00pm Salon A3 (LL)

Examining the intersections of students' ethnic, racial and science identities in college and beyond

SC-Organized Paper Set

Strand 11: Cultural, Social, and Gender Issues

10:30am-12:00pm Salon A4 (LL)

STEM and Problem-Based Instruction

SC-Organized Paper Set

Strand 15: Policy, Reform, and Program Evaluation

10:30am-12:00pm Salon A5 (LL)

Roundtables 2

Roundtable Session

Table 1: Supporting Beginning Teachers (Sunal, Stanley, Rhemer)

Table 2: Re-situating Science Teaching and STEM Identities within Community and Politicized Care (Wade-Kaimes, Upadhyay, Peña-Telfer, Ogan-Bekiroglu)

Table 3: Informal Science and STEM learning (Taylor, Vivante, Cleckley, Simpson)

Table 4: Teaching and Learning NOS from Kindergarten through Graduate School (Phillips, Akerson, Rothman)

10:30am-12:00pm Salon C1-2 (LL)

NARST/NSTA Annual Research Worth Reading Recognition

Sponsored Session

Publications Advisory Committee and NSTA

10:30am-12:00pm Salon C3-4 (LL)

Engineering Design and Self-Efficacy to Promote Student Learning

SC-Organized Paper Set

Strand 1: Science Learning: Development of student understanding

10:30am-12:00pm Salon C5-6 (LL)

Rethinking Language in Science, Engineering, and Environmental Education: Historical Dangers and Transformative Possibilities

Related Paper Set

Strand 11: Cultural, Social, and Gender Issues

10:30am-12:00pm Salon C7-8 (LL)

Examining student performance in science learning

SC-Organized Paper Set

Strand 10: Curriculum and Assessment

10:30am-12:00pm Blvd A (L2)

Computational Modeling and Data Analysis in Learning Science

SC-Organized Paper Set

Strand 2: Science Learning: Contexts, Characteristics and Interactions

10:30am-12:00pm Blvd C (L2)

The role of nature of science in tackling societal emergencies: An international perspective

Symposium

Strand 13: History, Philosophy, Sociology, and Nature of Science

10:30am-12:00pm PDR 2 (L3)

Honoring Learners' Lives in Informal Science learning

SC-Organized Paper Set

Strand 6: Science Learning in Informal Contexts

10:30am-12:00pm Waldorf (L3)

A Celebration of NARST Award Recipients: Early Career Research Award [ECRA], Outstanding Dissertation Research Award [ODRA], and NARST Fellows Award.

Sponsored Session

Awards Committee

1:10-2:40pm Salon A1 (LL)

Beliefs/Perceptions about science teaching and learning across different contexts

SC-Organized Paper Set

Strand 7: Pre-service Science Teacher Education

1:10-2:40pm Salon A2 (LL)

How Teachers' Linguistic Beliefs and Practices Impact the Science Identities and Epistemic Agency of Multilingual Learners

SC-Organized Paper Set

Strand 11: Cultural, Social, and Gender Issues

1:10-2:40pm Salon A3 (LL)

Resiliency and Retention of Science Teachers

SC-Organized Paper Set

Strand 8: In-service Science Teacher Education

1:10-2:40pm Salon A4 (LL)

Elevating Voices of Ethnically and Linguistically Diverse Learners: Interrogating Dominant Deficit-oriented Perspectives across Reforms, Policy and Practices in Science Education

Sponsored Session

Equity and Ethics Committee

1:10-2:40pm Salon A5 (LL)

Graduate Student Research Symposium

Graduate Student Committee

1:10-2:40pm Salon C1-2 (LL)

Centering a Conversation Around Approaches to Studying and Conceptualizing Teachers' Agency

Symposium

Strand 11: Cultural, Social, and Gender Issues

1:10-2:40pm Salon C3-4 (LL)

Promoting Socio-ecological Caring Practices in Science Education: Models, Possibilities, and Complexities

Related Paper Set

Strand 14: Environmental Education and Sustainability

1:10-2:40pm Salon C5-6 (LL)

Critical Pedagogies of Science and Technology

Related Paper Set

Strand 2: Science Learning: Contexts, Characteristics and Interactions

1:10-2:40pm Salon C7-8 (LL)

Learning Progressions in Science: What have we learnt and where next?

Symposium

Strand 1: Science Learning: Development of student understanding

1:10-2:40pm Blvd A (L2)

NGSS Implementation: Three-Dimensional Learning and Crosscutting Concepts

SC-Organized Paper Set

Strand 4: Science Teaching — Middle and High School (Grades 5-12): Characteristics and Strategies

1:10-2:40pm Blvd C (L2)

New Contexts for NOS Teaching and Learning

SC-Organized Paper Set

Strand 13: History, Philosophy, Sociology, and Nature of Science

1:10-2:40pm PDR 2 (L3)

Distributing Epistemic Functions and Tasks – Towards a Methodological Approach for Using ML in Science Education

Symposium

Strand 12: Technology for Teaching, Learning, and Research

1:10-2:40pm Waldorf (L3)

Supporting teacher learning in integrated STEM Education

Related Paper Set

Strand 8: In-service Science Teacher Education

1:10-2:40pm Astoria (L3)

Faculty Knowledge and Beliefs about Instruction

SC-Organized Paper Set

Strand 5: College Science Teaching and Learning (Grades 13-20)

2:50-3:35pm Grand Ballroom (L2)

Poster Session A

Poster Session

Coffee and snacks provided

3:35-4:20pm Grand Ballroom (L2)

Poster Session B

Poster Session

Coffee and snacks provided

4:30-6:00pm Salon A1 (LL)

Developing inquiry skills in pre-service science teacher education

SC-Organized Paper Set

Strand 7: Pre-service Science Teacher Education

4:30-6:00pm Salon A2 (LL)

Critical Race Theory: Interrogating Resilience, Diversification, and the Model Minority Myth across STEM Education

SC-Organized Paper Set

Strand 11: Cultural, Social, and Gender Issues

4:30-6:00pm Salon A3 (LL)

Science Teachers' Efforts to Design and Implement Innovative Science Lessons

SC-Organized Paper Set

Strand 8: In-service Science Teacher Education

4:30-6:00pm Salon A4 (LL)

Science Education Research Involving Learners of Asian And Pacific Islander (API) Heritage

Sponsored Session

Asian and Pacific Islander Research RIG

4:30-6:00pm Salon A5 (LL)

Reinventing Scientific Literacy for an Age of Misinformation: NGSS 2.0

Symposium

Strand 10: Curriculum and Assessment

4:30-6:00pm Salon C1-2 (LL)

Explorations of Social Justice and Anti-racist Science Teacher Identity

SC-Organized Paper Set

Strand 11: Cultural, Social, and Gender Issues

4:30-6:00pm Salon C3-4 (LL)

Voices from Latinas: making sense of research

Sponsored Session

Latino/a Research Interest Group



4:30-6:00pm Salon C5-6 (LL)

Student Learning and Cognition

SC-Organized Paper Set

Strand 2: Science Learning: Contexts, Characteristics and Interactions

4:30-6:00pm Salon C7-8 (LL)

Learning Progressions in Science Education Research

SC-Organized Paper Set

Strand 1: Science Learning: Development of student understanding

4:30-6:00pm Blvd A (L2)

Applications of Technology for Data Analysis

Strand 12: Technology for Teaching, Learning, and Research

4:30-6:00pm Blvd C (L2)

Socio-scientific issues and Culturally Responsive Environmental Science Education

Strand 14: Environmental Education and Sustainability

4:30-6:00pm PDR 2 (L3)

Special Topics in Chemistry Education Research

Strand 5: College Science Teaching and Learning (Grades 13-20)

4:30-6:00pm Waldorf (L3)

Research and Insights on Approaches About Science Teachers' Instructional Practices

SC-Organized Paper Set

Strand 7: Pre-service Science Teacher Education

4:30-6:00pm Astoria (L3)

Scientific Inquiry Literacy - Vision 1.5: A new focus for achieving scientific literacy

Symposium

Strand 13: History, Philosophy, Sociology, and Nature of Science

6:10-9:00pm Off-Site

Equity and Ethics Dinner

Social Event

Location: Taureaux Tavern, 155 West Van Buren St

Friday, 21 April, 2023

8:00-8:50am Salon A1 (LL)

Membership and Business Meeting

Jomo Mutegi, Gillian Roehrig

Plenary Session

Meet the Board of Directors

9:00-10:30am Salon A1 (LL)

[It's never too early: Insights from empirical studies concerning evolution in kindergarten and elementary school](#)

Related Paper Set

Strand 1: Science Learning: Development of student understanding

9:00-10:30am Salon A2 (LL)

[Communicating Science Through Visuals and Connections](#)

SC-Organized Paper Set

Strand 2: Science Learning: Contexts, Characteristics and Interactions

9:00-10:30am Salon A3 (LL)

[Science Teachers' Understanding and Implementation of the Next Generation Science Standards](#)

SC-Organized Paper Set

Strand 8: In-service Science Teacher Education

9:00-10:30am Salon A4 (LL)

[Identity and belonging in science education across varied spaces](#)

SC-Organized Paper Set

Strand 11: Cultural, Social, and Gender Issues

9:00-10:30am Salon A5 (LL)

[Scaling up innovative pedagogies in science education: A national perspective](#)

Symposium

Strand 15: Policy, Reform, and Program Evaluation

9:00-10:30am Salon C1-2 (LL)

[Achievement Gaps and Cultural Considerations in STEM Instruction](#)

SC-Organized Paper Set

Strand 5: College Science Teaching and Learning (Grades 13-20)

9:00-10:30am Salon C3-4 (LL)

[Using Virtual Platforms and Online Experiences in preparing future science teachers](#)

SC-Organized Paper Set

Strand 7: Pre-service Science Teacher Education

9:00-10:30am Salon C5-6 (LL)

[Twenty years of growth in science education capacity in Southern Africa – SAARMSTE Research School](#)

Marissa Rollnick

Sponsored Session

9:00-10:30am Salon C7-8 (LL)

[Administrators and Teacher Leaders Support of Science Teacher Learning](#)

SC-Organized Paper Set

Strand 8: In-service Science Teacher Education

9:00-10:30am Blvd A (L2)

[Designing, Supporting, and Enacting Elementary Science Units for Teacher Phenomenon Adaptation](#)

SC-Organized Paper Set

Strand 3: Science Teaching — Primary School (Grades preK-6): Characteristics and Strategies

9:00-10:30am Blvd C (L2)

Chemistry Learning and Teaching: Contexts, Characteristics, and Interactions

SC-Organized Paper Set

Strand 7: Pre-service Science Teacher Education

9:00-10:30am PDR 2 (L3)

Understanding Participation in Citizen Science and Science Communication

SC-Organized Paper Set

Strand 6: Science Learning in Informal Contexts

10:45am-12:15pm Salon A1 (LL)

Evidence based Instructional strategies to improve student learning

SC-Organized Paper Set

Strand 10: Curriculum and Assessment

10:45am-12:15pm Salon A2 (LL)

Science Teachers' Views and Enactment of Culturally and Linguistically Responsive Instruction

SC-Organized Paper Set

Strand 8: In-service Science Teacher Education

10:45am-12:15pm Salon A3 (LL)

Teacher Learning at the Intersections of Science and Technology

SC-Organized Paper Set

Strand 8: In-service Science Teacher Education

10:45am-12:15pm Salon A4 (LL)

Promoting students' interest in sustainability

SC-Organized Paper Set

Strand 14: Environmental Education and Sustainability

10:45am-12:15pm Salon A5 (LL)

Roundtables 3

Roundtable Session

T1: Student and teacher identity (Dyess, Boxerman, McDonald)

T2: NOS Goals and Strategies (Ahne, Khishfe, Wagner, Bennett)

T3: Climate change awareness and conservation (Hagevik, Fazio, Wyner)

T4: Curriculum and Implementation Studies (Bernhard, Malone, Ogan-Bekiroglu, Lima)

10:45am-12:15pm Salon C1-2 (LL)

Teaching Difficult STEM Content

SC-Organized Paper Set

Strand 5: College Science Teaching and Learning (Grades 13-20)

10:45am-12:15pm Salon C3-4 (LL)

Internationalization of Rural Science Teacher Preparation in the United States

Symposium

Strand 7: Pre-service Science Teacher Education

10:45am-12:15pm Salon C5-6 (LL)

Students Ways of Thinking

SC-Organized Paper Set

Strand 2: Science Learning: Contexts, Characteristics and Interactions

10:45am-12:15pm Salon C7-8 (LL)

Artificial Intelligence and Machine Learning in Science Education

SC-Organized Paper Set

Strand 12: Technology for Teaching, Learning, and Research

10:45am-12:15pm Blvd A (L2)

Equity and Community

SC-Organized Paper Set

Strand 15: Policy, Reform, and Program Evaluation

10:45am-12:15pm Blvd C (L2)

Leveraging the Arts to Center Equity, Justice, and People of Color in Science Education

Related Paper Set

Strand 11: Cultural, Social, and Gender Issues

10:45am-12:15pm PDR 2 (L3)

Cultural and Cognitive Approaches to Student Learning

SC-Organized Paper Set

Strand 4: Science Teaching — Middle and High School (Grades 5-12): Characteristics and Strategies

1:45-3:15pm Salon A1 (LL)

Science Identity for k-12 Learners: Where we've been, where we're going

SC-Organized Paper Set

Strand 11: Cultural, Social, and Gender Issues

1:45-3:15pm Salon A2 (LL)

Types of talk: insights into the role of Discourse and Talk in science teacher preparation

SC-Organized Paper Set

Strand 7: Pre-service Science Teacher Education

1:45-3:15pm Salon A3 (LL)

Research investigating self-efficacy in preparing STEM teachers

SC-Organized Paper Set

Strand 7: Pre-service Science Teacher Education

1:45-3:15pm Salon A4 (LL)

Unpacking "Relevance" as a Design Aim for Instructional Materials: In What Ways? For Whom?

Related Paper Set

Strand 10: Curriculum and Assessment

1:45-3:15pm Salon A5 (LL)

10 years on: Rethinking NGSS's Underlying Principles from Ethical and Posthuman Perspectives

Symposium

Strand 2: Science Learning: Contexts, Characteristics and Interactions

1:45-3:15pm Salon C1-2 (LL)

Supporting Teachers To Support Student Talk: Multidimensional Examination of Collaborative and Participatory Professional Learning Contexts

SC-Organized Paper Set

Strand 8: In-service Science Teacher Education

1:45-3:15pm Salon C3-4 (LL)

Symposium on Science Teacher Leadership from Research and Practice Perspectives

Symposium

Strand 8: In-service Science Teacher Education

1:45-3:15pm Salon C5-6 (LL)

Creating reflexive and critical spaces: International perspectives on working with teachers towards equitable science education

Symposium

Strand 11: Cultural, Social, and Gender Issues

1:45-3:15pm Salon C7-8 (LL)

Ontology and Epistemology in Science Classrooms

SC-Organized Paper Set

Strand 1: Science Learning: Development of student understanding

1:45-3:15pm Blvd A (L2)

Language and Elementary Science Teaching

SC-Organized Paper Set

Strand 3: Science Teaching — Primary School (Grades preK-6): Characteristics and Strategies

1:45-3:15pm Blvd C (L2)

Community environmental issues

SC-Organized Paper Set

Strand 14: Environmental Education and Sustainability

1:45-3:15pm PDR 2 (L3)

Special Topics in Physics Education Research

SC-Organized Paper Set

Strand 5: College Science Teaching and Learning (Grades 13-20)

3:15-4:15pm Salon A1 (LL)

Closing Session

Plenary Session

Looking ahead to the 2024 Conference

Gillian Roehrig, outgoing NARST President: Showing appreciation for Board and Committee leadership

Jomo Mutegi, incoming NARST President: NARST Goals and Inspiration

5:00-10:00pm Off-Site

Board Meeting

Committee Meeting

Friday, 28 April, 2023

7:00-7:30am Zoom A

Welcome Session

Plenary Session

Welcome from President Gill Roehrig and Conference Overview

7:45-8:45am Zoom A

Representations of Science

SC-Organized Paper Set

7:45-8:45am Zoom B

Exploring Ideas in STEM

SC-Organized Paper Set

8:45-9:15am Zoom A

Breakout Room Discussions

Discussion Session

Multiple breakout rooms will be available.

8:45-9:15am Zoom B

Breakout Room Discussions

Discussion Session

Multiple breakout rooms will be available.

9:30-10:30am Zoom A

Science Education Research Innovations

SC-Organized Paper Set

9:30-10:30am Zoom B

Seeing Science Education Differently

SC-Organized Paper Set

10:45am-12:00pm Zoom A

Beyond Absolutes: Expanding Conceptions of Science and Teaching with Preservice Science Teachers

Related Paper Set

10:45-11:45am Zoom B

STEM and Identity

SC-Organized Paper Set

12:15-1:00pm Zoom A

Poster Session

Poster Session

Poster presenters will be assigned to individual Zoom rooms. Participants will be able to change rooms to speak with several presenters.

2:00-3:00pm Zoom A

Creating Connections in Science Teaching and Learning

SC-Organized Paper Set

2:00-3:00pm Zoom B

[Integrating Engineering and Science](#)

SC-Organized Paper Set

3:15-4:15pm Zoom A

[Pedagogical Innovations in Science Education](#)

SC-Organized Paper Set

3:15-4:15pm Zoom B

[The Power of Relationships in Science](#)

SC-Organized Paper Set

4:15-4:40pm Zoom A

[Breakout Room Discussions](#)

Discussion Session

Multiple breakout rooms will be available for discussion and networking.

4:15-4:40pm Zoom B

[Breakout Room Discussions](#)

Discussion Session

Multiple breakout rooms will be available for discussion and networking.

4:40-5:00pm Zoom A

[Closing Session](#)

Plenary Session

Join the closing session for remarks by outgoing President Gillian Roehrig and incoming President Jomo Mutegi