

## **SIAM Unwrapped – May 27, 2014**

News & announcements for the SIAM membership community

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Dear SIAM members,

Have you made plans for the [SIAM Annual Meeting](#) yet? There is still time to pre-register online! Read details below.

Read more in this issue about how SIAM promotes applied mathematics and math modeling among high school students through Moody's Mega Math Challenge, as well as with a brand new math modeling handbook.

Regards,

Karthika Muthukumaraswamy  
Editor

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::: PUBLIC AWARENESS :::  
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### **North Carolina Team Places First in Moody's Mega Math Challenge**

Students from North Carolina School of Science and Mathematics (NCSSM) tasted victory when the team of five high school seniors earned the top prize at the ninth annual Moody's Mega Math ( $M^3$ ) Challenge last month. The top six teams, selected from nearly 1,200 competing high schools, squared off at the competition finals, with the Champion team from Durham, NC, receiving a \$20,000 team scholarship prize for presenting the best answer to the question: Can school lunches be nutritious, affordable, and delicious? Former Secretary of Agriculture Dan Glickman was in attendance, and addressed the finalists. "These remarkable students offered impressive solutions using their mathematical background and research and exposition skills to suggest ways to improve the school lunch program in the U.S.," Glickman said.

More than 5,000 high school students created math models to study caloric requirements based on individual attributes and to examine the effectiveness of new school lunch mandates implemented in U.S. schools. The Moody's Foundation awarded a total of \$125,000 in scholarships to winning teams this year. For an overview of the 2014 contest, or to find out how you might write a future contest problem, or become a judge, visit:

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

### **Modeling handbook perceives world through a mathematical lens**

Math can answer questions about a variety of topics, from calculating the cost-effectiveness of fuel sources to predicting the spread of disease and assessing roller coasters on the basis of their "thrill" factor. How does math do *all* that? That is the topic of a free handbook published by SIAM last month: "Math Modeling: Getting Started and Getting Solutions." The inspiration for the handbook came from Moody's Mega Math ( $M^3$ ) Challenge, and will help teachers and high school and undergraduate students learn how to model. "The guidebook is designed to remove perceived roadblocks by presenting modeling as a highly-creative iterative process in which multiple approaches—to the same problem—can lead to meaningful results," says Ben Galluzzo, assistant professor of mathematics at Shippensburg University, and co-author of the guidebook along with Karen Bliss (Quinnipiac University) and Katie Fowler (Clarkson University).

To read more about the handbook, visit:

<http://m3challenge.siam.org/about/mediacenter/?id=1601>

PDFs of the book are freely available for download at <http://m3challenge.siam.org/about/mm/>. To obtain print copies of the book for \$15 per copy to cover costs, please contact SIAM Customer Service at +1-215-382-9800 or toll-free 800-447-SIAM (US and Canada).

### **Mathematics and Climate authors “hang out” with SIAM**

Published by SIAM last October, the book, *Mathematics and Climate*, has been honored by Atmospheric Science Librarians International (ASLI) as the best book of 2013 in the fields of meteorology, climatology, and atmospheric sciences.

How can mathematical and statistical tools help us understand the dynamics of the Earth’s climate system? What are conceptual climate models and how do they aid in predicting future climate? What should mathematicians and scientists do to reinforce the urgency with which we should be tackling one of the biggest challenges of our time?

Authors Hans Kaper and Hans Engler, professors in the department of mathematics and statistics at Georgetown University in Washington, D.C., recently sat down with SIAM for a Google Hangout interview to answer these questions and more. Watch the interview!

<http://connect.siam.org/a-chat-with-authors-of-mathematics-and-climate/>

### **SIAM at the Coalition for National Science Funding Exhibition**

On May 7, SIAM participated in the annual Coalition for National Science Funding (CNSF) Exhibition with an exhibit on the Mathematics of Stem Cells, Drug Resistance, and Cancer. There were 275 people in attendance at the event, including eight members of Congress.

The SIAM exhibit was led by Dr. Doron Levy of the University of Maryland, College Park, who spoke to attendees about his research and the role of NSF funding in advancing mathematics. The CNSF Exhibition is an important effort to showcase research funded by NSF for congressional members and staff and SIAM appreciates Dr. Levy’s help in ensuring applied mathematics was represented at the event.

View more details and photos here:

<http://www.cnsfweb.org/>

### **Latest from SIAM Blogs**

Go to [blogs.siam.org](http://blogs.siam.org) for a glimpse at what’s going on in the greater mathematical community. This month, Don McMillen [repurposes for](#) Python languages the lessons from Des Higham and Nick Higham’s *MATLAB Guide*, Richard O. Moore writes about the [Mathematical Problems in Industry \(MPI\)](#) workshop, and Sam Relton discusses [programming with the Raspberry Pi](#).

If you want to contribute a post about your corner of the applied math/computational science world, send your questions or submissions to [blogs@siam.org](mailto:blogs@siam.org).

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::: SIAM HQ UPDATE :::  
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## Join SEMA for 30% less!

Did you know that because the Sociedad Española de Matemática Aplicada (SEMA) and SIAM are reciprocal societies, you can receive a 30% discount on regular SEMA member dues and receive all the benefits of belonging to SEMA? To encourage applied mathematicians and computational scientists to take advantage of the benefits of belonging to both societies, SEMA members who join SIAM also receive the same discount of 30%.

SEMA offers online subscriptions to [SEMA Journal](#) and [SEMA Bulletin](#); big discounts on [SEMA conferences](#) and [publications](#); eligibility to serve as a SEMA committee member, officer, and in other leadership positions; and plenty of intangible benefits, such as knowing that you are supporting your profession and increasing awareness of the importance of applied mathematics and computational science. See more benefits and join at [www.sema.org.es](http://www.sema.org.es).

See SIAM's reciprocal membership page for information on other societies SIAM has a reciprocal relationship with:

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

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**::: STUDENT NEWS & NOTES:::**  
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### **SIAM Student Chapter recipients receive awards for noteworthy work**

66 students who made outstanding contributions to their SIAM student chapters have been awarded certificates of recognition. The program recognizes the importance of student contributions in creating and sustaining exciting chapters, acknowledges students' efforts within the greater SIAM community, and provides a noteworthy commendation for students to add to their records for career building. We would like to congratulate all recipients and thank them for their contributions to the development and growth of SIAM student chapters. Please view the full list of certificate recipients here:

<http://connect.siam.org/recipients-named-for-eighth-annual-siam-student-chapter-certificate-of-recognition/>

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**::: UPDATES ON CONFERENCES & PRIZES :::**  
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### **Presentations from UQ14 now available to view**

Presentations from select sessions at the [2014 SIAM Conference on Uncertainty Quantification](#) are now available on SIAM Presents...Featured Lectures from Our Archives:

<http://www.siam.org/meetings/presents.php>

Please go to the [direct link](#) to view the sessions captured. You do not need to login to view presentations, though registering will allow you to track the presentations you access. Audio/slides can

be viewed by selecting “Invited Speakers”, “Minisymposia” or “Minitutorials” from the left sidebar and then connecting to a specific session.

## [SIAM conference registrations & submissions](#)

### **Registrations for the 2014 Annual Meeting and workshops co-located with the Annual Meeting:**

[SIAM Workshop on Exascale Applied Mathematics Challenges and Opportunities \(EX14\)](#), July 6, 2014, Chicago, Illinois, USA

[Pre-registration](#) deadline: June 9, 2014

[SIAM Workshop on Network Science \(NS14\)](#), July 6-7, 2014, Chicago, Illinois, USA

[Pre-registration](#) deadline: June 9, 2014

[2014 SIAM Annual Meeting \(AN14\)](#), July 7-11, 2014, The Palmer House, Chicago, Illinois, USA

[Pre-registration](#) deadline: June 9, 2014

[SIAM Conference on the Life Sciences \(LS14\)](#) , August 4-7, 2014, Charlotte, North Carolina, USA

[Pre-registration](#) deadline: July 7, 2014

[SIAM Conference on Nonlinear Waves and Coherent Structures \(NW14\)](#), August 11-14, 2014, Cambridge, United Kingdom

[Pre-registration](#) early-bird rate deadline: July14, 2014

[ACM-SIAM Symposium on Discrete Algorithms \(SODA15\)](#), January 4-6, 2015, San Diego, California, USA

Short abstract [submission](#) and paper registration deadline : July 2, 2014

Full paper [submission deadline](#): July 7, 2014

[Algorithm Engineering and Experiments \(ALENEX15\)](#), January 5, 2015, San Diego, California, USA

Extended abstracts [deadline](#): September 22, 2014

[SIAM Conference on Computational Science and Engineering \(CSE15\)](#), March 14-18, 2015, Salt Lake City, Utah, USA

Minisymposium proposal [submission](#) deadline: July 31, 2014:

Abstracts for contributed and minisymposium speakers [submission](#) deadline: August 21, 2014

Abstracts for contributed posters and minisymposium posters (thematic groups) [submission](#) deadline: August 21, 2014

### **Photos from SIAM conferences**

Visit our Facebook page to view photos from the 2014 SIAM conferences on Uncertainty Quantification, Parallel Processing, and Data Mining:

[https://www.facebook.com/SIAMconnect/photos\\_albums](https://www.facebook.com/SIAMconnect/photos_albums)

You do not need to log in to Facebook to view the photo albums.

### [Prize nomination deadlines](#)

[SIAM/ACM Prize in Computational Science and Engineering](#): June 1, 2014

[The John von Neumann Lecture](#): September 15, 2014

[Ralph E. Kleinman Prize](#): October 15, 2014

[George Pólya Prize for Mathematical Exposition](#): October 15, 2014

[W. T. and Idalia Reid Prize](#): October 15, 2014

[AWM-SIAM Sonia Kovalevsky Lecture](#): November 1, 2014

[Germund Dahlquist Prize](#): November 15, 2014

For the complete list of the call for nominations, please visit:

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

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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](mailto:karthika@siam.org).

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.

Please note: If you would prefer not to receive this e-newsletter, reply to this email with the word "unsubscribe" in the subject line and you will be removed from the *SIAM Unwrapped* mailing list.