SIAM Unwrapped

News & announcements for the SIAM membership community

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December 2012

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Dear SIAM members,

As the end of the year approaches, we would like to remind you to not only renew your membership, but also of all the great benefits SIAM has to offer. In this issue, you will find a link to a 5-minute video where SIAM members talk about all the reasons for being part of this great community. I hope you can watch and share it.

The SIAM elections are now over and the votes are in! We are happy to welcome new officers. Please read details on the new Board and Council below.

Here's wishing you a great end of the year!

Regards,

Karthika Muthukumaraswamy

Editor

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::: SIAM HQ UPDATE :::

SIAM welcomes new Board and Council

The SIAM community has elected the following members to serve on the SIAM Board of Trustees and the SIAM Council, effective January 1, 2013 for a term of three years.

Board of Trustees
Lisa Fauci* - Tulane University
George Papanicolaou - Stanford University
Fadil Santosa - University of Minnesota

Council Members
L. Craig Evans* - University of California, Berkeley
Tim Davis* - University of Florida
Carol Woodward* - Lawrence Livermore National Laboratory
Andreas Griewank - Humboldt-Universität of Berlin

[Asterisks indicate incumbents whose terms will continue.]

 SIAM wishes to thank all of the candidates for their participation. More details about the elected officers, their SIAM activities, and research interests are available at:

http://connect.siam.org/?p=2800

Why join SIAM?

Most SIAM members can recount the reasons they choose to be part of the SIAM community: scientific discussion and collaboration; exciting conferences; informative books and journals; professional development; outreach to budding scientists and mathematicians; and advancement of the value of math. At the Annual Meeting this year, some members spoke on camera about reasons for their continued support of SIAM. You can watch the 5-minute clip on our Youtube channel:

http://youtu.be/ydE_ilhvjmM

This is a great video to pass around to anyone that you want to introduce to the benefits of SIAM. And be sure to renew your membership for next year if you haven't already!

Refer your colleagues to SIAM

You can, of course, refer colleagues and friends to join SIAM anytime, but if you do so within the next three weeks, you will have a chance to win an iPad! Our current Member Get a Member effort ends December 31. If an individual joins SIAM on or before this date and enters your name as the 'referring member,' you and the new member will be entered into a drawing for a chance to win an iPad, an additional year of SIAM membership, a free SIAM conference registration to a meeting of your choice, or a free SIAM book, also of your choice.

Do you know other mathematicians or scientists who could benefit from the value of SIAM? Encourage them to join today. And perhaps, send them the aforementioned video link!

::: PUBLIC AWARENESS :::

Meeting of the SIAM Committee on Science Policy
The SIAM Committee on Science Policy met in Washington, DC, on December 3 and 4, 2012 to discuss issues related to science policy with various groups from funding agencies. Among the items discussed was the merger of the NSF's Office of Cyberinfrastructure (OCI) into the Directorate for Computer & Information Science & Engineering (CISE). The Committee heard from Farnam Jahanian, Assistant Director of CISE, and OCI Director Alan Blatecky on the issue. The Committee also heard from several members of the DOE's Advanced Scientific Computing Research Program (ASCR), including Bill Harrod, Karen Pao, Sandy Landsburg, and Steve Lee. Discussions covered topics ranging from the Applied Math Program within ASCR to exascale computing initiatives as well as other recent programs within the Office of Science related to applied mathematics and computing. Sastry Pantula, Director of the NSF's Mathematics Division, also spoke about recent and new programs there. Subgroups of the Committee made visits to the Office of Science and Technology Policy (OSTP), the office of the President's Science Advisory Committee (PSAC), and to the Office of Management and Budget (OMB). More details will be posted on the SIAM website when available.

SIAM nuggets tackle biodiversity and water contamination

Of all the exciting research that is published in SIAM journals, some is selected to attest to the real-world applications of math and computational science, and to highlight its value and significance to the public. Such articles are boiled down to a popular-science level and published as SIAM nuggets, making current research in the field more accessible to a general audience. The latest two nuggets, published last month, talk about two very different subjects. "Persistence or extinction: Through a mathematical lens" uses math modeling to analyze the impact of disease, animal migrations and phenomena specific to low-density populations in maintaining biodiversity. "Math detects contamination in water

[distribution networks](#)" explains how contaminants that may be introduced accidentally into a water distribution system can be curtailed by considering contaminant identification as an optimal control problem within a networked system.

You can read all SIAM nuggets here:

http://connect.siam.org/?cat=13

Source articles for each nugget are linked from the nugget page, and are available for free access for 90 days after publication of the nugget. Are you conducting research that might make for an interesting SIAM nugget? If so, please e-mail pao@siam.org with a brief overview of your work.

::: STUDENT NEWS & NOTES :::

Apply to the 2013 Gene Golub SIAM Summer School

Graduate students are invited to apply to the 2013 Gene Golub SIAM Summer School (G2S3) on "Matrix Functions and Matrix Equations," to be held at Fudan University, Shanghai, China, July 22 - August 2, 2013. The school will be composed of three mini-courses:

- Functions of matrices and exponential integrators
- Matrix equations and model reduction
- High performance linear solvers and eigenvalue computations

More information about the courses and how to apply can be found at:

http://g2s3.cs.ucdavis.edu/index.html

Letters of intent for G2S3 2014

SIAM seeks letters of intent for proposals of topics for the Gene Golub SIAM Summer School (G2S3) in 2014. Courses in the proposed two-week school, which will include lectures and exercises/project sessions, are expected to complement regular university curricula and expose students to a topic of current relevance. The deadline for letters of intent is January 31, 2013. The school will be held in the period between June and August 2014 without conflicting with travel plans to the SIAM Annual Meeting. Those interested can find more information at:

http://www.siam.org/students/g2s3/

::: PUBLISHING NEWS AND NOTES :::

New and improved SIAM Books

Applications to Regular and Bang-Bang Control: Second-Order Necessary and Sufficient Optimality Conditions in Calculus of Variations and Optimal Control

Nikolai P. Osmolovskii and Helmut Maurer

This book is devoted to the theory and applications of second-order necessary and sufficient optimality conditions in the calculus of variations and optimal control. The authors develop theory for a control problem with ordinary differential equations subject to boundary conditions of equality and inequality type and for mixed state-control constraints of equality type. The book is distinctive in that necessary and sufficient conditions are given in the form of no-gap conditions; the theory covers broken extremals where the control has finitely many points of discontinuity; and a number of numerical examples in various application areas are fully solved.

Additional information: http://www.ec-securehost.com/SIAM/DC24.html

Approximation Theory and Approximation Practice
Lloyd N. Trefethen

Approximation Theory and Approximation Practice is a textbook on classical polynomial and rational approximation theory for the twenty-first century. It is aimed at advanced undergraduates and graduate students across all of applied mathematics.

Additional information: http://www.ec-securehost.com/SIAM/OT128.html

2012 / viii + 305 pages / Softcover / ISBN 978-1-611972-39-9
List Price $49.00 / SIAM Member Price $34.30 / **Order Code OT128**

::: UPDATES ON CONFERENCES & PRIZES :::

Conferences accepting registrations and submissions

SIAM Conference on Computational Science & Engineering (CSE13), February 25-March 1, 2013, Boston, Massachusetts, USA
Pre-registration Deadline: January 28, 2013
https://www.siam.org/meetings/cse13/regform.php

SIAM Conference on Mathematical Aspects of Materials Science (MS13), June 9-12, 2013, Philadelphia, Pennsylvania, USA
Submission Deadlines:
Poster Submissions and abstracts for minisymposium speakers: January 15, 2013 (*Contributed Lectures are not being solicited for MS13*.)
http://www.siam.org/meetings/ms13/submissions.php

[SIAM Conference on the Mathematical and Computational Issues in the Geosciences (GS13)](http://www.siam.org/meetings/gs13/submissions.php), June 17-20, 2013, University of Padova, Italy
Submission Deadlines:
Abstracts for contributed and minisymposium speakers: December 20, 2012
http://www.siam.org/meetings/gs13/submissions.php

[SIAM Conference on Control and Its Applications (CT13)](http://www.siam.org/meetings/ct13/submissions.php), July 8-10, 2013, San Diego, California, USA
Submission Deadlines:
Minisymposium proposals: January 7, 2013
Abstracts for contributed and minisymposium speakers: January 28, 2013:
Full Paper Submission (Optional) for Consideration in Proceedings: January 28, 2013
For full information on how to be considered for the proceeding for CT13, be sure to consult the submissions page:
http://www.siam.org/meetings/ct13/submissions.php

[2013 SIAM Annual Meeting (AN13)](http://www.siam.org/meetings/an13/submissions.php) , July 8-12, 2013, San Diego, California, USA
Submission Deadlines:
Minisymposium proposals: January 7, 2013
Abstracts for contributed and minisymposium speakers: January 28, 2013
http://www.siam.org/meetings/an13/submissions.php

[SIAM Conference on Applied Algebraic Geometry (AG13)](http://www.siam.org/meetings/ag13/submissions.php) , August 1-4, 2013, Fort Collins, Colorado, USA
Submission Deadlines:
Minisymposium proposals: December 17, 2012
Abstracts for contributed and minisymposium speakers: February 25, 2013
http://www.siam.org/meetings/ag13/submissions.php

Open calls for prize nominations
For the following prizes, nominations are due February 15, 2013:

SIAG/CST Best SICON Paper Prize

SIAM Student Paper Prize

Find the complete list of calls for nominations at:

http://www.siam.org/prizes/nominations.php

If your email does not support the hyperlink features, please copy any of the above URLs and paste them into your Internet browser.

Questions/comments/suggestions? Send them to karthika@siam.org.

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