SIAM
Society for Industrial and Applied Mathematics

19th Front Range Applied Mathematics (FRAM) Student Conference

University of Colorado - Denver

Saturday, March 11th, 2023

Sponsors: The SIAM Student Chapters at
University of Colorado: Boulder, Colorado Springs and Denver campuses
Colorado State University, Colorado School of Mines, MSU Denver, Colorado College, U. Wyoming

The Front Range SIAM Student Chapters are sponsoring the 19th Annual Applied Mathematics Regional Student Conference. This event allows students from all universities along the Front Range to learn about new developments in Applied Mathematics and promotes interest in the field. The conference is open to _both_ undergraduate and graduate students.

Registration Information

This will be an in-person conference. There will be a $10 student registration fee for in-person participants, to defray the cost of the refreshments, and $20 for faculty. *All speakers and conference attendees should fill out a short registration form so we can keep you updated with any changes.* For more information and to register, please visit the website: http://framsc.org.

Call for Presentations

There will be 20-minute student presentations. An industry panel will take place during lunchtime. A special MCM/ICM session will also be organized. Please send abstracts in LaTeX (.tex) or plain text (.txt) format to FRAMSC.abstracts@gmail.com. For more info, please check the conference website or contact the organizers.

Abstract submission deadline is Friday, March 3, 2023!

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Plenary Speaker

Dr. Steve Sain
Geospatial and Data Sciences, Jupiter Intelligence

Climate risk analytics and data science: Assessing risk in a changing climate

Abstract: There is a long history of research and development at the intersection of applied statistics, machine learning, and climate science that has led to improvements in our understanding of the Earth's climate and how that climate is changing, advances in climate modeling and the use of climate model output, and assessments of the impacts of climate change. The study of the impacts of climate change has provided the foundation for the emerging area of climate risk analytics, and data science is playing a key role in quantifying the impact of a changing climate on perils such as flood, heat, and fire. In this talk, I will briefly discuss some background on data science and climate science and highlight some current research areas at their intersection. In addition, I'll present an overview of climate risk analytics, focusing on research areas such as extremes, emulators, and downscaling. I'll also provide some examples of how companies and other organizations are using climate risk analytics to help assess and manage climate change-related risk.

Bio: Dr. Steve Sain is a Senior Principal Data Scientist and Senior Director, Geospatial and Data Sciences, at Jupiter Intelligence where in addition to heading the Data Sciences group he serves more broadly across Jupiter's science and technology organization. Prior to joining the team at Jupiter, Steve held faculty positions in statistics and applied mathematics and worked in industry as a data scientist where he has led data science research and development programs and data science teams. From 2006 to 2014, he was the head of the Geophysical Statistics Project and a scientist in the Institute for Mathematics Applied to Geosciences at the National Center for Atmospheric Research in Boulder, CO. Steve has long worked at the intersection of climate research and applied statistics, including a focus on spatial methods for large datasets, extremes, uncertainty quantification, and climate risk analytics. Steve is an affiliate faculty member in the University of Colorado's Department of Applied Mathematics, a fellow of the American Statistical Association, and past recipient of the Distinguished Achievement Award from the American Statistical Association's Section on Statistics and the Environment.

For more information, visit the conference website:
http://framsc.org