

SIAM Unwrapped – October 2014

News & announcements for the SIAM membership community

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Dear SIAM members,

We all know you continue to be part of SIAM for a reason (or several reasons), and we are delighted to be able to offer the kind of experience, services and products that ensure your loyalty.

It is time to renew your membership for 2015. Click here to view the [2015 renewal brochure](#) to see what's new and exciting for next year. If you are a nonstudent member, you can also nominate up to two students per year for a free student membership.

[Keep in touch](#) with us through our various social media channels or via email, to send us suggestions for how SIAM can make your membership even more valuable to you.

Regards,

Karthika Muthukumaraswamy

Editor

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Contents:

SIAM HQ UPDATE

- Fellows nominations close November 3!
- Spread the word about SIAM!
- Join the SIAM Activity Group on Education

PUBLIC AWARENESS

- SIAM partnering with COMAP in math modeling education initiative
- How does SIAM raise awareness about math?

STUDENT NEWS & NOTES

- Sky's the limit for SIAM student chapters

PUBLISHING NEWS & NOTES

- New SIAM books
 - *Solving Transcendental Equations: The Chebyshev Polynomial Proxy and Other Numerical Rootfinders, Perturbation Series, and Oracles*
 - *Variational Analysis in Sobolev and BV Spaces: Applications to PDEs and Optimization*

UPDATES ON CONFERENCES & PRIZES

- Exhibit at one of SIAM's most popular meetings
- CS&E Career Fair: Alternative to Academe
- Participate in CS&E student activities
- Child Care Grants for CSE15
- Call for Proposals: Gene Golub SIAM Summer School 2016
- SIAM conference registrations & submissions
- Prize nomination deadlines

::: SIAM HQ UPDATE :::

Fellows nominations close November 3!

Do you know a colleague who has made outstanding contributions to the fields of applied mathematics and computational science? If so, nominate them as a 2015 SIAM Fellow! The deadline to submit your nominations is less than a month away.

The goal of the SIAM Fellows program is to make outstanding SIAM members more competitive for awards and honors, to support advancement of members to leadership positions in the broader society, and to raise visibility of the mathematical sciences. You can help us do all of that by nominating candidates worthy of this distinction.

Please review the eligibility criteria and nomination procedures at

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

Spread the word about SIAM!

It's always a great feeling to open up your colleagues and friends to the many benefits of a SIAM membership, and there couldn't be a better time to do it than now.

If you convince a colleague to join SIAM by December 31, both you and your colleague will be entered into our [Member-Get-a-Member](#) contest drawing to win an iPad and other great prizes. In addition, anyone who joins SIAM for 2015 now (using the 15-month membership application), will get the rest of 2014 for free. Plus, you will receive a €SIAM t-shirt for your recruitment efforts. Tell your colleague to join now by going to:

www.siam.org/joinsiam

Join the SIAM Activity Group on Education

The Board and Council approved the SIAM Activity Group on Education (SIAG/ED) in July. The new SIAG will promote excellence in applied mathematics educational programs, courses and practice, broadly covering industrial mathematics, computational science, modeling, data sciences, applied statistics and the application domains. While primarily focusing on undergraduate education, it will also extend its activities to graduate and pre-college education. The SIAG will hold a regular conference. Read more details about the SIAG [here](#). When you renew your SIAM membership, keep in mind that you can add membership to the SIAG on Education – and encourage others to do the same! If you've already renewed, [contact SIAM customer service](#) to add SIAG/ED to your membership.

::: PUBLIC AWARENESS :::

SIAM partnering with COMAP in Math Modeling Education Initiative

A partnership between SIAM and COMAP, Guidelines for Assessment and Instruction in Math Modeling Education (GAIMME) aims to establish that the modeling process is understood as part of STEM studies and research, and as a basic tool for problem solving and logical thinking. GAIMME will help define core competencies to be included in student experiences, explore existing effective work, and provide direction to enhance math modeling education at all levels. A mix of professionals is being invited as writers and reviewers to ensure all desired characteristics, experiences, and professional affiliations are assembled.

Peter Turner, founding EIC of *SIAM Undergraduate Research Online* (SIURO) and current VP for Education, and Rachel Levy, current EIC of SIURO and incoming VP for Education, have enthusiastically endorsed this project, making the following joint statement: "SIAM is in an ideal position to convey to K-16 educators and the general public how mathematical modeling can enhance mathematics education and provide students with 21st century job skills. The new GAIMME document will dovetail well with

other SIAM education initiatives, including the recent Modeling across the Curriculum workshops and connections with Moody's Mega Math Challenge and COMAP and its MCM/ICM."

How does SIAM raise awareness about math?

In addition to fostering the development of applied mathematics and computational science through publications, conferences, and community, one of SIAM's goals is to raise awareness of the value and significance of the mathematical sciences among the general public. SIAM fulfills this goal in a variety of ways: "Nugget" articles that boil down complex research papers for the general audience; colorful "Math Matters" flyers that explain the math behind everyday life; multimedia nodes in "Why Do Math" that describe mathematical applications at the popular science level; and "SIAM Presents" – presentations and video clips of cutting-edge research from SIAM conferences. To learn more, see members talk about SIAM's various public awareness initiatives in this brief clip:

<http://youtu.be/fez3LwcpMt8>

Do you have a video that demonstrates novel and interesting applications of math? Send it to pao@siam.org for consideration for our member portal.

::: STUDENT NEWS & NOTES:::

Sky's the limit for SIAM student chapters

SIAM student chapters around the world capitalized on the close to \$40,000 SIAM provided in funds to support their activities during the 2013-2014 academic year. From a campus celebration of Sonia Kovalevsky Day aimed at high school women interested in pursuing math degrees; a math field day targeting middle and high school students; to a two-week summer program introducing local high school students to mathematical modeling, chapters conducted plenty of outreach to illustrate the value and importance of math. Professional development activities included industry seminar series, and field visits to an energy lab and a supercomputing facility, giving students opportunities to interact with professional mathematicians.

Read a more detailed report of various chapter activities here:

<http://connect.siam.org/student-chapters-update/>

::: PUBLISHING NEWS & NOTES :::

New SIAM Books

Solving Transcendental Equations: The Chebyshev Polynomial Proxy and Other Numerical Rootfinders, Perturbation Series, and Oracles

John P. Boyd

Transcendental equations arise in every branch of science and engineering. While most of these equations are easy to solve, some are not, and that is where this book serves as the mathematical equivalent of a skydiver's reserve parachute—not always needed, but indispensable when it is. The author's goal is to teach the art of finding the root of a single algebraic equation or a pair of such equations.

Additional information: <http://bookstore.siam.org/ot139/>

2014 / xviii + 460 / softcover / ISBN 978-1-611973-51-8 / List Price \$99.00 / Member Price \$69.30 / Order Code OT139

Variational Analysis in Sobolev and BV Spaces: Applications to PDEs and Optimization

Hedy Attouch, Giuseppe Buttazzo, Gérard Michaille

This volume is an excellent guide for anyone interested in variational analysis, optimization, and PDEs. It offers a detailed presentation of the most important tools in variational analysis as well as applications to problems in geometry, mechanics, elasticity, and computer vision.

Additional information: <http://bookstore.siam.org/mo17/>

2014 / xii + 793 pages / Hardcover / ISBN: 978-1-611973-47-1 / List Price \$141.00 / MOS/SIAM Member Price \$98.70 / Order Code MO17

::: UPDATES ON CONFERENCES & PRIZES :::

CS&E Career Fair: Alternative to Academe

A Career Fair featuring representatives from nonacademic employers will take place on Saturday, March 14, 2015 at the [SIAM Conference on Computational Science and Engineering](http://www.siam.org/meetings/cse15/) (CSE15), Salt Lake City, Utah. Representatives will discuss full-time jobs, postdoctoral positions, and internships with potential job seekers. The event will feature a full day of sessions with a focus on nonacademic jobs including a career panel with lunch provided, and a Professional Development Evening session. Those interested may submit one-page resumes that will be made available to the representatives of employers. For more information, go to <http://www.siam.org/meetings/cse15/career.php>.

SIAM is still accepting employers to participate in the fair. If your company is interested in sending a representative, please contact Kristin O'Neill at oneill@siam.org.

Exhibit at one of SIAM's most popular meetings

There are several exciting sponsorship and exhibition opportunities at the [SIAM Conference on Computational Science and Engineering](#) (CSE15), including the chance to exhibit at the meeting, participate in a career fair, and market your organization to the SIAM community. The CSE15 conference has become the most highly-attended SIAM conference! Don't miss your chance to showcase your organization to the SIAM community. Next year's meeting will be held March 14-18 at The Calvin L. Rampton Salt Palace Convention Center in Salt Lake City, Utah.

There are a myriad number of ways to enhance your tabletop and Career Fair presence. Consider [placing an ad](#) in *SIAM News*, sponsoring an issue of *Unwrapped*, placing an ad in the final program, and/or renting the technical attendee list. The exhibit form can be viewed at: http://www.siam.org/meetings/cse15/cse15_exhibit.pdf

If you prefer to support the conference, choose from several sponsorship options available: poster sessions, the welcome reception, Internet café, mobile app, and more. All sponsorship opportunities can be viewed here: <http://www.siam.org/meetings/cse15/sponsorship.pdf>

Please contact Kristin O'Neill at oneill@siam.org for more information about any of these opportunities.

Participate in CS&E student activities

Student Days at the [2015 SIAM Conference on Computational Science and Engineering](#) will feature activities and sessions where students can meet with peers and professionals in the field, including a student orientation, a career fair, an information session on hot areas for jobs and research, an informal session for students to meet with select invited speakers, and a breakfast meeting for SIAM Student Chapter representatives. Technical sessions will include presentations by student chapter representatives and undergraduate researchers. View complete details here:

<http://www.siam.org/meetings/cse15/studentday.php>

Child Care Grants for CSE15

SIAM is offering up to \$250 per family for attendees who bring children to the 2015 Conference on Computational Science and Engineering being held in Salt Lake City, Utah, in March 2015. For more information and a link to the application form, please visit:

<http://www.siam.org/meetings/cse15/childcare.php>

The deadline for applications is January 16, 2015.

Call for Proposals: Gene Golub SIAM Summer School 2016

SIAM is calling for letters of intent proposing topics and organizers for the 2015 Gene Golub SIAM Summer School (G2S3). Preference will be given to a computational linear algebra theme in 2016, but letters of intent in all areas of applied and computational mathematics will be considered. It is expected that the program will run two weeks and accept 40 – 50 graduate students. SIAM will contribute up to \$95,000 towards the running of the summer school.

Information about the G2S3 program, including the composition of the G2S3 committee can be found at www.siam.org/about/com_golub.php.

The deadline for letters of intent is January 31, 2015. Full proposals are due March 31, 2015. For more details, visit: www.siam.org/students/g2s3/summer_call.php

Find information on the 2015 [G2S3](#) to be held June 15 – 26, 2015 in Delphi, Greece, and view the [archives](#) for previous schools.

SIAM conference registrations & submissions

[SIAM Conference on Financial Mathematics and Engineering \(FM14\)](#), November 13-15, 2014, Chicago, Illinois, USA

[Pre-registration](#) deadline: October 14, 2015

[SIAM International Conference on Data Mining \(SDM15\)](#), April 30-May 2, 2015, Vancouver, British Columbia, Canada

Paper [submission](#) deadline: October 12, 2014

Tutorial proposal [submission](#) deadline: October 12, 2014

[SIAM Conference on Applications of Dynamical Systems \(DS15\)](#), May 17-21, 2015, Snowbird, Utah, USA

Minisymposium proposals [submission](#) deadline: October 20, 2014

Abstracts for minisymposia, contributed lectures and poster [submissions](#) are due: November 17, 2014

[The 13th International Symposium on Orthogonal Polynomials, Special Functions and Applications \(OPSFA13\)](#), June 1-5, 2015, Gaithersburg, Maryland, USA

Minisymposium proposals [submission](#) deadline: November 3, 2014

Abstracts for contributed and minisymposium speakers [submissions](#) are due: February 2, 2015

[SIAM Conference on Mathematical and Computational Issues in the Geosciences \(GS15\)](#), June 29-July 2, 2015, Stanford, California, USA

Minisymposium proposals [submissions](#) deadline: December 11, 2014

Abstracts for minisymposia, contributed lectures and poster [submissions](#) deadline: January 15, 2015

[SIAM Conference on Control and Its Applications \(CT15\)](#), July 8-10, 2015, Paris, France

Minisymposium proposals [submission](#) deadline: January 12, 2015

Abstracts for contributed and minisymposium speaker [submission](#) deadline: January 21, 2015

Full Paper for consideration in [Proceedings](#): January 21, 2015

Prize nomination deadlines

[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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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.

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