

## Mineral Resources Program Science Symposium - *Minerals Across the Matrix*

Colorado School of Mines (MINES) Golden, Colorado USA

Ben Parker Student Center Grand Ballrooms

March 19-21, 2024

### Agenda - Times approximate

<b>Day 1 Tuesday March 19: The Program and the People</b>	
7:30 AM	Registration & Poster Set Up
<b>Day 1 Morning Part 1: Meeting Kick-off (MC Colin Williams)</b>	
	<b>Colin Williams</b> - USGS Mineral Resources Program Coordinator Introduction, Meeting Logistics, Mineral Resources Program Overview
8:30 AM	<b>Sarah Ryker</b> – USGS Energy and Mineral Resources Associate Director Opening Remarks - A View from the Mission Area
9:00 AM	<b>Walter Copan</b> , Vice President for Research and Technology Transfer, Colorado School of Mines Welcoming Remarks
<b>Day 1 Morning Part 2: MRP Program Elements</b>	
9:15 AM	Introduction: Program Element Talks ( <b>MC Tanya Gallegos</b> )
	SS-A1- <b>Doug Kreiner</b> - Directions in Mineral Systems Research
	SS-A2- <b>Josh Coyan</b> - Advances in Resource Assessments
	SS-A3- <b>Jamey Jones and Darcy McPhee</b> - Earth MRI
10:20 AM	Q&A Panel Discussion
10:35 AM	Networking and Poster Break
<b>Day 1 Morning Part 3: Mineral Information and Supply Chain Analysis</b>	
11:05 AM	Introduction: NMIC Talks ( <b>MC - Dan Hayba</b> )
	SS-B1- <b>Joe Gambogi</b> - NMIC Supporting Defense Stockpile Analysis
	SS-B2- <b>Andrew Gulley</b> - Chinese control over cobalt from 2000 through 2022
	SS-B3- <b>Elisa Alonso</b> - Mineral Criticality and Supply Chain Forecasting
	Q&A Panel Discussion
12:10 PM	Lunch on your own
<b>Day 1 Afternoon Part 1: Lightning Talks - NMIC, Research &amp; Assessments, Earth MRI</b>	
1:40 PM	Introduction: Lightning Talks ( <b>MC-Allen Andersen</b> )
	LT-A1-Lightning Talk- <b>John Ryter</b> , NMIC
	LT-A2-Lightning Talk- <b>Amanda Brioche</b> , NMIC
	LT-A3-Lightning Talk- <b>Robert Mcdermott</b> , ASC
	LT-A4-Lightning Talk- <b>Mario Guzman</b> , GGG
	LT-A5-Lightning Talk- <b>Jackson Stone Borchardt</b> , GGG

	LT-A6-Lightning Talk- <b>Jordan Craft</b> , GGG
	LT-A7-Lightning Talk- <b>Kelsey Crocker</b> , GMEG
	LT-A8-Lightning Talk- <b>Anahita Tikku</b> , GGG
	LT-A9-Lightning Talk- <b>Ross Salerno</b> , GEM
	LT-A10-Lightning Talk- <b>Neil Griffis</b> , GGG
	LT-A11-Lightning Talk- <b>Cameron M. Mercer</b> , GGG
	LT-A12-Lightning Talk- <b>Kate Souders</b> , GGG
	LT-A13-Lightning Talk- <b>Kristian Price</b> , GGG
	LT-A14-Lightning Talk- <b>Julia McIntosh</b> , GGG
	LT-A15-Lightning Talk- <b>Hope Ianiri</b> , PCMS
	LT-A16-Lightning Talk- <b>Maria Figueroa Matias</b> , PCMS
	Lt-A17-Lightning Talk- <b>Jacob Poletti</b> , GMEG
	LT-A18-Lightning Talk- <b>Erin Benson</b> , GMEG
	LT-A19-Lightning Talk- <b>Michael (Chris) Jenkins</b> , GMEG
	LT-A20-Lightning Talk- <b>Laura Pianowski</b> , GGG
	LT-A21-Lightning Talk- <b>Benjamin Magnin</b> , GGG
	LT-A22-Lightning Talk- <b>Mitchell Bennett</b> , GGG
	LT-A23-Lightning Talk- <b>Stan Mordensky</b> , GMEG
	LT-A24-Lightning Talk- <b>Callum Walter</b> , GMEG
	LT-A25-Lightning Talk- <b>Lucas Evert</b> , GMEG
	LT-A26-Lightning Talk- <b>Dana Peterson</b> , GGG
	LT-A27- <b>Keith Labay (remote)</b> - Geochemical Database Demo
3:15 PM	Networking and Poster Break
Day 1 Afternoon Part 2: Science Collaborations and Opportunities in Programs Outside MRP	
3:50 PM	Introduction ( <b>MC Ross Salerno/Mike Cosca</b> )
	ST-A1- <b>Chris Swezey (remote)</b> : NCGMP
	ST-A2- <b>Katharine Dahm</b> : The ASIST Project
	ST-A3- <b>Katie Walton-Day</b> : Environmental Health/Minerals IST
	ST-A4- <b>Alicia Lindauer</b> : Energy Resources Program
	ST-A5- <b>Lindsay Powers</b> : NGGDPP Data Preservation
	Q&A Panel Discussion ( <b>MC Mike Cosca</b> )
4:50 PM	Day 1 Wrap up and Adjourn
5:00 PM	On your own
6:00 PM	Evening Event: (6P-8P) Mines Geology Museum Tour

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<b>Day 2 Wednesday March 20: Select Science Themes</b>	
8:30 AM	Welcome Day 2 ( <b>Moji KunleDare</b> )
Day 2 Morning Part 1: Mineral Life Cycle Studies	
8:32 AM	Introduction: <b>George Case</b> - Commodity Lifecycle Session
	SS-C1- <b>Graham Lederer</b> : Economics of flake graphite and unique challenges of modeling an industrial commodity
	SS-C2- <b>George Case</b> : Developing graphite mineral system models for a mineral resource assessment
	SS-C3- <b>Patricia MacQueen</b> : Mapping graphite mineralization using EMRI surveys
	SS-C4- <b>Rebecca Stokes (remote)</b> : Geologic controls on graphite quality and suitability for the emerging EV market
	Q&A Panel Discussion
9:55 AM	Networking and Poster Break
Day 2 Morning Part 2: Mine Waste / Environmental	
10:40 AM	Introduction to Mine Waste/Environmental Session ( <b>MC - Sarah Jane White</b> )
	SS-D1- <b>Nadine Piatak</b> : Mineralogy of critical minerals in mine waste with implications for recovery
	SS-D2- <b>Courtney Creamer</b> : Benefits and unintended consequences during experimental phytoremediation of mining wastes
	SS-D3- <b>JoAnn Holloway</b> : Remobilization of trace metals associated with mine wastes in a burned watershed, Lemhi County, ID
	Q&A Panel Discussion
11:50 AM	Brief intro-Lightning Talks ( <b>MC Sarah Jane White</b> )
	LT-B1-Lightning Talk - <b>Bryan Killingsworth</b> , GEM
	LT-B2-Lightning Talk - <b>Kathryn Hobart</b> , GGG
	LT-B3-Lightning Talk - <b>Alex Taylor</b> , GEM
	LT-B4-Lightning Talk - <b>Sarah Hayes</b> , GEM
	LT-B5-Lightning Talk - <b>Sarah Jane White</b> , GEM
	LT-B6-Lightning Talk - <b>Autumn Helfrich</b> , GGG
	LT-B7-Lightning Talk - <b>Justin Pierson</b> , GGG
	LT-B8-Lightning Talk - <b>Chloe Gustafson</b> , GGG
	LT-B9-Lightning Talk - <b>Jay Thompson</b> , GGG
	LT-B10-Lightning Talk - <b>Zikri Arslan</b> , GGG
12:25 PM	Lunch on your own

Day 2 Afternoon Part 1: New science opportunities- Over the horizon-longer term	
1:55 PM	Introduction: New science opportunities- Over the horizon-longer term ( <b>MC Anahita "Ani" Tikku</b> )
	ST-B1- <b>Bob Seal</b> : Minerals are the new energy/Triage Project/Cross-Agency collaboration
	ST-B2 - <b>Josh Rosera</b> : Critical Mineral Assessments with AI Support (CriticalMAAS): Magmatic nickel prospectivity results from the Denver hackathon, February 2024
	ST-B4 - <b>Burke Minsley</b> : GSPy: A new geophysical data standard and software tools to support open science
	ST-B3 - <b>Colin Williams</b> : Industrial Minerals/Construction Materials
	ST-B5 - <b>Sarah Ryker</b> : The Future of Earth MRI
	Q&A Panel Discussion
3:10 PM	Networking and Poster Break
Day 2 Afternoon Part 2: Program Forum	
3:50 PM	Introduction ( <b>MC Moji KunleDare</b> )
3:55 PM	<b>Colin Williams and Program Staff</b> : MRP Plans & Near-Term Goals
4:30 PM	<b>Group Discussion</b> : New FY25 Project Proposal Brainstorming. How can we better leverage our science for new directions? What are we missing? What should we be working on? This session is an opportunity for scientists to solicit help for near- term project ideas for the FY25 project cycle as well as ask questions about the process, guidance, priorities, and plans.
5:00 PM	Day 1 Wrap up and Adjourn

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<b>Day 3 Thursday March 21: Implementing Our Science Plans</b>	
Day 3 Morning Part 1: Seasoned Scientists' Perspectives and Science Communication	
8:30 AM	Welcome Day 3 Morning Part 1: ( <b>Tanya Gallegos</b> )
8:32 AM	Introduction ( <b>MC Mike Cosca</b> )
8:35 AM	Pathways, Perspectives from Seasoned Scientists - Career Highlights and Success Stories and Advice for Future Success, Successes and Challenges ( <u>panel of 5- short 5-minute presentation followed by Q&amp;A /open discussion</u> ) ( <b>Mike Cosca, Carol Finn, Sue Karl, Dan Hayba, Bill Cannon</b> )
9:35 AM	Introduction: Ideas for Better Science Communication ( <b>MC JoAnn Holloway</b> )
	ST-E1-Communications tools for better science communication that the scientists could use and talking with the press ( <b>Eliza Malakoff</b> )
	ST-E2-Geonarratives for storytelling and new mapper for projects ( <b>Jim Mosley</b> )
	ST-E3-MRPOP, webpages-speaker <b>Maria Montour</b> - MRPOP, web pages
	ST-E4-How USGS Talks to Congress- <b>Jeff Onizuk (remote)</b>
	Q&A Panel Discussion
10:40 AM	Short Break
Day 3 Morning Part 2: Turning Ideas into Actionable Science Across the Matrix ( <b>MC Jamey Jones</b> )	
11:00 AM	<b>Leadership Panel: Colin Williams, Chris Zimmerman, Chris Moses, Tina Roberts-Ashby, Karen Jenni, Dan Hayba</b> . This session is designed as a Q&A for leadership on how they support new science ideas and help build opportunities for collaboration. This will be helpful for understanding how we can implement our ideas and better leverage our science for new directions, work across the Science Centers/Programs, and provide space for more diverse participants and perspectives, connect with other programs, other agencies, stakeholders (e.g., other federal agencies, State Geological Surveys, academia).
11:55 AM	<b>Closing Remarks (Colin Williams)</b>
12:00 PM	<b>Adjourn and Poster Break Down</b>
12:00 PM	Lunch on your own
2:00 PM - 3:30 PM	<b>(Optional) Edgar Mine Tour</b>  Location: Colorado School of Mines Edgar Mine: <a href="https://mining.mines.edu/edgar-experimental-mine/">https://mining.mines.edu/edgar-experimental-mine/</a>  Transportation: You must provide your own transportation - car pooling recommended  Further details will be provided for those who sign up.