

SIAM Unwrapped

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January 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,

Happy New Year!

SIAM is pleased to announce that officers have been elected to serve new terms for several SIAM Activity Groups. Please find information on the new officers [here](#) or visit the [SIAG page](#) for details.

To continue to receive your SIAM publications without interruption, please be sure to [renew online](#) or download and print out your 2011 renewal invoice and mail or fax back to SIAM.

Wishing you a wonderful 2011!

Regards,

Karthika Muthukumaraswamy

Editor

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::: SIAM HQ UPDATE :::

SIAM Board and Council members elected

We are pleased to announce the election of the following members to the SIAM Board and Council. Each will serve a three-year term beginning January 1, 2011. The 2010 SIAM election closed on November 1.

New Members, Board of Trustees: C. T. Kelley and Robert V. Kohn

New Council Members-at-Large: Oscar P. Bruno and Angelika Bunse-Gerstner

The following members were re-elected: Stephen J. Wright, to the SIAM Board; Margot Gerritsen and Mary Silber, to the SIAM Council

We would like to extend our gratitude to departing board member John G. Lewis and to departing council members Steven Cox and Mary Pugh. We would like to express our thanks to *all* who ran as candidates in this election.

New SIAG in Uncertainty Quantification

SIAM's newest activity group, the SIAG on Uncertainty Quantification (SIAG/UQ), aims to foster collaboration on the effects of uncertainty and error in mathematical descriptions of real phenomena. Seeking to promote the development of theory and methods to quantitatively describe the origin, propagation, and interplay of different sources of error and uncertainty in analysis and predictions of complex system behavior, the field spans the study of biological, chemical, engineering, financial, geophysical, physical and social/political systems.

For information on officers and the first SIAM Conference on Uncertainty Quantification, please visit the [SIAG/UQ page](#):

<http://www.siam.org/activity/uq/>

Members can join the new SIAG while renewing for 2011, or go to the link below to join:

https://my.siam.org/forms/join_siag.htm

Invite a colleague to join SIAM!

Being a member of SIAM, you most likely know of the many perks of membership, namely, access to the diverse community of applied mathematicians and computational scientists, discounts on SIAM publications and events, professional development opportunities, and the like. So why not pass along that information to someone who is yet to discover SIAM? You would be giving them an opportunity to experience the many benefits of being a SIAM member. In addition, if your referred colleague joins SIAM, you could both 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>

::: **CYBER-SIAM UPDATES** :::

Introducing SIAM Connect

In the interest of expanding our ever-increasing online presence and allowing members a forum to offer their feedback, SIAM has a [new and improved online news page](#). In addition to allowing users the option to comment on and share stories, the new page provides more extensive site searchability. Readers can leave their comments through the comment box at the end of each news item, and also have the option to share articles through major social networks such as Facebook, Twitter, Digg etc. The searching features allow users to search for articles by categories and tags in addition to the enhanced search box.

Check it out!

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

We plan to continue updating and improving the site over the next few months, so please feel free to offer your comments and feedback, including any additional forms of content you would like to see on the site.

Let's be social about social media

If the increasing number of social media buttons on the top right corner of the SIAM home page is any indication, SIAM is increasing its foray into the social media sphere. In addition to the popular social networks available, we are also exploring options for a customized, private online community for SIAM members to communicate, interact, and collaborate with each other. In keeping with the goals of social media, we are asking you, our members, to answer a few questions about how you would like to use such a platform for your academic and professional requirements. Your answers will help us tailor our

online community to best serve your needs. To that end, an online survey was sent out to all members in the third week of December.

In case you missed it, but would still like to participate, please go to the link below:

<http://budurl.com/SIAM>

Please respond before January 25, 2011 for your input to be counted. The survey should take no more than 6 minutes to complete. Thanks for helping shape SIAM's future online community!

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

Student Days at CSE11

Student Days, an opportunity for students to network with peers and professionals, will be held Wednesday March 2, 2011, during the [SIAM Conference on Computational Science and Engineering \(CSE11\)](#), February 28—March 4, in Reno, Nevada. Students can take the opportunity to partake in events organized by the SIAM Education Committee and SIAM Student Chapters from around the world.

Information on Student Days, including the program can be found at:

<http://www.siam.org/meetings/cse11/students.php#studentdays>

For more details on the program, please download the flyer at the link below:

http://www.siam.org/meetings/cse11/CSE11_Student_Days_flyer.pdf

Other information, including details on registration and accommodation for CSE11 can be found here:

<http://www.siam.org/meetings/cse11/students.php>

Participate in the Gene Golub SIAM Summer School

Letters of intent for those planning to submit a proposal to organize and run the 2012 Gene Golub SIAM Summer School (G2S3) are due January 31, 2011. For more details see the Call for Proposals at:

http://www.siam.org/students/summer_call.php

The application deadline for students interested in attending the 2011 G2S3 on Waves and Imaging is February 1, 2011. The school will be held July 4—15, 2011, in Vancouver, Canada. For more information and a link to the application site, go to: <http://www.siam.org/students/summer.php>

Summer 2011 fellowships, internships, and research opportunities

Many organizations provide opportunities for fellowships or research experiences for students. Find a listing of a few of these programs, including fellowships for graduates and research opportunities for

graduate and undergraduate students on the SIAM Students page at:

<http://www.siam.org/students/resources/fellowship.php>

Listings for corporations and institutions including industry, research institutes, and government labs, which provide internships and fellowship opportunities, can be found on the Careers page:

<http://www.siam.org/careers/internships.php>

Free SIAM student memberships

Students attending SIAM academic member schools can join SIAM for free. A poster with the list of member schools will be distributed in the January/February issue of *SIAM News*. The link below also has a list of academic member schools:

http://www.siam.org/membership/academic/academic_members.php

Graduate students may join online at:

https://my.siam.org/cust_serv

Undergraduate students must be nominated by a faculty member.

::: PUBLISHING NEWS AND NOTES :::

SIAM launches e-books

If you haven't already heard, SIAM books are entering the electronic age in 2011. The e-book program, set to launch January 27, will allow institutions to access SIAM books electronically via purchase or subscription. Starting with about 200 books in January, the program will gradually expand over the next few months to include almost the entire SIAM library, encompassing over 400 books. Hosted by the same AIP/Scitation platform as SIAM Journals Online, e-books will improve the convenience of accessing SIAM publications worldwide. Articles will be universally accessible on all browser and computer types in PDF format, viewable by individual chapters, and searchable by specific keywords. Books published after launch will be available online immediately upon publication. SIAM member institutions will receive 20% off the list price on e-book access plans. There is also an introductory 20% discount available to all subscribers through June 30, 2011.

Please contact ebooks@siam.org for details on subscriptions and prices, or visit the [ebooks page](#):

<http://www.siam.org/books/ebooks.php>

New SIAM books

The Linear Sampling Method in Inverse Electromagnetic Scattering

Fioralba Cakoni, David Colton, and Peter Monk – University of Delaware

The linear sampling method is the oldest and most developed of the qualitative methods in inverse scattering theory. It is based on solving a linear integral equation whose solution is then used as an indicator function for the determination of the support of the scattering object. This book describes the linear sampling method for a variety of electromagnetic scattering problems. It presents uniqueness theorems and the derivation of various inequalities on the material properties of the scattering object from knowledge of the far field pattern of the scattered wave.

Additional information: <http://www.ec-securehost.com/SIAM/CB80.html>

2010 / x + 142 pages / Softcover / ISBN 978-0-898719-39-0

List Price \$55.00 / SIAM/CBMS Member Price \$38.50 / **Order Code CB80**

Shapes and Geometries: Metrics, Analysis, Differential Calculus, and Optimization, Second Edition

M. C. Delfour – University of Montreal, Canada

J. P. Zolésio – National Center for Scientific Research, France

This considerably enriched new edition provides a self-contained presentation of the mathematical foundations, constructions, and tools necessary for studying problems where the modeling, optimization, or control variable is the shape or the structure of a geometric object. *Shapes and Geometries: Metrics, Analysis, Differential Calculus, and Optimization* presents the latest groundbreaking theoretical foundation to shape optimization in a form that can be used by the engineering and scientific communities. It also clearly explains the state-of-the-art developments in a mathematical language that will attract mathematicians to open questions in this important field. A series of generic examples has been added to the introduction and special emphasis has been put on the construction of important metrics.

Additional information: <http://www.ec-securehost.com/SIAM/DC22.html>

2011 / xvii + 622 / Hardcover / ISBN 978-0-898719-36-9

List Price \$119.00 / SIAM Member Price \$83.30 / **Order Code DC22**

::: **ICIAM UPDATES** :::

Register for ICIAM 2011!

If you haven't already registered for ICIAM 2011, now is the time! The Congress has received more than 900 contributed papers and posters, and over 2,000 minisymposium talks' submissions and counting. It's bound to be an exciting event. [Register](#) prior to February 28, 2011 to take advantage of discounted early bird rates. ICIAM has also negotiated competitive rates for delegates at many hotels and hostels within easy proximity of the Vancouver Convention Centre. Rates range from \$35—\$239. Click [here](#) for full details:

http://www.iciam2011.com/index.php?option=com_content&view=article&id=30&Itemid=32

::: CONFERENCE UPDATES :::

International Conference on Special Functions in the 21st Century

SIAM is sponsoring a limited number of travel grants for US-based postdocs and early level researchers (within 5 years of a doctorate) for the [International Conference on Special Functions in the 21st Century: Theory and Applications](#), to be held April 6—8, 2011, in Washington, DC. Inquires about travel support should be sent to Daniel Lozier at Daniel.Lozier@nist.gov. More information about the conference and how to register can be found at the link below:

<http://www.nist.gov/itl/math/sf21.cfm>

Conferences currently accepting submissions

1. [SIAM Conference on Control and Its Applications](#), July 25—27, 2011, Baltimore, Maryland (ICIAM 2011 Satellite Meeting)

Abstracts for contributed and minisymposium speakers are due January 31, 2011.

Submission information is at:

<http://www.siam.org/meetings/ct11/submissions.php>

2. [SIAM Conference on Applied Algebraic Geometry](#), October 6—9, 2011, Raleigh, North Carolina

Minisymposium proposals are due March 7, 2011. Abstracts for contributed and minisymposium speakers are due April 6, 2011.

Submission information is at:

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

3. [SIAM Conference on Geometric and Physical Modeling](#), October 24—27, 2011, Orlando, Florida (held in-cooperation with ACM SIGGRAPH)

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

Submission information is at:

<http://www.siam.org/meetings/gdspm11/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.

Society for Industrial and Applied Mathematics (SIAM)

3600 Market Street, 6th Floor

Philadelphia, PA

19104-2688 USA

+1 215-382-9800

+1 215-386-7999 fax

www.siam.org

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