

ASEE Rocky Mountain Section Conference 2024

May 15-17, 2024 at the University of Colorado Boulder

Conference Registration - Outside KOBL 352

Wednesday May 15

Wednesday, 5/15/2024, 1:00PM - 2:30PM (Concurrent Sessions: 1A in ECCS 201 and 1B in KOBL 352)

1:00 PM	Session 1A (ECCS 201)	# 78 A Strategy to Harness the Benefits and Mitigate the Drawbacks of Blackboard and Slide Teaching Methods	Lightning Talk	Youjian (Eugene) Liu
		# 16 Work in Progress: Place-based Engineering with Rural Schools: Investigating the Science and Engineering Inquiry Collaborative (SCENIC) in Colorado	Paper	Ms. Loraine Glidewell, Ms. Marisa Mendoza-Maurer, Prof. Joseph Polman, Dr. Daniel Knight, Prof. Angela (Angie) Bielefeldt
		# 22 Toward Interdisciplinary Space Weather Curriculum for High School Physics: Designing at the Intersection of Physics, Earth and Space Science, and Engineering	Paper	Dr. Erin Furtak, Ms. Caitlin Anderson, Ms. Shannon Boutwell, Mr. Sam Haven, Ms. Melinda Lopez, Ms. Samantha Duwe, Dr. Janet Green, Dr. Adam Kellerman, Dr. Linda Parker, Prof. Lauren Blum
		# 7 TeachEngineering: Free, Teacher-tested K-12 STEM Resources	Lightning Talk	Ms. Ellen Parrish, Ms. Dua Chaker, Ms. Jennifer Kracha
		# 76 Quantum Scholars at CU Boulder: A Model for Quantum Workforce Development	Presentation	Dr. Ben Weihrach, Dr. Noah Finkelstein, Dr. Mike Ritzwoller, Mr. Sasha Novack
	Session 1B (KOBL 352)	# 56 Exploring Together: Engineering Education and AI	Lightning Talk	Mr. Dillon Gidcumb, Ms. Feliz Luna, Ms. Kayla Kohake, Ms. Grace Karegeannes
		# 49 WIP: Towards an AI Teaching Assistant for Aerospace Engineering Lab Courses	Paper	Prof. Bobby Hodgkinson
		# 12 Quantum Computing Conceptual Survey: Progress and Next Steps	Presentation	Ms. Josephine Meyer, Dr. Gina Passante, Dr. Steven Pollock, Dr. Bethany Wilcox
		# 50 Lessons Learned: Gaming for Novel Optimization of Managing Energy Systems for Homes (GNOMES for Homes)	Presentation	Dr. Aisling Pigott, Dr. Jacob Kravits, Prof. Kyri Baker

2:30 PM

Break and Refreshments, 2:30 - 3:00PM outside ECCS 201

Wednesday, 5/15/2024, 3:00PM - 4:30PM (Concurrent Sessions: 2A in ECCS 201 and 2B in KOBL 352)

3:00 PM	Session 2A (ECCS 201)	# 64 Blending Sustainability and Polymer Science	Lightning Talk	Dr. German Parada
		# 14 Innovative curriculum development on plastic pollution: Getting students excited with solving real-world problems	Lightning Talk	Prof. Sung Hee Joo
		# 39 First-Year Bridge Program at "Western Teaching University"	Paper	Dr. Randy Hurd, Mr. Sulabh Khadka, Dr. Yudi Lewis, Ms. Alicia Christensen, Dr. Dustin Grote
		# 24 Getting Caught Up: Winter Calculus 1	Presentation	Prof. Robert Benim, Prof. Silva Chang
		# 48 Second Chances: Core Mastery Testing for a Large Calculus Course	Presentation	Prof. Silva Chang, Prof. Robert Benim
	Session 2B (KOBL 352)	# 34 Work In Progress: The Lattice Scholars Program: Redefining Engineering Education through Financial Wellness for State's First-Generation Engineers	Paper	Mx. Jenna Greenwood, Mr. Philip Courey, Ms. Amanda Parker, Dr. Malinda Zarske
		# 3 Creative Engineering Design: Engaging Students in Equity- and Sustainability-Focused Engineering	Workshop 1	Ms. Jennifer Taylor

4:30 PM

Welcome Mixer & Refreshments, 4:30 - 6:00PM in ECCS 201 and surrounding areas

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Thursday May 16				
8:15 AM	Breakfast 8:15 - 10:00AM in ECCS 201 and surrounding areas			
8:30 AM	Welcome by Dr. Keith Molenaar, Dean of College of Engineering and Applied Sciences in ECCS 201			
9:00 AM	Keynote # 1 - Alex Dietrich in ECCS 201			
Thursday, 5/16/2024, 10:00 - 11:30AM (Concurrent Sessions: 3A in ECCS 201 and 3B in KOBL 352)				
10:00 AM	Session 3A (ECCS 201)	# 46 CS0 For STEM Undergraduates: Lesson Learned	Lightning Talk	Dr. Christine Liebe, Dr. Rob Thompson, Ms. Katherine Limes
		# 65 Asynchronous "Guided Learning Activities" to increase student engagement	Lightning Talk	Dr. Alex Saltzman
		# 27 Curriculum Revision for Large Courses: Data-driven Strategies for Increased Engagement and Student Success	Presentation	Dr. Warren Sconiers, Dr. Caitlin Kelly, Dr. Andrew Martin, Dr. Teresa Bilinski, Dr. Abbey Paulson, Ms. Micaela Seaver, Dr. Alexa Clemmons, Dr. Ashley Rowland
		# 36 Data-infused model of sprinting in an introductory ODE course for STEM students	Paper	Dr. Maila Hallare, Dr. Beth Schaubroeck, Dr. Kevin Treat
		# 18 Catalyzing Active Learning in Undergraduate STEM Education: Lessons Learned from the Calculus Sequence	Presentation	Prof. David Webb
		# 55 Engineering Problem Solving: Implementing a New Foundational Engineering Course	Paper	Dr. Timothy Frank, Dr. Daphne Deporres, Dr. Emily Stoneham, Dr. Joel Sloan, Dr. Vincent Bongionanni, Dr. Eric Tucker
	Session 3B (KOBL 352)	# 13 Teaching ethics, quantum-style	Workshop 2	Ms. Josephine Meyer, Ms. Joan Arrow
11:30 AM	Lunch & ASEE RMS Business Meeting 11:30 - 1:00PM in ECCS 201 and surrounding areas			
Thursday, 5/16/2024, 1:00 - 2:30PM (Concurrent Sessions: 4A in ECCS 201 and 4B in KOBL 352)				
1:00 PM	Session 4A (ECCS 201)	# 44 Get the Facts Out! How to Increase the Number and Diversity of Your Majors	Presentation	Dr. Sabina Schill, Dr. Wendy Adams
		# 40 Work-in-Progress: Neurodivergence and Intersecting Demographics Among Engineering Students	Paper	Dr. Angela Bielefeldt, Dr. Azadeh Bolhari
		# 68 Explorations of Engineering Identity Formation and Gender Expression	Lightning Talk	Ms. Lucy Gilbert-Fagen, Ms. Kylee Shiekh, Dr. Dean Nieusma
		# 10 Teaching engineering students about social inequities using quantitative data	Presentation	Dr. Aramati Casper, Dr. Aditi Bhaskar, Dr. Rebecca Atadero
		# 81 The BOLD (Broadening Opportunity through Leadership & Diversity) Center Open House	Presentation & BOLD Center Tour at ECCE 100	Amy Moreno-Sherwood
	Session 4B (KOBL 352)	# 74 Failing with Style: Implementing Purposeful Failures and Active Resilience into Engineering Education Practices	Workshop 3	Mx. Mary M Bevilacqua
2:30 PM	Break & Refreshments 2:30 - 3:00PM outside ECCS 201			
Thursday, 5/16/2024, 3:00 - 4:30PM (Concurrent Sessions: 5A in ECCS 201 and 5B in in KOBL 352)				
3:00 PM	Session 5A (ECCS 201)	# 60 Enhancing Engineering Students' Cultural Competence through a Transnational Course	Lightning Talk	Dr. Pinar Omur-Ozbek
		# 26 Advancing Diversity in Humanitarian Engineering Education: Unveiling the Value of Investing in Marginalized Graduate Students' Cultural and Social Capital.	Paper	Ms. Emma Stine, Prof. Amy Javernick-Will, Dr. Tiera Tanksley
		# 51 Start with Connection for Better Classroom Engagement	Lightning Talk	Dr. Dan Baker
		# 63 Work In Progress: A Scoping Review of Social Network Analysis Methods in Engineering Education	Paper	Mr. Alex Nielson, Dr. Jack Elliott
		# 75 Coaching Engineers: What Engineering Education Has to Learn from Coaching Practices and Sports Psychology	Presentation	Mx. Mary M Bevilacqua
	# 66 The Critical Role of Faculty in Neurodivergent Engineering Student Success and Mental Health: A Conceptual Approach	Paper	Dr. Katherine Robert	
	Session 5B (KOBL 352)	# 47 Working Together to Build an Intentional Team/Group Environment	Workshop 4	Dr. Brian Self, Dr. Daria Kotys-Schwartz
4:45 PM	Poster Session in areas surrounding KOBL 352			
5:45 PM	Dinner in ECCS 201 and surrounding areas			
6:00 PM	Keynote Speaker # 2 - Dan Baker in ECCS 201			

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Friday May 17

8:15 AM Breakfast 8:15 - 10:00AM in ECCS 201 and surrounding areas

8:30 AM Keynote Speaker # 3 - Kevin Terry in ECCS 201

Friday, 5/17/2024, 10:00 - 11:30AM (Concurrent Sessions: 6A in in ECCS 201 and 6B in KOBL 352)

10:00 AM	Session 6A (ECCS 201)	# 52 Why Teach Art in Engineering?	Presentation	Prof. Jean Hertzberg
		# 31 How can we ensure engineering students consider the human dimensions of manufacturing?	Lightning Talk	Dr. Janet Tsai, Dr. Joey Valle
		# 70 Work in Progress: What is Design in the Context of a Mechanical Engineering Ph.D. Program?	Paper	Dr. Grace Burleson, Dr. Janet Tsai, Dr. Daria Kotys-Schwartz
		# 30 Build Your Own Bug: Addressing NGSS Needs with Bioinspired Robots	Presentation	Dr. Srinjita Bhaduri, Dr. Kaushik Jayaram, Dr. Alexandra Rose
		# 62 Teaching Engineering Ethics in 2024: A Lightning Discussion on Definitions, Successes, and Failures Across Disciplines	Lightning Talk	Dr. Sarah Stanford-McIntyre, Dr. Daria Kotys-Schwartz, Dr. Janet Tsai
		# 8 Increasing engineering student engagement through co-curricular, interdisciplinary, undergraduate research	Presentation	Prof. Barbra Sobhani, Dr. Veronica Corral
	Session 6B (KOBL 352)	# 58 Hands-on Precalculus for Engineering: A Key Feature of a Two-Quarter Interdisciplinary Learning Community for Aspiring Engineering Majors	Presentation	Prof. Eric Davishahl
		# 19 A Joint Capstone Project Between Welders and Engineers to Foster Mutual Respect	Presentation	Dr. Megan Sanders, Prof. Jonah Klemm-Toole, Prof. Jessica Smith
		# 17 Building Locker Mini-Worlds: A CAD Course with a Semester-Long Project	Paper	Mr. Ruhan Yang, Dr. Ellen Do
		# 41 Capstone Design – A Student Signature Experience Program at Colorado School of Mines	Presentation	Dr. Alina Handorean, Dr. Kristy Csavina
		# 37 Work in Progress: Sustainability in First-Year Engineering Design: A Collaborative Approach	Paper	Dr. Angela Bielefeldt, Dr. Katherine Ramos, Dr. Joan Tisdale

11:30 AM Break 11:30 - 12:00PM

12:00 PM Local Excursions

Excursion 1: Boulder Campus Tree Tour (90 minutes) Start at Noon End at 1:30PM

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Thursday, 5/16/2024, 4:45 - 5:45PM Poster Session in areas surrounding KOBL 352

4:45 PM

Poster
session in
areas
surrounding
KOBL 352

# 11 Educational initiatives at the Quantum Ethics Project	Poster	Ms. Josephine Meyer, Ms. Joan Arrow, Mr. Rodrigo Araiza Bravo, Ms. Anna KnÖrr, Ms. Sara Marsh, Mr. Zeki Seskir, Dr. David Sidi
# 32 Innovative Use of ChatGPT4 for Analyzing Learner Feedback	Poster	Prof. Wendy Martin
# 33 TeachEngineering: Ignite STEM Learning in K-12	Poster	Ms. Jennifer Kracha, Ms. Ellen Parrish, Ms. Dua Chaker
# 42 Incentive to Grow - Apprenticeships to Employments	Poster	Mr. Andy Angstrom
# 43 Integrating ethics in technical AI curricula: A pilot study on college students' perceptions and learning outcomes	Poster	Dr. Theodora Chaspari, Dr. James Hammerman
# 53 Assessing Engineering Students' Competence in Social and Environmental Justice Through Global Water Challenges Discussions	Poster	Ms. Katie Lennie, Ms. Tess Gardner, Dr. Pinar Omur-Ozbek
# 59 Exploring Equity and Ethics in the Workplace: An Analysis of Interviews with Early Career Engineers	Poster	Ms. Chika Winnifred Agha, Dr. Rebecca Atadero, Dr. Amir Hedayati, Dr. Pinar Omur-Ozbek
# 54 Investigating Student Experiences of Inclusion and Exclusion to Guide Makerspace Development - Work in Progress	Poster	Dr. Aubrey Wigner, Mrs. Brianna Alcorn, Mx. Cate Corry, Ms. Julianne Stevens, Dr. Dean Nieusma, Ms. Emily Fastoff
# 57 Collaborative Design Capstone by Students at Universities in Separate States	Poster	Dr. Jason Christopher, Dr. Michael Anderson, Dr. Ioan Feier
# 69 Role of Reflective Memos in Enhancing Associational Thinking Skill of Engineering Students	Poster	Ms. Anvie Gowrishankar, Ms. Maya Leizerovich, Mr. Shane Gavney, Dr. Azadeh Bolhari, Prof. Angela Bielefeldt
# 71 Role of Reflective Memos in Enhancing Experimentation Skill of Engineering Students	Poster	Ms. Maya Leizerovich, Ms. Anvie Gowrishankar, Mr. Shane Gavney, Dr. Azadeh Bolhari, Prof. Angela Bielefeldt
# 72 Role of Reflective Memos in Enhancing Questioning Skills of Engineering Students	Poster	Mr. Shane Gavney, Ms. Maya Leizerovich, Ms. Anvie Gowrishankar, Dr. Azadeh Bolhari, Prof. Angela Bielefeldt
# 28 K-band Radiometry Analysis for 5G Interference and Weather Forecasting	Poster	Jasleen Batra, Olivia Egbert, Daniel Orthel, Ahmed Zainaddin, Dulguun Baatarhuyag, Jonathan Tang, Prof. Al Gasiewski
# 79 Grandfather Clock	Poster	Eric Lei, Oscar Salazar Medina, Ben Pera, Nathan Sharp, Nestor Ruiz, Joe Warpe
# 80 Great Lunar Expedition for Everyone	Poster	Saud Almuzaiel, Robert Traxler, Jigme Fritz, Insar Magadeev, Ginn Sato, Caden McVey