

# SERS 2023 ORGANIZING COMMITTEE



**Dr. Gayle A. Buck**  
Faculty advisor

## Student Committee Members

**Jingyun (Joey) Wu**  
Doctoral Student



**Taiwo Ogundapo**  
Doctoral Student

**Arya Karumanthra**  
Doctoral Student



**Esther Kataate  
Namakula**  
Doctoral Student



**Tajinder Saroya**  
Doctoral Student



**SCAN TO RSVP**

## CONTACT

201 N. Rose Ave.  
Bloomington,  
Indiana 47405

# SERS 2023

Science Education  
Research Symposium  
2023

## ABOUT SERS

The 2023 Science Education Research Symposium is a free, student-run symposium. We offer graduate students a safe venue to gain experience in presenting, organizing, and attending professional conferences. This symposium is the first Science Education Symposium held since the occurrence of COVID-19 pandemic.

This year's symposium will be held in-person and virtually on April 6, 2023. This year's theme is: Towards a more Robust and Equitable Science Education.

## ZOOM-IN OPTION

<https://iu.zoom.us/j/8211803200>



**JOB PANEL**  
**2:30-3:30**

**Alex Gerber**  
Science Ed Alumni



**Tulana Ariyaratne**  
Ph.D. Candidate

**Jessica Rae McClain**  
Ph.D. Candidate



**SCHEDULE**

8:45-9:10 Atrium	Refreshments & Coffee
9:10-10:10 Room 2140 Individual Presentation	A Meta-synthesis of Research in Science Education in K-12 Settings in Refugee Context: Implications for Advancing Equitable Science Teaching and Learning <i>Shukufe Rahman</i>
	Transgender and Minority Gender Students' Sense of Belongingness in Higher Education: Exploring the Difference Between STEM and non-STEM Majors <i>Tulana Ariyaratne</i>
	A Meta-synthesis Study to Analyze Linguistic and Psychological Needs of Refugee Students in Science Education Settings. <i>Arya Karumanthra</i>

	Designing an observational tool based on core practices for the secondary science early field experience <i>Kraig Kitts</i>
9:10-10:10 Room 2100 Individual Presentation	Integrating NOS and Peer Critique in Teaching Open Scientific Inquiry in Environmental Science: Action Research <i>Esther Kataate Namakula, Nader El Ahmadi, Valarie L. Akerson</i>
	Using Indigenous Knowledge To Enhance Students' Understanding Of Environmental Topics And Promote Global And Equitable Learning In The Classroom <i>Nader El Ahmadi</i>
	Using Photovoice to Promote Preservice Teachers' Socioscientific Reasoning Skills <i>Conghui Liu</i>
10:20-11:20 Room 2140 Individual Presentation	Providing Support to Preservice Science Teachers through Learning Communities - <i>Taiwo Ogundapo, Meredith Park Rogers</i>
	Examining Pre-Service Teachers' Experiences in Facilitating Argumentation-focused Discussions within the Virtual Teaching Simulator <i>Kady Lane, Taiwo Jumoke Ogundapo, Arya Karumanthra, Esther Kataate Namakula, Jingyun Wu, &amp; Meredith Park Rogers</i>
	Investigating Secondary Preservice and Inservice Science Teachers' Epistemological Knowledge about Models <i>Qiu Zhong</i>
10:20-11:20 Room 2100 Individual Presentation	Using text network mapping to analyze differences in STEM integration conceptualizations among STEM disciplines <i>Spencer Perry</i>
	Emerging themes in post-pandemic instructional improvements in Chemistry Education <i>Tulana Ariyaratne</i>

	Too little or Too Much or Not There? A Portrait of science teaching within the Rohingya Refugee camps in Bangladesh <i>Shukufe Rahman</i>
	Embodied learning approach in science education <i>Tajinder Saroya</i>
11:30-12:30 Roundtable Session Atrium	Adding Scientists' Voice: Developing Secondary Science Teachers' Socioscientific Reasoning in a Professional Development Program <i>Conghui Liu</i>
	Facilitating Conceptual Change in Science Teacher Education: A Refined Cognitive Conflict Approach <i>Joey Wu</i>
	The role of orientations in the development of physics teachers' PCK and the impact they have on students' outcomes. A meta-analysis <i>Esther Kataate Namakula</i>
12:30-1:30 Atrium	Lunch
1:20-2:15 Room 2140 Individual presentation	College Students' Views of the Nature of Science <i>Stephanie Marin Rothman</i>
	Considerations on the use of ecological language in science 'edutainment' videos <i>Claire Cesljev</i>
2:30-3:30 Room 2140	Job Panel <i>Alex Gerber, Tulana Ariyaratne, &amp; Jessica Rae McClain</i>
3:30-5:00 Asuka Restaurant	Happy Hour