Issue 4, Spring 2007 Dear SIAM members.

Greetings in 2007! It looks to be a productive and exciting year. As always, if you have any interesting topics or suggestions for future issues of Unwrapped please let me know.

Enjoy!

Sincerely,

Dan Cleary Editor, SIAM Unwrapped

Contents:

SIAM HQ UPDATE

- SIAM Job Board is online
- Bylaws passed by membership
- Math Institutes Seeking Directors
- Moody's Mega Math Challenge
- Travel Support for Post-doc/Early Career Attendees

MEMBERS IN THE NEWS

- SIAM/ACM Prize awarded at CSE07
- Nick Trefethen elected to NAE
- Prizes presented at Joint Mathematics Meetings
- Mathematician turns chaos into crochet

APPLIED MATH IN THE NEWS

- NSF proposes an investment of \$6.43 billion
- US government launches competition for new super algorithm
- Billion-variable optimization using genetic algorithms
- Invest in math or suffer brain drain

PUBLICATIONS NEWS & NOTES

- SIAM will launch a new journal in 2008

:: SIAM HQ UPDATE ::

SIAM Job Board Online! - Beginning in late January 2007, SIAM made it easier for people in the math community to find a job or an employee. SIAM Job Board Online offers job seekers and employees a unique and easy way to connect. Job seekers can set up a personal account to find jobs, manage resumes, and set up job alerts. Employers can set up their personal account online to quickly post jobs, search through resumes, and manage their recruiting online. Check it out at http://jobs.siam.org

Bylaws passed by membership - The new bylaws were passed by the membership and are now available online at http://www.siam.org/about/pdf/bylaws.pdf

Math Institutes Seeking Directors - Several of the NSF-funded mathematical sciences institutes are seeking directors. Detailed information can be found on the institutes' web sites. These are important positions for the mathematical sciences community, and so SIAM members need to be aware of this opportunity.

See: <u>http://www.ipam.ucla.edu/jobopenings/director.html</u> <u>http://www.ima.umn.edu/job-announce/</u> <u>http://www.msri.org/about/jobs/director</u>

Moody's Mega Math Challenge - SIAM is in the midst of running the second annual M3 Challenge, a math modeling competition for high school juniors and seniors in the NYC Metro area taking place in March 2007. Funding is provide by the Moody's Foundation. Read more here: http://m3challenge.siam.org

Travel Support for Post-doc/Early Career Attendees - SIAM announces the availability of Postdoc/Early Career awards for 2007. The funds for these awards are provided by a grant from the U.S. National Science Foundation.To apply, go to <u>http://www.siam.org/prizes/sponsored/postdoctravel.php</u>

:: MEMBERS IN THE NEWS ::

The 2007 SIAM/ACM Prize awarded at CSE07- SIAM member Dr. Chi-Wang Shu, Professor of Mathematics in the Division of Applied Mathematics at Brown University, was presented with the 2007 SIAM/ACM Prize in Computational Science and Engineering. The award was presented "for the development of numerical methods that have had a great impact on scientific computing, including TVD temporal discretizations, ENO and WENO finite difference schemes, discontinuous Galerkin methods, and spectral methods."

Read more here: http://www.siam.org/about/news-siam.php?id=1071

Nick Trefethen for elected to National Academy of Engineering - Congratulations to SIAM member Nick Trefethen who was elected to the NAE "for contributions to stability theory in numerical analysis and its application to the determination of the onset of turbulence." Read more here: <u>http://www8.nationalacademies.org/onpinews/newsitem.aspx?RecordID=02092007</u>

Prizes presented at Joint Mathematics Meetings - The AMS-SIAM Wiener Prize was presented a to SIAM members Craig Tracy of the University of California at Davis and Harold Widom of the University of California at Santa Cruz for "deep and original work on random matrix theory, a subject which has remarkable applications across the scientific spectrum." Read more here: http://www.eurekalert.org/pub_releases/2007-01/ams-ppa122906.php

Mathematician turns chaos into crochet - SIAM member Hinke Osinga is working on the Lorenz equations, which are used to model the difficult-to-predict system we know as the weather. Dr Osinga, the daughter of a handicrafts teacher, spent 85 hours crocheting a 3D model that she says really put things in perspective. Read more here: <u>http://www.abc.net.au/news/newsitems/200701/s1835760.htm</u>

:: APPLIED MATH IN THE NEWS ::

NSF proposes an investment of \$6.43 billion - National Science Foundation (NSF) proposes an investment of \$6.43 billion in fiscal year (FY) 2008 for agency programs to advance frontiers of research and education in science and engineering. The request is an increase of nearly \$409 million over the FY 2007 request. Read more here:

http://www.nsf.gov/news/news_summ.jsp?cntn_id=108364&org=NSF&from=news

US government launches competition for new super algorithm - The US government has launched a public competition to pick a new cryptographic hash algorithm that will become the new federal information processing standard. Read more here: http://www.techworld.com/security/news/index.cfm?NewsID=7850

Billion-variable optimization using genetic algorithms - A paper published in the journal Complexity ("Toward routine billion-variable optimization using genetic algorithms") describes how a team of researchers in the Illinois Genetic Algorithms Laboratory (IlliGAL) at the University of Illinois at Urbana-Champaign has achieved efficient, scalable solutions on difficult optimization problems containing over a billion variables. Read more here: http://www.nanowerk.com/news/newsid=1291.php

Invest in math or suffer brain drain - The Australian government discusses the decline of teachers and students studying mathematics and the possibility of loosing its intellectual and competitive edge in innovation. Read more here: <u>http://www.abc.net.au/news/newsitems/200702/s1841809.htm</u>

:: PUBLICATIONS NEWS & NOTES ::

SIAM will launch a new journal in 2008: SIAM Journal on Imaging Sciences (SIIMS) - Following the go-ahead from the Board of Trustees and Council in December, Editor-in-Chief Guillermo Sapiro has assembled the initial Editorial Board and aims to begin accepting manuscript submissions by spring. SIIMS will be an electronic-only, continuous publication. The use of color animations, video, and additional supplementary material is strongly encouraged. Read more here:

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? Send them to cleary@siam.org

Society for Industrial and Applied Mathematics (SIAM) 3600 University City Science Center Philadelphia, PA 19104-2688 USA +1 215-382-9800 +1 215-386-7999 fax www.siam.org

This is an official SIAM membership publication. Please note: If you would prefer not to receive this enewsletter, please reply to this email with the word "unsubscribe" in the subject line and you will be removed from the SIAM Unwrapped mailing list.