



7th Front Range Applied Mathematics (FRAM) Student Conference

UNIVERSITY OF COLORADO - DENVER

SATURDAY, MARCH 5TH, 2011

SPONSORS: THE SIAM STUDENT CHAPTERS AT

University of Colorado at Boulder, Colorado Springs and Denver campuses

The Front Range SIAM Student Chapters are sponsoring the 7th 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

We are requesting a \$10 donation per person to help defray the cost of the breakfast and lunch that will be provided at the conference. To register before the day of the conference, please send the name of the conference attendee and their university affiliation along with a check made out to Dr. Lynn Bennethum (also write "UCD SIAM" on the check) to:

Dr. Lynn Bennethum
Dept. of Math. and Stat. Sci.
University of Colorado Denver
1250 14th St. Suite 600
Campus Box 170, PO Box 173364
Denver, CO 80217-3364

Call for Presentations

There will be 20-minute student presentations. 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 Saturday, Feb 26, 2011.

Plenary Speaker

Dr. Edward Ott

Distinguished University Professor
of Electrical Engineering and Physics,
Institute for Research in Electronics and
Applied Physics,
Institute for Systems Research



COLLECTIVE BEHAVIOR IN LARGE SYSTEMS OF COUPLED DYNAMICAL UNITS

An important issue arising in many different situations is the question of how global macroscopic behavior emerges from the coupling of many, typically non-identical, dynamically evolving subsystems. For example, what is the mechanism by which the rhythmic oscillations of a group of 10,000 individual pacemaker cells in the heart organize themselves to beat in phase with each other? Other examples include synchronous flashing of fireflies, oscillation of electrical activity in the brain, circadian rhythm, coupled lasers, and many others. This talk will give an overview on recent progress in this field, focusing on modeling and mathematical analysis.

Contact Information

University of Colorado-Boulder:

Dr. Anne Dougherty, SIAM Faculty Advisor (Undergraduate Chapter), Anne.Dougherty@colorado.edu
Dr. Tom Manteuffel, SIAM Faculty Advisor (Graduate Chapter), tmanteuf@colorado.edu

University of Colorado-Colorado Springs

Dr. Radu Cascaval, SIAM Faculty Advisor, radu@uccs.edu

University of Colorado-Denver

Dr. Lynn Bennethum, SIAM Faculty Advisor, Lynn.Bennethum@ucdenver.edu

Conference Website:

<http://amath.colorado.edu/cmsms/index.php?page=conference>

