Plenary Speaker

Dr. Benedetto Piccoli

Rutgers University - Camden

Modeling of Crowd Dynamics

During the holiday shopping season, malls seem to be as crowded as busy city streets. It's a pedestrian traffic jam from store to store as people try to navigate the pathways that will lead them to the perfect holiday gift, and maybe even a bargain. Trying to get around or through droves of people isn't just a science perfected by savvy shoppers. The modeling of such phenomena need to take into account various aspects, for instance psychology, which studies the cognitive processes behind the action of walking; and mathematics, which attempts to quantify the laws that govern the way crowds of people move or interact.

Topics will include:

1. The phenomenology of crowd dynamics: self-organization, patterns and cognitive processes.
2. Experiments with crowds: what to measure, how to measure, experimental settings.
3. Modeling crowd dynamics: choice of the scale, ODE and PDE models, new measure theory approach.
4. Measure-theory multi-scale models: math behind, properties of the model, numerics and simulations.

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 23, 2018.

14ᵗʰ Front Range Applied Mathematics (FRAM) Student Conference

University of Colorado Denver
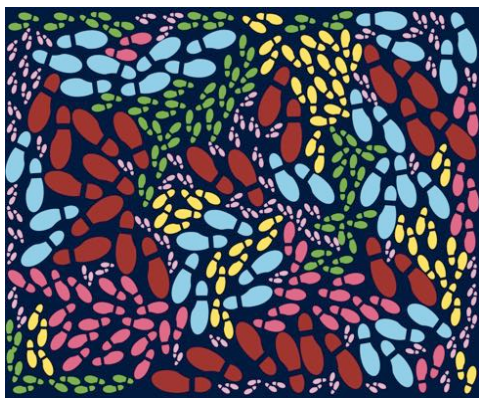
Saturday March 3ʳᵈ, 2018

Sponsors:
Siam Student Chapters at
**University of Colorado, Boulder
University of Colorado, Colorado Springs
University of Colorado, Denver
Colorado School of Mines
Colorado State University
Colorado College, Metro State,
University of Wyoming**

http://goo.gl/Tk2VXK

About the conference

The Front Range SIAM Student Chapters are sponsoring the 14th 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 <u>both</u> 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 3rd, 2018, between 8:30am and 4pm. Exact schedule will be posted on the conference website. Events will include a plenary address, parallel sessions for student presentations (including a special MCM/ICM session) and a poster session.

Location: The conference will take place in the North Classroom building, on the Auraria Campus Downtown. For more details and directions, please visit the conference website http://goo.gl/w1Uj8J.

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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 about registration should be directed to Dr. Varis Carey, Faculty Advisor (variscarey@googlemail.com), or Michael Phillips, President of the SIAM Student Chapter at CU Denver (Michael.2.Phillips@ucdenver.edu).

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.