

SIAM Unwrapped

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March 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,

In keeping with our goal of promoting applied mathematics to the larger community, SIAM consistently strives to enhance current projects and initiate new ones. To that end, we are pleased to announce the success of our high school applied math contest, which took place last weekend with thousands of participants. We would also like to inform you about a new SIAM outreach effort that aims to promote applied mathematics to the general public by creating research videos for news broadcast stations across the world. Read more about these efforts below.

As a SIAM member, you probably already know of the benefits of membership, but our new membership flyer will update you with the latest information, highlighting several new ways for you to get more involved with SIAM.

You can download the flyer here:

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

Regards,

Karthika Muthukumaraswamy

Editor

Contents:

SIAM HQ UPDATE

- Final opportunity to win an MGAM prize!
- 2011 Class of Fellows to be announced
- Introducing DBIS

STUDENT NEWS & NOTES

- 2,585 participate in M³ Challenge 2011
- SIAM Student Chapters discuss events, outreach

PUBLISHING NEWS AND NOTES

- SIAM Journals moving to universal data format

ICIAM UPDATES

- Ingrid Daubechies to deliver The John von Neumann Lecture

- Exhibit at ICIAM 2011

CONFERENCE UPDATES

- Conferences accepting registrations and submissions

Final opportunity to win an MGAM prize!

SIAM's [Member Get a Member program](#) ends March 31. If you haven't referred a colleague yet, but know one deserving of all the perks SIAM has to offer, now is the time! In addition to providing them an opportunity to experience member benefits, you will be giving them—and yourself—a chance to win exciting prizes. Those interested can [join online](#) or download and mail an [application](#).

For complete details on how to participate and on criteria to win prizes, please visit:

<http://www.siam.org/membership/mgam.php>

All member applications are due at the SIAM office by March 31, 2011. Drawings will take place on April 7.

2011 Class of Fellows to be announced

In order to recognize and promote research work in the fields of applied mathematics and computational science, SIAM designates as Fellows of the Society members who have made outstanding contributions to the field. Each year, the Fellows Selection Committee reviews nominations submitted by SIAM members and makes selections based on the nominees' professional accomplishments and references. The selection process is now being wrapped up, and SIAM's 2011 Class of Fellows will be announced on March 31. Nominations are being accepted for the 2012 Class of Fellows. Please go to the link below for details:

<http://www.siam.org/prizes/fellows/nomination.php>

Introducing DBIS

Do you have an interesting research story to tell? Is your group involved in a project that could enlighten a broad range of viewers on the pertinence of mathematics and educate them on how it is being used to understand and solve issues of daily life? If so, please let us know! If selected, you and your group may be spotlighted on television screens worldwide! SIAM has launched a partnership with the [American Institute of Physics](#)¹ *Discoveries and Breakthroughs Inside Science* (DBIS) program, which creates short video segments showcasing the latest mathematical research and applications for distribution to local television stations across the US and around the world.

Please send us your pitches in the form of short summaries (with links to published research, if available). You can view examples of videos previously created on the DBIS math page:

<http://www.aip.org/dbis/math/>

::: STUDENT NEWS & NOTES :::

2,585 participate in M³ Challenge 2011

On March 5-6, 2011, almost 600 teams, comprised of 2,585 high-school students from the US East Coast participated in Moody's Mega Math Challenge 2011, which is organized annually by SIAM and sponsored by [The Moody's Foundation](#). The idea behind the contest, which gives students 14 hours to solve an open-ended applied math problem based on a genuine issue, is to pique student interest in mathematics, and inspire them to choose math-related careers. This year's problem focused on the discrepancies in water supply and demand caused by long-term drought. Students were asked to determine the hydrologic and economic impact of water shortages in the Colorado River Basin in the American Southwest, which has been plagued by drought for over a decade. Using mathematical modeling, participants analyzed potential implications to the region over the next five-year period, taking into account the political ramifications of water distribution and the limitations imposed on power distribution. After a rigorous three-stage judging process by professional mathematicians over the next several weeks, winning teams will be awarded a total of \$100,000 in scholarships at the final event to take place at Moody's Corporation headquarters in New York City on April 28.

More details on the Challenge and [this year's problem statement](#) can be found at:

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

Have problem ideas for future Challenges? Go to:

<http://m3challenge.siam.org/problem/submitProblems.php>

SIAM Student Chapters discuss events, outreach

Representatives from 43 SIAM student chapters around the world met with SIAM leaders during Student Days held at the SIAM Conference on Computational Science and Engineering in Reno, Nevada earlier this month. Officers and members of the SIAM Board, Council, and Education and Membership committees heard ideas from chapter representatives on how best to support chapter events, outreach activities and funding opportunities. Individual chapters discussed highlights from the past year, and proposed ways to encourage new member involvement and the formation of new chapters. Other ideas included partnerships with SIAM sister organizations to offer workshops and funding, student meet-and-greets at SIAM conferences to allow networking opportunities, and provision of a calendar and resource of ideas for chapter events worldwide.

::: PUBLISHING NEWS AND NOTES :::

SIAM journals moving to universal data format

XML (Extensible markup language) has become the standard way of encoding both text and data so that content can be automated and displayed across many platforms and applications. It is the universal format for electronic communication. Because tagging in XML provides context information, searching capabilities are greatly improved and therefore much more efficient. This is probably its most important advantage over HTML and its use will improve the functionality of the web by letting us identify information in a more accurate, flexible and adaptable way. An added benefit is an even faster time to publication – with no sacrifice of quality. SIAM will be converting to an XML workflow for several of our journals over the next few months. The submission format for articles will continue to be in TeX, so authors will encounter no changes to the current system. Readers should not notice any disparities to the view and appearance of articles in PDF format. We are working hard to make this transition as invisible as possible for our authors and readers.

::: ICIAM UPDATES :::

Ingrid Daubechies to deliver The John von Neumann Lecture

Ingrid Daubechies joins the list of distinguished mathematicians who have delivered The John von Neumann Lecture over the 50 years that SIAM has awarded its flagship prize. The prize is awarded for outstanding and distinguished contributions to the field of applied mathematical sciences and for the effective communication of these ideas. Dr. Daubechies is a professor in both the Department of Mathematics and the Program in Applied and Computational Mathematics at Princeton University. She will receive the award and deliver The John von Neumann Lecture at a plenary session of [ICIAM 2011](#), taking place at the Vancouver Convention Centre in Vancouver, BC, Canada.

The lecture is scheduled for Monday, July 18, at 7:00 p.m. Professor Daubechies will receive her award at the CAIMS/MITACS/SIAM Awards Luncheon to be held Thursday, July 21, from 12:00 noon to 1:30 p.m.

For more on The John von Neumann Lecture, including the list of past recipients, see <http://www.siam.org/prizes/sponsored/vonneumann.php>.

Exhibit at ICIAM 2011

It's not too late to plan an exhibit at ICIAM 2011 (July 18-22)! If you need more reasons than showcasing your product or service at the largest international event for the applied mathematics and computational science community, look no further than its picturesque location of Vancouver, British Columbia. Occurring once every four years, the Congress routinely attracts a large community of researchers from the field. More than 3000 professionals and students are expected to attend this year. We have seen unprecedented levels of submissions (more than 500 contributed minisymposia – each representing 4 speakers; over 800 contributed papers; more than 100 contributed posters; and over 20 thematic and industrial minisymposia). The Congress will feature outreach activities and public and prize lectures, in addition to 27 invited speakers from around the world, collectively presenting an

unparalleled snapshot of industrial and applied mathematics in the 21st century. The poster session, reception and all coffee breaks will be held in the exhibit hall. Book your booth now!

For more details on exhibits, please go to:

http://www.iciam2011.com/index.php?option=com_content&view=article&id=49&Itemid=54

If you're interested in sponsoring ICIAM 2011, please visit:

http://www.iciam2011.com/index.php?option=com_content&view=article&id=45&Itemid=50

::: CONFERENCE UPDATES :::

Conferences accepting registrations and submissions

[SIAM International Conference on Data Mining \(SDM11\)](#), April 28-30, 2011, Mesa, Arizona, USA

Registration closes Thursday, March 31. Go to the [registration page](#) to register online and for information about registration fees:

<https://www.siam.org/meetings/sdm11/reginfo.php>

[SIAM Conference on Optimization \(OP11\)](#), May 16-19, 2011, Darmstadt, Germany

The meeting features over 80 minisymposia and eight invited speakers, including Jon Lee, of the IBM TJ Watson Research Center, who will speak on [*Nonlinear Integer Optimization: Incomputability, Computability and Computation*](#).

Registration closes Monday, April 4, 2011. Go to the [registration page](#) for a direct link to the online registration site:

<http://www.siam.org/meetings/op11/reginfo.php>

[SIAM Conference on Applications of Dynamical Systems \(DS11\)](#), May 22-26, 2011, Snowbird, Utah, USA

The program includes nine invited speakers, the Jürgen Moser Lecture, and over 130 minisymposia. Christopher Jones of the University of North Carolina at Chapel Hill, and University of Warwick will present an invited talk entitled, [*Will the Climate Change Mathematics?*](#)

Registration closes Friday, April 22, 2011. Go to the [registration page](#) to register online and for information about registration fees:

<https://www.siam.org/meetings/ds11/reginfo.php>

[SIAM Conference on Applied Algebraic Geometry \(AG11\)](#), October 6-9, 2011, Raleigh, North Carolina, USA

Deadline for minisymposia proposal submissions has been extended to March 14, and the last date to submit contributed lectures and posters is April 6. Go to the [submissions page](#) for more information:

<http://www.siam.org/meetings/ag11/submissions.php>

[SIAM Conference on Geometric and Physical Modeling \(GD/SPM11\)](#), October 24-27, 2011, Orlando, Florida, USA

Deadlines for:

Abstract submissions for proceedings: April 18, 2011
Full paper submissions for proceedings: April 25, 2011
Minisymposia, contributed talks and posters: May 30, 2011

Go to the [submissions page](#) for details:

<http://www.siam.org/meetings/gdspm11/submissions.php>

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

Deadline for minisymposia proposal submissions is April 18, and for contributed lectures and posters is May 16. Go to the [submissions page](#) for more details and information:

<http://www.siam.org/meetings/pd11/submissions.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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