
Inside the AMS

AMS Department Chairs Workshop

This annual one-day workshop for chairs and leaders of departments of mathematical sciences will be held a day before the start of the Joint Mathematics Meetings in Washington, DC, on Sunday, January 4, 2009, from 8:00 a.m. to 6:30 p.m. The workshop format is intended to stimulate discussion among attending chairs and workshop leaders. Sharing ideas and experiences with peers provides a form of department chair therapy, creating an environment that enables attending chairs to address departmental matters from new perspectives.

Past workshop sessions have focused on a range of issues facing departments today, including personnel issues (staff and faculty), long-range planning, hiring, promotion and tenure, budget management, assessments, outreach, stewardship, junior faculty development, communication, and departmental leadership.

There is a registration fee for the workshop, which is in addition to and separate from the Joint Meetings registration. An invitation to attend the workshop will be sent to department chairs this fall. Information will also be posted on the AMS website. For further information, please contact the AMS Washington Office at 202-588-1100 or amsdc@ams.org.

—AMS Washington Office

AMS Sponsors Exhibition on Mathematics and Cardiology

The AMS sponsored an exhibit entitled “Mathematics and Cardiology: Partners for the Future” presented by Suncica Canic of the University of Houston at the 14th annual Coalition for National Science Funding (CNSF) Exhibition held June 25, 2008, on Capitol Hill in Washington, DC.

Canic showed how sophisticated mathematics can be used to improve design of vascular prostheses, called stents, and stent-grafts used in nonsurgical repair of aortic abdominal aneurysm (AAA) and coronary artery disease (CAD). By studying fluid-structure interaction between blood flow and motion of vascular walls, researchers from the Department of Mathematics at the University of Houston, together with cardiologists from the Texas Heart Institute in Houston, have been able to show that certain stents and stent-grafts used in AAA

repair have suboptimal performance. This has led to the abandonment of the use of bare Wallstent in AAA repair and the design of a new stent-graft with improved blood flow characteristics.

The main ideas in this work came from a mathematical proof of the existence of a solution to the underlying fluid-structure interaction problem, which led to the design of a sophisticated computational fluid-structure interaction algorithm that was used in modeling and simulation of the performance of vascular prostheses implanted in the human body.

The research presented was supported by the National Science Foundation (NSF), the National Institutes of Health, the Texas Higher Education Board, and the Texas Heart Institute.

The CNSF Exhibition is an annual event that showcases the crucial role the NSF plays in meeting the nation’s research and education needs. It highlights research made possible by the NSF through exhibits displaying a wide range of scientific research and education projects. The exhibition provides an opportunity for university researchers and educators to describe their work to policymakers on Capitol Hill.

CNSF is an alliance of over 110 scientific and professional societies and universities that are united by a concern for the future vitality of the national science, mathematics, and engineering enterprise. This coalition, chaired by Samuel M. Rankin III, associate executive director of the AMS and director of its Washington Office, works to increase the federal investment in the NSF.

Previous AMS exhibits at CNSF exhibitions include:

- *Computational Models for Cardiovascular Disease Assessment and Surgery Design*, presented by Dalin Tang, Worcester Polytechnic Institute
- *Disease Prediction and Treatment Design*, presented by Eva K. Lee, Georgia Institute of Technology
- *Mathematics for Advanced Composites Technology*, presented by Robert Lipton, Louisiana State University
- *Mathematical Modeling of Swimming Organisms*, presented by Lisa Fauci and Nick Cogan, Tulane University
- *Mathematics of Sea Ice*, presented by Kenneth M. Golden, University of Utah
- *Liquid Films and Image Inpainting*, presented by Andrea Bertozzi, Duke University
- *Undergraduate Research Opportunities Made Possible by NSF*, presented by John Bush, Massachusetts Institute of Technology
- *Computer Simulation of Blood Flow in the Heart*, presented by Charles S. Peskin, Courant Institute of Mathematical Sciences, New York University

- *Mathematical Foundations of Image Analysis and Computational Vision*, presented by Don McClure, Brown University

- *Ergodic Theory*, presented by Doug Lind, University of Washington

- *The Energy of Knots*, presented with JPBM by Jonathan K. Simon, University of Iowa, and Gregory R. Buck, Saint Anselm College

For information on the annual CNSF exhibition and reception, please visit the CNSF website, <http://www.cnsf.org>.

—Anita Benjamin, AMS Washington Office

- Funding and Fellowships (for individuals and departments)

See <http://www.ams.org/outreach>.

—Annette Emerson and Mike Breen, AMS Public Awareness Officers, paoffice@ams.org

Deaths of AMS Members

C. ARNE ARENBERG, retired, from Evanston, IL, died on January 27, 2003. Born on September 3, 1917, he was a member of the Society for 35 years.

PATRICIA M. BLITCH, professor, Lander University, died in 2008. Born on December 20, 1951, she was a member of the Society for 30 years.

DAN BUTNARIU, professor, University of Haifa, died on July 4, 2008. Born on February 1, 1951, he was a member of the Society for 23 years.

LEONARDO D'ATTORRE, from Thousand Oaks, CA, died on October 8, 2006. Born on February 2, 1920, he was a member of the Society for 47 years.

EDWIN G. EIGEL, from Fairfield, CT, died on April 7, 2008. Born on June 4, 1932, he was a member of the Society for 52 years.

JAMES K. FEIBLEMAN, professor emeritus, Tulane University, died on September 14, 1987. Born on July 13, 1904, he was a member of the Society for 19 years.

WILLIAM FORMAN, professor, Brooklyn College, CUNY, died on July 24, 1998. Born on October 16, 1914, he was a member of the Society for 49 years.

DETLEF GROMOLL, professor, SUNY at Stony Brook, died on May 31, 2008. Born on May 13, 1938, he was a member of the Society for 41 years.

NARAIN D. GUPTA, professor, University of Manitoba, died on April 11, 2008. Born on July 27, 1936, he was a member of the Society for 40 years.

VADIM KOMKOV, retired, Texas Tech University, died on May 14, 2008. Born on August 18, 1919, he was a member of the Society for 42 years.

J. C. MARK, retired staff member, Los Alamos National Laboratory, died on March 2, 1997. Born on July 6, 1913, he was a member of the Society for 50 years.

DONALD L. PILLING, from Vienna, VA, died on May 26, 2008. Born on June 4, 1943, he was a member of the Society for 37 years.

ELDON E. POSEY, professor emeritus, University of North Carolina, Greensboro, died on May 7, 2008. Born on January 25, 1921, he was a member of the Society for 58 years.

DANIEL RIDER, professor, University of Wisconsin, Madison, died on July 11, 2008. Born on July 23, 1938, he was a member of the Society for 45 years.

EVA A. WINTER, from Lenexa, KS, died on June 13, 2006. Born on January 28, 1920, she was a member of the Society for 63 years.

KRZYSZTOF P. WOJCIECHOWSKI, professor, Indiana University-Purdue University, Indianapolis, died on June 28, 2008. Born on October 15, 1953, he was a member of the Society for 21 years.



From the AMS Public Awareness Office

Fibonacci Numbers in Nature poster. Download the PDF file of a small version of this poster (printable on 8.5 by 11 inches or A4-size paper), or request a copy on the AMS Printable Posters

webpage at <http://www.ams.org/ams/ams-printable-posters.html>.

The Profession. The AMS website features a collection of resources about and for the profession. Visitors can easily find a wealth of information, including:

- Data on the Profession (annual surveys from 1957 to the present and forms to submit data)
- Information for Department Leaders (workshops, awards, culture statements)
- Mathematics People (directories, biographical sources, “What do mathematicians do?”)
- Mathematics Education (a selection of articles that have appeared in *Notices* and “Teaching Tips”)
- For Students (resources for high school, undergraduate, and graduate students)
- AMS Outreach Projects (Mathematics Programs That Make a Difference, AMS Award for Exemplary Program or Achievement in a Mathematics Department, Conferences on Promoting Undergraduate Research in Mathematics, Arnold Ross Lecture Series, AMS Book and Journal Donation Program, *Towards Excellence*)