

Students!

Activities just for you at the 2011 SIAM Conference on Computational Science and Engineering February 28–March 4 • Reno, Nevada



Student chapter representatives and SIAM leaders met over breakfast as just one of the Student Days activities at AN10 in Pittsburgh.



Representatives of SIAM student chapters from all over the world met at AN10 in Pittsburgh.

Student Days at the 2011 SIAM Conference on Computational Science and Engineering (CSE11) are *for* students and *about* students. Organizers have got it all covered this year, with activities and sessions where students can meet with both peers and professionals in their field, find out about hot areas for jobs and research, and network with members of SIAM student chapters from all over the world.

Student Days normally take place during the SIAM Annual Meeting. However, it is SIAM's practice not to hold an annual meeting every fourth year when the International Congress on Industrial and Applied Mathematics (ICIAM) meets so that SIAM members can participate in and support that meeting instead. Therefore, 2011 Student Days are being held in conjunction with CSE11. SIAM is co-organizing ICIAM 2011, which will take place July 18–22, 2011, in Vancouver, BC, Canada.

GOALS

Organized by the SIAM Education Committee (Chaired by **Peter Turner**, Clarkson University), Student Days are designed to encourage student participation in SIAM, to help students learn more about applied mathematics and computational science as both fields of study and as careers, and to provide a forum for emerging mathematicians to learn about their field from the professionals who know the answers. Organizers also hope to encourage those in the learning community to establish new student chapters of SIAM and to promote interaction between students and SIAM leadership.

EVENTS and HAPPENINGS

Student Days sessions include presentations by student chapter representatives and undergraduate research projects in CS&E. In addition, students can attend plenary sessions from the 2011 SIAM Conference on Computational Science and Engineering.

MEETING WITH LEADERS and INFLUENCING SIAM (by invitation only)

Student Days 2011 will also feature the Student Chapter Meeting with SIAM leadership. This meeting gives faculty advisors and student chapter representatives the opportunity to meet with key decision makers to discuss ideas for improving student chapters and ways that SIAM can meet the needs of current and future student members all over the world. Each chapter selects one student to attend the event as its chapter representative.



REGISTER

www.siam.org/meetings/cse11/reginfo.php

Students can register for the 2011 SIAM Conference on Computational Science & Engineering (CSE11) for a special reduced rate: \$110 before January 31 or \$125 onsite. Student Days are included.

RESERVATIONS

www.siam.org/meetings/cse11/hotel.php

If you plan to attend Student Days or the 2011 SIAM Conference on Computational Science and Engineering, reserve your room at the Grand Sierra Resort and Casino. The deadline to make hotel reservations is February 7, 2011. Since rooms in the block often sell out prior to the deadline, we recommend that you make your reservations early. If you are interested in finding a roommate, there is a form on the Hotel Information page.

SCHEDULE

www.siam.org/meetings/cse11/students.php#studentdays

The session on undergraduate research projects in CS&E will include:

Solving a NIST Suite of PDE Benchmark Problems with Adaptive Low-Order FEM and hp-FEM

Erick Santiago, *University of Nevada, Reno*

Computational Islet Simulations of Pancreatic Beta Cells

Andrew Li, *University of Maryland, Baltimore County*

Developing Computational Tools to Predict Material Behavior

Stephanie Tsuei, *California Institute of Technology*

The Physics and Engineering of Skateboarding's MegaRamp

Emily Stefano, *Clarkson University*

A generalized Monte Carlo Loop Algorithm for Frustrated Ising Models

Yuan Wang, *University of Waterloo*

Multimaterial Multiphase Deflagration-to-Detonation Model in PetaScale Computational Framework

Joseph Peterson, *University of Utah*

Development and Analysis of Computer Simulations of Neuron-Astrocyte Networks to Better Understand the Role of Astrocytes

Tahirali H. Motiwala, *Wofford College*

Optimization for Modeling Brain Activity During Threatening Scenarios

Brian C. Leventhal, *Clarkson University*

ToppGene Computational Analysis: Identifying Potential Genes Necessary for Acute Myeloid Leukemia Viability

Zach Beaver, *Wofford College*

Understanding How Errors in Model Parameters Impact the Simulation of Subsurface Temperature Profiles

Xiaoqing (Ruby) Fu, *Clarkson University*



Members of the University of Pittsburgh Chapter of SIAM helped with organization and promotion at the 2010 SIAM Annual Meeting in Pittsburgh.

The session by representatives of SIAM student chapters will include:

Spectral Counting Functions of Atomic Measures

Kate Ellis, *California State University, Stanislaus*

Applications of Robust Control to Spacecraft Stability

Jacob Bouricius, *Harvey Mudd College*

Simulating Stochastic Inertial Manifolds by a Backward-Forward Approach

Xingye Kan, *Illinois Institute of Technology*

A Diffuse Interface Model of Multicomponent Vesicle Adhesion and Fusion

Yanxiang Zhao, *Penn State University*

Integral Tau Leap Method for Stochastic Chemical Systems

Yushu Yang, *University of Maryland, Baltimore County*

Aspects on Robust Shape Optimization in CFD

Claudia Schillings, *University of Trier, Germany*

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Art is adapted from a paper by Roger P. Pawłowski and John Shadid, Sandia National Laboratories, and Joseph P. Simonis and Homer F. Walker, Department of Mathematical Sciences, Worcester Polytechnic Institute.