Society for Industrial and Applied Mathematics

6th Front Range Applied Mathematics Student Conference

University of Colorado - Denver

Saturday, March 6th, 2010

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 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. 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 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

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 Friday, Feb 26, 2010.*

Plenary Speaker

Dr. Geoffrey Spedding
Professor of Aerospace
and Mechanical Engineering
University of Southern California

"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.

Contact Information

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Conference Web site: http://amath.colorado.edu/index.php?page=conference