

## 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 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

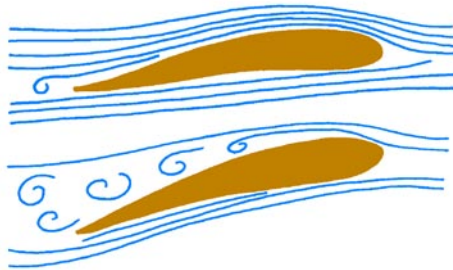
All students (both undergraduate and graduate) are invited to submit abstracts on any research topic in Applied Mathematics. Abstracts should include:

- 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](mailto:FRAMSC.abstracts@gmail.com)

The abstract submission deadline is **Friday, February 26, 2010.**



## 6<sup>th</sup> Front Range Applied Mathematics Student Conference

University of Colorado  
Denver

SATURDAY  
MARCH 6<sup>TH</sup>, 2010

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 6th 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 6<sup>th</sup>, 2010, between 8am 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.

## Contact Information

University of Colorado-Boulder:  
Dr. Anne Dougherty, SIAM Ugrad. Chapter  
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University of Colorado-Colorado Springs  
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University of Colorado-Denver  
Dr. Lynn Bennethum, SIAM Faculty Advisor,  
Lynn.Bennethum@cudenver.edu

## Conference Website

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

## Plenary Speaker

### Dr. Geoffrey Spedding

is Professor of Aerospace and Mechanical Engineering at the University of Southern California. He has a mixed background in both biology and engineering and enjoys working on problems that contain a bit of both. He also works on the detection of submarine tracks in work sponsored by the US Navy.



### The Aerodynamics of Everything

Although we rarely pause to consider it, our life on earth is one where we are surrounded by aerodynamics puzzles and problems. The history of aviation has seen 100 years of spectacular successes in large-scale transport, the Airbus A380 being the recent most notable example. But aerodynamics involves much more than just large and fast transport aircraft, and while all kinds of cases of objects moving through air, or air moving past objects, are easily counted in large number, they are not always so easy to investigate using our standard mathematical tools and examples.

A case in point is the current research in designing and building small-scale flying machines, about the size of a human hand. They can carry a camera and transmit information from inaccessible and/or dangerous places, maneuvering through complex environments.

Unfortunately, we now find that our usual analysis methods break down for the aerodynamics of even simple objects at this size and speed range. Overall, the specification sounds a lot like that of a bird, and perhaps we can learn from nature, where such problems have apparently been solved, at least to the satisfaction of the flyers themselves. This talk encourages basic questions about all flying things, and answers some of them.