### **Registration Information**

We are requesting a \$5 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 the "University of Colorado" (also write "donation to APPM" on the check) to:

Undergraduate SIAM Student Chapter Department of Applied Mathematics 526 UCB University of Colorado at Boulder Boulder, CO 80309-0526

If your university has multiple attendees please feel free to submit one check with the registration fees along with a list of the attendees. We strongly encourage registering before the conference date. Registration will also be available the day of the conference.

### 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: Presentation slots are available for 25 minutes (20 minute talk followed by 5 minutes for questions and set-up of the next speaker).

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

The abstract submission deadline is Tuesday, March 3<sup>rd</sup>, 2009.



5<sup>th</sup> Front Range Applied Mathematics Student Conference

#### University of Colorado at Denver

# SATURDAY MARCH 14<sup>TH</sup>, 2009

SPONSORS: SIAM STUDENT CHAPTERS AT

University of Colorado, Boulder University of Colorado, Colorado Springs University of Colorado, Denver



## About the conference

The Front Range SIAM Student Chapters are sponsoring the 5th 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. 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 14<sup>th</sup>, 2009, between 8:30am and 3pm. Events will include a plenary address, parallel sessions for student presentations (including a special MCM/ICM session) and a poster session.

Schedule:	
8:30-9am	Registration and Breakfast
9-11am	Parallel Sessions
11-11:15am	Break
11:15-12:15pm	Plenary Address
12:15-1pm	Lunch
1-3pm	Parallel Sessions

# **Contact Information**

University of Colorado-Boulder: Dr. Anne Dougherty, SIAM Ugrad. Chapter Faculty Advisor, Anne.Dougherty@colorado.edu

Dr. Tom Manteuffel, SIAM Grad. Chapter Faculty Advisor, tmanteuf@colorado.edu

University of Colorado-Colorado Springs Dr. Gregory Morrow, SIAM Faculty Advisor, gmorrow@uccs.edu

University of Colorado-Denver Dr. Lynn Bennethum, SIAM Faculty Advisor, Lynn.Bennethum@cudenver.edu

Conference Web site: http://amath.colorado.edu/siam/conference/

## Plenary Speaker

#### **Dr. Mark Newman**

Paul Dirac Collegiate Professor of Physics, Center for the Study of Complex Systems, University of Michigan and Santa Fe Institute



#### Epidemics, Erdös Numbers, and the Internet: The structure and function of complex networks

There are networks in almost every part of our lives. Some of them are familiar and obvious: the Internet, the power grid, the road network. Others are less obvious but just as important: the patterns of friendships or acquaintances between people form a social network: the species in an ecosystem join together to form a food web; the workings of the body's cells are dictated by a metabolic network of chemical reactions. As large-scale data on these networks and others have become available in the last few vears, a new science of networks has grown up, drawing on ideas from math, engineering, biology, physics and other fields to shed light on systems ranging from bacteria to the whole of human society. This lecture will look at some new discoveries regarding networks, how these discoveries were made, and what they can tell us about the way the world works.