

Plenary Speaker

Dr. Jeanne Clelland

CU Boulder, Math



Gerrymandering: What is it, how can we measure it, and what can we do about it?

Abstract: Gerrymandering refers to the practice of drawing legislative districts so that one political party wins a disproportionate number of seats relative to their share of the electorate. But how can we tell whether or not districts have been drawn fairly? This is a legal question and, increasingly, a mathematical one, but the mathematical tools used to measure gerrymandering are relatively new and are still evolving rapidly. One promising approach involves using computational and statistical tools to compare a specific districting plan to an “ensemble” consisting of a large number of potential districting plans. This approach, referred to as “outlier analysis,” has the advantage of taking into account the inherent political geography of a region in a way that simpler measures cannot, and it has already begun to play a role in major court cases regarding redistricting in North Carolina, Pennsylvania, and elsewhere. In this talk I will describe how gerrymandering works and some of the mathematical tools that are being developed to detect it, with a focus on outlier analysis. I will also talk about an ongoing effort to collect data and perform this type of analysis for as many states as possible in advance of the next round of Congressional redistricting in 2021.

Call for Presentations

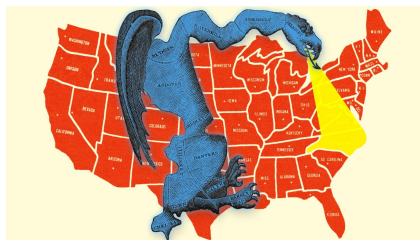
All students (both undergraduate and graduate) are invited to submit abstracts on any research topic in Applied Mathematics. Abstracts should include:

- Title of work to be presented,
- Author's name,
- The university the author is currently attending,
- Names of any advisors or other collaborators,
- An extended description of the research to be presented (of length no greater than 500 words).

Talks: All (except the plenary lecture) will be student presentation: 20-minute talks followed by 5 minutes for questions and set-up of the next speaker. A special MCM/ICM session will also be organized.

Please send abstracts in LaTeX or plain text to FRAMSC.abstracts@gmail.com

The abstract submission deadline is **Friday, February 28, 2020.**



**16th Front Range
Applied Mathematics
(FRAM)
Student Conference**

**University of Colorado
Denver**

**SATURDAY
MARCH 7TH, 2020**

SPONSORS:

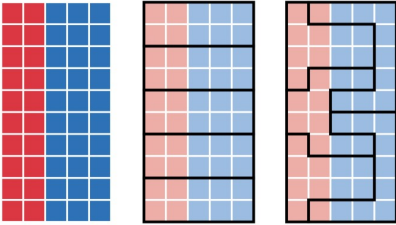
SIAM STUDENT CHAPTERS AT
University of Colorado, Boulder
University of Colorado, Colorado Springs
University of Colorado, Denver
Colorado State University
Colorado School of Mines
MSU Denver, Colorado College,
University of Wyoming

<http://framsc.org/>



About the conference

The Front Range SIAM Student Chapters are sponsoring the 15th Annual Applied Mathematics Regional Student (aka FRAM) 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. Additionally, this event is open to both undergraduate and graduate students.



SIAM Student Chapters

Several universities in Colorado host active SIAM Student chapters, with the mission to promote applied mathematics and computational science and to encourage young mathematicians to pursue these fields. Student chapters provide opportunities to share ideas, learn about careers in applied and computational mathematics and develop networks with faculty and fellow students.

Schedule of Events

The conference is scheduled for Saturday, March 7th 2020, 8:30am - 4pm. Exact schedule will be posted on the conference website. Events will include a plenary address and parallel sessions for student presentations. The conference will take place in the North Classroom building, on the Auraria campus in downtown Denver. For more details and directions, please visit the conference website

<http://framsc.org/>

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Registration Information

The registration fee is \$10 for students and \$20 for everyone else, to help defray the cost of the breakfast and lunch that will be provided at the conference. Cash or checks are welcomed. Checks should be written to "CU Denver SGA". Inquiries should be directed to Dr. Varis Carey (variscarey@gmail.com), faculty advisor of the CU Denver SIAM Student Chapter. For more student contacts, please visit <http://framsc.org>.

Registration and Breakfast will open at 8:30am with talks beginning at 9am. The conference will take place on the 4th floor of the Student Commons Building (1201 Larimer Street) on the Auraria campus, in downtown Denver.

Early registration is encouraged: If your university has multiple attendees please feel free to submit one check with the registration along with a list of the attendees. Contact the organizers for more details.

