

A PUBLICATION TO INFORM
MEMBERS ABOUT SOCIETY
ACTIVITIES AND NEWS.



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ICM 2006

Over 4,500 participants attended the International Congress of Mathematicians (ICM) 2006, in Madrid, Spain, August 22–30. On the opening day, the **2006 Fields Medals** were awarded to **Andrei Okounkov**, **Grigory Perelman**, **Terence Tao**, and **Wendelin Werner**. The King of Spain presided over the ceremony and bestowed the medals. In announcing the award to Perelman, John Ball, president of the International Mathematical Union, stated that Perelman had declined to accept the medal. Media worldwide had speculated on the Fields Medal recipients, and reported extensively on Perelman's refusal to accept the award. **Jon Kleinberg** received the **Nevanlinna Prize**, for outstanding contributions in mathematical aspects of information sciences, and **Kiyoshi Itô** was awarded the first-ever **Gauss Prize**, for mathematical research which has had an impact outside mathematics.

The AMS exhibited over 350 books, and materials about Society programs, including translated versions of *Mathematical Moments*, and demonstrated the recent enhancements to MathSciNet. Terence Tao signed his book, *Nonlinear Dispersive Equations: Local and Global Analysis*, in the AMS exhibit area. Since the 2002 ICM, AMS members contributed over \$70,000 to the International Mathematical Union's Special Development Fund, which awarded travel grants to young mathematicians from developing countries, enabling them to participate in the 2006 ICM.

Read more Read about the Fields Medal winners at www.ams.org/ams/press/fields-2006.html and the extensive media coverage at <http://www.ams.org/mathmedia/mathdigest/#200609-fields>. See the ICM2006 website for details about the program and satellite conferences at www.icm2006.org/ and see more photographs at www.ams.org/ams/ICM2006Photos.html



Last Issue's Scrambler Solution

Who would not rather have the fame of Archimedes than that of his conqueror Marcellus?

– William Rowan Hamilton

The winners were **Jeff Achter, Bahman Engheta, Cameron Freer, Chad Groft, Rick Mabry, Elliott Mendelson, Richard O. Moore, Adriana Salerno, Tomas Schonbek, and Thomas P. Turiel**. Each was awarded 25 AMS Points.

“The Sixteen Grid”

	–		×		×		= -60
×		+		×		÷	
	+		+		–		= 29
+		+		–		×	
	–		–		–		= -14
+		–		+		–	
	×		–		–		= 32
= 28		= 1		= 57		= 27	

Each of the numbers 1, 2, ..., 16 is used exactly once in the empty cells to form arithmetic expressions connected by symbols for the four basic operations. Each row (column) is an arithmetic expression, read and performed left to right (top to bottom), *disregarding the usual order of operations*, to yield the result at the right (bottom).

The Grid and Hints are available at www.ams.org/ams/16-grid.html, or by request to Public Awareness Office, AMS, 201 Charles St. Providence, RI 02904.

Submit the solution to this puzzle by email to paoffice@ams.org (with your solution left to right, top row to bottom row), or return the grid (copied from this newsletter or the web) filled in **clearly** by fax, attention Public Awareness Office at 401-331-3842. Please include your full name.

The deadline for entries is **December 1, 2006**. Ten correct solutions will be drawn at random and those selected will be awarded 25 AMS Points.

Read more For information on how AMS Points can be used, see www.ams.org/customers/macsfq.html#points.

New Mathematical Moments



Recent additions to the *Mathematical Moments* series include Predicting Storm Surge, Solving Crimes, Boarding Faster, Boldly Going, and selections translated into Spanish, French, German, Portuguese, Japanese, Chinese, and Russian.

Read more See all 56 *Mathematical Moments* at www.ams.org/mathmoments.

NSF Appoints Tony Chan and Peter March



The National Science Foundation (NSF) has named **Tony Chan**, Dean of Physical Sciences at the University of California at Los Angeles, to be Assistant Director for Mathematical and Physical Sciences at NSF. Chan will guide and manage approximately US\$1 billion in funding for research in

mathematics, astronomy, physics, chemistry, materials science, and multidisciplinary activities. “We are delighted that NSF can benefit from Tony’s extraordinary record as a scientist and an administrator, especially at this critical time in the history of mathematics and physical sciences,” said NSF Director Arden L. Bement, Jr. Chan’s current research interests focus mainly on interdisciplinary mathematics in such fields as image processing and computer vision, multiscale computational methods, optimization and multilevel methods for electronics design, and computational geometry for brain mapping.

Peter March, chair of the mathematics department at the Ohio State University, has been named director of the Division of Mathematical Sciences (DMS), effective September 1. He succeeds William Rundell, who served in that position since 2002. March’s research interests center on probability theory



and its applications. “DMS invests in discovery—of new ideas, new methods, and new techniques,” March said. “In this respect DMS plays a crucial, perhaps unique, role in the national mathematical sciences community. Ours is a vital discipline possessed of a deep internal unity and wide-ranging

connections to science, engineering, and technology—connections that have broad impact on society. As incoming division director, I see supporting the discovery of new ideas, the development of new connections and the cultivation of a rich, diverse mathematical sciences community as an exciting challenge.”

Read more Chan’s interview in the October 2006 issue of *Notices of the AMS* is at www.ams.org/notices/200609/conm.chan.pdf (p. 1058); see the NSF’s Directorate for Mathematical & Physical Sciences at www.nsf.gov/dir/index.jsp?org=MPS and the Division of Mathematical Sciences at www.nsf.gov/div/index.jsp?div=DMS.

Mathematical Imagery—A New Resource on the AMS Website

Mathematicians and artists create stunning works in all media and explore the visualization of mathematics—origami, computer-generated landscapes, tessellations, fractals, anamorphic art, and more. The web page includes images that can be sent as e-postcards, and links to online Galleries & Museums and Articles & Resources.

MATHEMATICAL IMAGERY

Explore the world of mathematics and art, send an e-postcard, and bookmark this page to see new featured works.

www.ams.org/mathimagery

Read more Explore the world of mathematics and art, send an e-postcard, and bookmark this page to see new featured works, at www.ams.org/mathimagery/.

Math in the Media



Newspapers and journals are doing a better job at covering mathematics and mathematicians: Articles on prizewinners, the portrayal of mathematicians on television, the mathematics behind the patterns on animal coats, high school math prodigies, math education, encryption, data-mining at the NSA, the shape of soccer balls, medical applications, sabermetrics, the US\$1 million Millennium Problems, women in math, quantum computing, mathematical art exhibits, book reviews.

Read more The AMS’s *Math in the Media* summarizes math news as reported in newspapers and general science magazines. See the monthly magazine, including Tony Phillips’ *Take on Math in the Media*, *Math Digest*, and *Reviews of books, plays, and films with mathematical themes*, at www.ams.org/mathmedia.

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AMS MEMBER NEWSLETTER



Raffle for New Orleans Recovery

All participants at the Joint Mathematics Meetings in New Orleans (January 5–8) are invited to take part in a special raffle with the proceeds going to several charities in New Orleans to help with the recovery efforts from Katrina. Participants in the random drawing will have a chance to win a MacKichan software package (over \$800 value), a TI-89 Titanium graphing calculator (\$150 value), Bose headsets (\$150 value), an Apple iPod with video (\$300 value), four free nights at the San Diego Marriott Hotel & Marina for the 2008 Joint Mathematics meetings (over \$500 value), a New England Legal Seafood Lobster Bake (\$300 value), AMS Bookstore credit (\$300), or MAA Bookstore credit (\$300).

Participants can also purchase a special New Orleans Joint Meetings t-shirt and the proceeds will go to the same charities.

Look for the raffle on the second floor of the Marriott Hotel. For more information and a listing of all the prizes and the charities, see www.ams.org/amsmtgs/2098_faq.html.