

SIAM Unwrapped

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October 2011

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SIAM Unwrapped is a free electronic newsletter distributed monthly to SIAM members. It provides links to industry news, membership information, meetings, publications, and other items of interest.

Dear SIAM members,

We recognize how important it is for students and those in their early careers to have access to the extensive professional network and resources that SIAM has to offer, which is why we provide opportunities for free student memberships. To help deserving students take advantage of this, [nominate](#) a student for free membership in 2012. Nonstudent members can nominate up to two students per year.

If you have been a paying member of SIAM for at least three years and are currently unemployed, you are eligible to receive a special [discounted membership](#) rate for up to one year. Contact [Member Services](#) for more information.

Regards,

Karthika Muthukumaraswamy
Editor

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::: SIAM HQ UPDATE :::

Still time to vote in the SIAM Elections!

Voter turnout has been impressive during this year's Officers, Board, and Council election. Unique voting credentials and a link were e-mailed to each member by Votenet in September. If you haven't already cast your ballot, please refer to the Votenet e-mail sent on September 1 (from: support@votenet.com). The election closes on November 1, 2011. Information about the election and candidate bios are available on the SIAM website at:

http://www.siam.org/election/election_info.php

Final opportunity to nominate a 2012 Fellow

This is your last chance to help confer upon a deserving colleague or friend the prestigious honor of being a SIAM Fellow in 2012! Each year, SIAM selects up to 34 academics and professionals for this recognition based on outstanding contributions to applied mathematics and related fields in terms of furthering research, serving the larger community, and promoting the relevance of the subject among the general public. Members can nominate up to two colleagues for distinguished work in the fields of applied mathematics and computational science. The deadline for nominations to the 2012 Class of SIAM Fellows is November 7, 2011.

Last call for prize nominations!

SIAM offers a number of major awards. Several of these are currently open for nomination, with deadlines fast approaching.

The **George Polya Prize** (for a notable application of combinatorial theory); the **W.T. and Idalia Reid Prize** (for research in, or other contributions to, the broadly defined areas of differential equations and control theory); the **Richard DiPrima Prize** (awarded to a junior scientist who has done outstanding research in applied mathematics based on an outstanding doctoral dissertation); and **The John von Neumann Lecture** (for distinguished contributions to applied mathematical sciences and their effective communication to the community), for which SIAM is seeking suggestions. Nominations are being accepted until October 15, 2011.

Several SIAGs will also award prizes at their conferences in 2012. This is a last call for nominations to the SIAG/NWCS Martin Kruskal Lecture, SIAG/DM Denes Konig Prize, SIAG/FME Junior Scientist Prize, and SIAG/LA Prize, which are also due October 15, 2011.

Details may be found at <http://www.siam.org/prizes/nominations.php> where open calls to other SIAM prizes are listed as well. Questions may be directed to littleton@siam.org.

Renew your membership

If your SIAM membership expires December 31, 2011, you will receive an e-mail from "renewals@siam.org" in October about renewing your membership for 2012. From that e-mail, you can link directly to your SIAM membership account and either pay your dues online or print out a renewal invoice to mail or fax your payment. You can reach the same information by logging in at my.siam.org/cust_serv, and clicking on "renew membership". Free student members, don't forget that you also need to renew your membership in order to continue receiving benefits in 2012. If you have any questions about renewing, or if you want to change your member type or term, contact membership@siam.org.

Reciprocal memberships with AustMS and IMA

SIAM recently signed reciprocity agreements with the Australian Mathematical Society (AustMS) and the Institute of Mathematics and its Applications (IMA). Reciprocal members typically receive a 20-30% discount off the regular member dues rate in addition to all the benefits of regular membership.

For more information on these agreements as well as a complete list of reciprocal societies, please visit:

<http://www.siam.org/membership/individual/reciprocal.php>

Recruit a member & help SIAM grow

We know that you, as SIAM members, rely on SIAM to provide you with a community of researchers to interact and network with, to enable discussion, and enhance research in this interdisciplinary field. We, in turn, rely on you to help our community grow. If you have a friend or colleague who has yet to discover SIAM, invite them to become a member now. The first 100 members to refer a colleague who joins SIAM will receive an € SIAM t-shirt and both you and your referred colleague will be entered into a drawing for our [Member-Get-a-Member](#) contest. Winners will receive an additional year of SIAM membership, a SIAM conference registration for a meeting of your choice, and a SIAM book of your choice from our list of recent titles. In addition, anyone who joins SIAM for 2012 gets the rest of 2011 for free. Go ahead, refer someone now!

For full details, download the MGAM flyer:

http://www.siam.org/membership/pdf/mgam_flyer.pdf

::: **STUDENT NEWS & NOTES** :::

Moody's Mega Math Challenge continues to grow

What started as a city-wide contest in the New York City Metropolitan area in 2006 now spans 29 states in the Eastern United States. A free, Internet-based, applied math contest for high-school students sponsored by The Moody's Foundation and organized by SIAM, Moody's Mega Math Challenge is a pipeline initiative for SIAM, encouraging students to use mathematics as a valuable tool for solving contemporary problems. Now in its seventh year, the contest will award \$115,000 in 2012 to winning students in pursuit of higher education. In its inaugural year, close to 150 teams/572 students participated in the Challenge. Last year's contest saw participation from nearly 600 teams/2,582 students from 18 states along the U.S. East Coast, of which the top 43 teams took away \$100,000 in prizes. By asking students to solve complex, real-world issues with the power of mathematics, the Challenge is designed to motivate student interest in pursuing careers in applied math, economics and finance. For instance, this year's problem focused on estimating the long-term impact of drought conditions in the American Southwest, and past years have asked students to develop math models to improve the Census count, estimate the effect of the Stimulus Act on the U.S. economy, or examine the impact of replacing gasoline with ethanol. We look forward to more expansion in the coming years, and anticipate that the Challenge will be national by 2016. Subsequent international expansion is being explored.

For more information on the contest, please visit:

<http://m3challenge.siam.org/>

Follow SIAM Jobs on Facebook & Twitter

The [SIAM Job Board](#) is a great resource to find open positions in the field of applied math and computational science, in addition to numerous resources for professional development for both traditional and off-the-beaten paths in this specialized niche. Now there are a couple more places where you can keep up with newly-posted opportunities on the Job Board.

Click on the "Careers" tab on the left sidebar on [SIAM's Facebook page](#) to find the latest postings:

http://www.facebook.com/SIAMconnect?sk=app_106877302704651

You can also follow the SIAM Job Board on Twitter:

<http://twitter.com/SIAMJobBoard>

Chapters make math events fun & exciting

During the 2010-2011 academic year, SIAM provided over \$32,000 in funds to 66 SIAM student chapters for activities and events. As always, chapters around the world used the funds innovatively and creatively: inviting lectures from researchers and professionals from academia and industry, organizing conferences, symposia and workshops, and offering various opportunities for professional development. From unraveling complex systems and analyzing the math behind green buildings to numerically modeling Yoda of *Star Wars* fame, they did it all! Read about some of the exciting chapter activities here:

<http://connect.siam.org/?p=1253>

::: PUBLISHING NEWS AND NOTES :::

New SIAM Books

Alternating Projection Methods

René Escalante – Universidad Simón Bolívar, Caracas, Venezuela

Marcos Raydan – Universidad Simón Bolívar, Caracas, Venezuela

This book describes and analyzes all available alternating projection methods for solving the general problem of finding a point in the intersection of several given sets belonging to a Hilbert space. For each method the authors describe and analyze convergence, speed of convergence, acceleration techniques, stopping criteria, and applications. Different types of algorithms and applications are studied for subspaces, linear varieties, and general convex sets. The authors also unify these algorithms into a common theoretical framework. The book can be used as a textbook for advanced undergraduate or first-year graduate students. Because of its comprehensive nature, it can also be used as a tutorial or a reference by mathematicians and non-mathematicians from many fields.

Additional information: <http://www.ec-securehost.com/SIAM/FA08.html>

2011 / x + 129 pages / Softcover / ISBN 978-1-611971-93-4

List Price \$60.00 / SIAM Member Price \$42.00 / Order Code FA08

The Mathematics of Diffusion

Wei-Ming Ni – East China Normal University and University of Minnesota

Diffusion has been used extensively in many scientific disciplines to model a wide variety of phenomena. *The Mathematics of Diffusion* focuses on the qualitative properties of solutions to nonlinear elliptic and parabolic equations and systems in connection with domain geometry, various boundary conditions, the mechanism of different diffusion rates, and the interaction between diffusion and spatial heterogeneity.

Additional information: <http://www.ec-securehost.com/SIAM/CB82.html>

2011 / xii + 108 pages / Softcover / ISBN 978-1-611971-96-5

List Price \$60.00 / SIAM Member Price \$42.00 / **Order Code CB82**

Elliptic Problems in Nonsmooth Domains

Pierre Grisvard

This classic text focuses on elliptic boundary value problems in domains with nonsmooth boundaries and on problems with mixed boundary conditions. Its contents are essential for an understanding of the behavior of numerical methods for partial differential equations (PDEs) on two-dimensional domains with corners.

Additional information: <http://www.ec-securehost.com/SIAM/CL69.html>

2011 / xiv + 410 / Softcover / ISBN 978-1-611972-02-3

List Price \$99.00 / SIAM Member Price \$69.30 / **Order Code CL69**

::: **UPDATES ON CONFERENCES & PRIZES** :::

Conferences accepting registrations and submissions

[**SIAM Conference on Analysis of Partial Differential Equations \(PD11\)**](#), November 14—17, 2011, San Diego, California, USA

There is still time to register for PD11. Registration closes Monday, October 17, 2011, at 4 p.m. EDT. Online registration is at:

<https://www.siam.org/meetings/pd11/regform.php>

[**SIAM Conference on Parallel Processing for Scientific Computing \(PP12\)**](#), February 15—17, 2012, Savannah, Georgia, USA

The poster submission deadline for PP12 has been extended to January 4, 2012. Visit the submissions page for details:

<http://www.siam.org/meetings/pp12/submissions.php>

[**SIAM Conference on Uncertainty Quantification \(UQ12\)**](#), April 2—4, 2012, Raleigh, North Carolina, USA

Minisymposium proposals and abstracts for contributed and minisymposium speakers are due November 8, 2011.

For more details, visit the submissions page:

<http://www.siam.org/meetings/uq12/submissions.php>

[**SIAM Conference on Imaging Science \(IS12\)**](#), May 20—22, 2012, Philadelphia, Pennsylvania, USA

The deadline for minisymposium proposals is October 24, 2011. Abstracts for contributed and minisymposium speakers are due by November 21, 2011.

Go to the submissions page for more information:

<http://www.siam.org/meetings/is12/submissions.php>

[SIAM Conference on Nonlinear Waves and Coherent Structures \(NW12\)](#), June 13—16, 2012,
Seattle, Washington, USA

Minisymposium proposals are due November 14, 2011. The deadline for abstracts for contributed and minisymposium speakers is December 12, 2011.

Visit the submissions page for details:

<http://www.siam.org/meetings/nw12/submissions.php>

Open calls for prize nominations

Nominations for major SIAM & SIAG prizes due October 15, 2011

Richard C. DiPrima Prize // George Polya Prize // W. T. and Idalia Reid Prize // Lagrange Prize in Continuous Optimization // The John von Neumann Lecture // Martin Kruskal Lecture (SIAG/NWCS) // Denes Konig Prize (SIAG/DM) // SIAG/LA Prize // SIAG/FME Junior Scientist Prize

Nominations for major SIAM & SIAG prizes due November 2011

AWM-SIAM Sonia Kovalevsky Lecture -- due November 1, 2011

George B. Dantzig Prize -- due November 15, 2011

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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