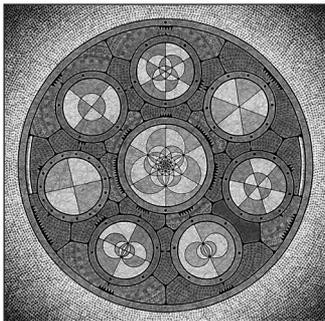
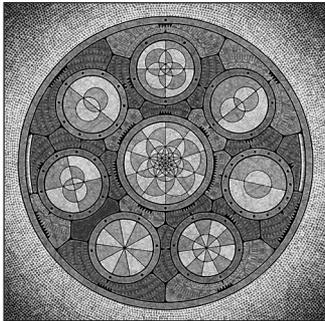


Inside the AMS

2014 Mathematical Art Exhibition Awards

The 2014 Mathematical Art Exhibition Awards were made at the Joint Mathematics Meetings in Baltimore, Maryland, in January “for aesthetically pleasing works that combine mathematics and art.” The works were selected from the exhibition of juried works in various media by eighty-six mathematicians and artists from around the world.

“Enigmatic Plan of Inclusion I & II” by Conan Chadbourne was awarded Best Photograph, Painting, or Print. “My work is motivated by a fascination with the occurrence of mathematical and scientific imagery in traditional art



Enigmatic Plan of Inclusion I & II

forms,” states Chadbourne in the exhibition catalog. The 24" × 24" archival inkjet prints “are investigations of the subgroup structure of the icosahedral group (A5). At the center of each image is a graphical representation of A5, as formed by orientation-preserving pairs of reflections in circles and lines in the plane. This is surrounded by similar graphical representations of the seven conjugacy classes of (proper, nontrivial) subgroups of A5, with the trivial group depicted as the space outside of the large circular frame. The interstices between the group images indicate the relationships of inclusion between the different groups, with colors being used to distinguish maximal subgroup relationships and small graphical markers used to indicate the particular numbers of conjugates involved in each relationship.”

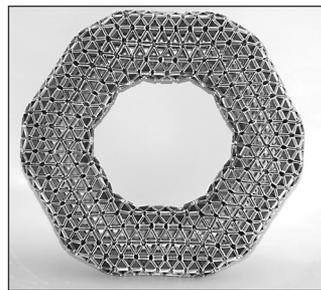
“Three-Fold Development” by Robert Fathauer was awarded Best Textile, Sculpture, or Other Medium. “I’m endlessly fascinated by certain aspects of our world, including symmetry, chaos, and infinity. Mathematics allows me to explore these topics in distinctive artworks that I feel are an intriguing blend of complexity and beauty,” says Fathauer, a small business owner, puzzle designer, author, and artist. “This 13" × 13" × 13" ceramic sculpture is based on the first five generations of a fractal curve. The



Three-Fold Development

starting point is a circle, and the first iteration produces a three-lobed form. With each iteration, the number of lobes is tripled. The spacing between features is essentially constant throughout a layer, while the threefold symmetric boundary of the curve becomes increasingly complex. A hexagonal version of this curve is found in Benoît Mandelbrot’s book *The Fractal Geometry of Nature*. This hyperbolic surface is reminiscent of naturally occurring corals. It was inspired in part by a 3-D-printed model created by Henry Segerman.”

“Blue Torus” by Faye E. Goldman received Honorable Mention. “I have been doing origami since elementary school,” says Goldman. “I



Blue Torus

was drawn to modular origami by its structure and mathematical properties. The Snapology technique by H. Strobl...has allowed me to dig deeply into the regularity of mathematical shapes finding insight. It has provided insights into mathematical ideas. This 10" × 10" × 2.5" toroid shape is made from over 2,400 strips of ribbon. It was the first nonconvex shape I’ve made. I love the fact that there need to be as many heptagons making the negative curvature in the center as there are pentagons around the outside.”

The Mathematical Art Exhibition Award was established in 2008 through an endowment provided to the AMS by an anonymous donor who wished to acknowledge those whose works demonstrate the beauty and elegance of mathematics expressed in a visual art form. The awards carry cash prizes of US\$400 for Best Photograph, Painting, or Print; US\$400 for Best Textile, Sculpture, or Other Medium; and US\$200 for Honorable Mention. The Mathematical Art Exhibition of juried works in various media is held at the annual Joint Mathematics Meetings of the American Mathematical Society (AMS) and Mathematical Association of America (MAA).

—Mike Breen and Annette Emerson
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UNIVERSITY
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2014 CMS Summer Meeting

Delta Winnipeg
(Winnipeg Manitoba)
June 6 – 9, 2014

Scientific Directors:

Nina Zorboska, Stephen Kirkland (Manitoba)



PRIZE LECTURES

CMS Coxeter-James Prize
CMS Excellence in Teaching Award
CMS Krieger-Nelson Prize Lecture
David Borwein Distinguished Career Award

PUBLIC LECTURES

Barbara Keyfitz (Ohio State)

PLENARY LECTURES

Thomas Ransford (Laval)
Bela Bollobas (Cambridge, Memphis)
James Maynard (Montreal)
Mark Lewis (Alberta)

EDUCATION PLENARY LECTURE

John Mighton (Fields)

HIGHLIGHTS

AARMS-CMS Student Poster Session
Education Sessions
Math Art Exhibit
Contributed Papers
A number of Scientific Sessions

Please see our website for details:
www.cms.math.ca/events/summer14

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Inside the AMS

From the AMS Public Awareness Office

2014 Joint Mathematics Meetings. The Joint Mathematics Meetings in Baltimore drew nearly 6,500 participants. If you attended, we hope you enjoyed the scientific program, exhibits, and making connections with old and new friends. The JMM blog, written by Adriana Salerno, Anna Haesch, and Tyler Clark, is a great place to find out about some of the invited addresses, prizes, sessions, and events and to comment on the blog posts or sessions. Topics include Colin Adams and the Mobius Banaid Players, Jill Pipher's talk on lattice-based cryptography, AMS Special Session on Analytic Number Theory, mathematical poetry, the Young Mathematicians Network/Project NExT Poster session, The Public Face of Mathematics panel, prizes and awards, and more. See <http://blogs.ams.org/jmm2014/>. Those on Twitter can find @JointMath tweets and lots of conversations about the meetings by searching hashtag #JMM14.

Vivek Miglani, pictured with AMS President David Vogan, won the 2014 national *Who Wants to Be a Mathematician* contest held at the



Joint Meetings. Vivek, a junior at Marjory Stoneman Douglas High School in Florida, earned US\$5,000 for himself and US\$5,000 for the mathematics department at his school. Read more about the contest at <http://www.ams.org/programs/students/wwtbam/jmm2014>. (Photo by Sandy Huffaker)

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Deaths of AMS Members

ADELINA GEORGESCU, of Bucharest, Romania, died on May 1, 2010. Born on April 25, 1942, she was a member of the Society for 29 years.

OSCAR E. LANFORD III, of Zurich, Switzerland, died on November 16, 2013. Born on January 6, 1940, he was a member of the Society for 35 years.

PAUL J. SALLY JR., professor, University of Chicago, died on December 29, 2013. Born on January 29, 1933, he was a member of the Society for 57 years.

L. A. SHEPP, professor, Rutgers University, died on April 23, 2013. Born on September 9, 1936, he was a member of the Society for 54 years.