Inside the AMS

AMS Congressional Fellow Announced

Margaret D. Callahan

MARGARET D. CALLAHAN has been awarded the 2017–2018 AMS Congressional Fellowship. Callahan is currently a visiting assistant professor at Emory University teaching linear algebra and a volunteer with Emory Math Circle, a free mathematics enrichment program for local middle and high school students. She received her PhD in applied mathematics from Case Western Reserve University.

Callahan is interested in STEM education and public health policy and has served in rural Kenya as a secondary school mathematics teacher with the US Peace Corps (USPC). She was elected a Math and Science Education Sector Representative to the Voluntary Advisory Council of the USPC working in support of corps volunteers.

The Congressional Fellowship program is administered by the American Association for the Advancement of Science (AAAS) and provides an opportunity for scientists and engineers to learn about federal policymaking while contributing their knowledge and analytical skills to the process. Fellows spend a year on the staff of a member of Congress or a congressional committee working as a special legislative assistant in legislative and policy areas requiring scientific and technical input. The fellowship program includes an orientation on congressional and executive branch operations and a year-long professional development program.

The fellowship is designed to provide a unique public policy learning experience to demonstrate the value of science-government interaction and to bring a technical background and external perspective to the decision-making process in Congress.

For more information on the AMS-AAAS Congressional Fellowship, go to `bit.ly/AMSCongressionalFellowship`.

—Anita Benjamin, AMS Washington Office

AMS-AAAS Mass Media Fellow Chosen

Benjamin Thompson

BENJAMIN THOMPSON of Boston University has been awarded the 2017 AMS-AAAS Mass Media Fellowship. He is a mathematics PhD student studying algebraic geometry. He will work this summer at Voice of America.

The AAAS Mass Media Science and Engineering Fellows program is organized by the American Association for the Advancement of Science (AAAS). This competitive program is designed to improve public understanding of science and technology by placing advanced undergraduate, graduate, and postgraduate science, mathematics, and engineering students in media outlets nationwide. The fellows work for ten weeks over the summer as reporters, researchers, and production assistants alongside media professionals to sharpen their communication skills and increase their understanding of the editorial process by which events and ideas become news.

In its forty-third year, this fellowship program has placed more than 670 fellows in media organizations nationwide as they research, write, and report today's headlines. The program is designed to report science-related issues in the media in easy-to-understand ways so as to improve public understanding and appreciation for science and technology.

For more information on the AAAS Mass Media Science and Engineering Fellows program, visit the website `www.aaas.org/mmfellowship`.

—Anita Benjamin, AMS Washington Office

Capitol Hill Exhibit Highlights Food and Water Security

Lea Jenkins (left) chats with attendees at the 2017 CNSF Exhibition and Reception.

The AMS sponsored an exhibit at the twenty-third annual Coalition for National Science Funding (CNSF) Exhibition and Reception on Capitol Hill held on May 16, 2017. Lea Jenkins, Clemson University, made a presentation entitled "Berry Smart: Mathematics for Food and Water Security," describing her team's work on minimizing water usage.

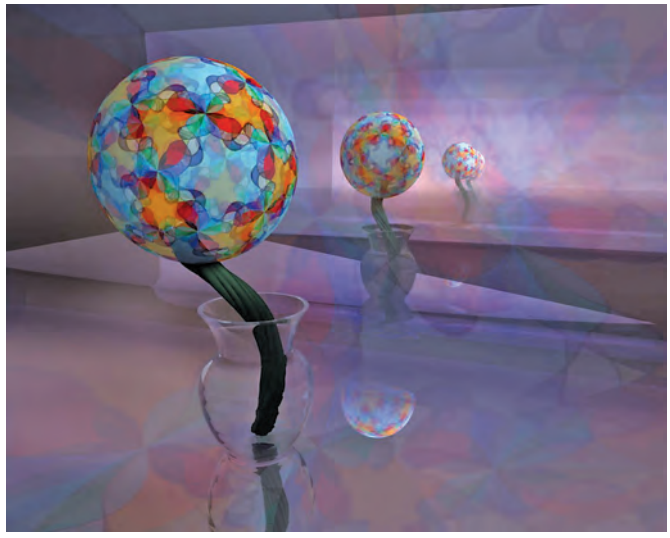
This team of researchers, sponsored by the American Institute of Mathematics and supported by the National Science Foundation, includes Lea Jenkins (Clemson University) and Kathleen Fowler Kavanagh (Clarkson University), as well as hydrologists, farmers, and other stakeholders. The team was interested in designing a plan that would minimize water usage for crops yet still make a profit for the farmers and also meet consumer demand. The mathematical models created incorporate data such as plant growth properties and water requirements of different crops to identify which crops to plant, the best time to plant the selected crops, and which areas to leave unplanted.

These models could apply broadly to farms of varying size. Next steps in the research will introduce more complexity and different farming scenarios into the problem, including simulating multifarm agricultural environments, evaluating the impact of changes in irrigation practices, and irrigation sources.

For more information on this research, see the AMS Mathematical Moments and listen to the podcast at `www.ams.org/samplings/mathmoments/mm128-farming-podcast`.

The Coalition for National Science Funding is an alliance of over 140 organizations united by a concern for the future vitality of the national science, mathematics, and engineering enterprise. The CNSF Exhibition is a well-attended annual event that features over thirty exhibits where researchers present their work and explain the critical importance of increased, sustained federal investments in basic scientific research.

—AMS Washington Office



"Icosahedral Lampflower," by Frank A. Farris, Santa Clara University, CA

From the AMS Public Awareness Office

New Works on Mathematical Imagery: See an album of selected works in the 2017 Mathematical Art Exhibition held at JMM 2017 and additional digital works by Frank A. Farris, Santa Clara University, California.
`www.ams.org/mathimagery`

AMS for Students: Undergraduate and high school students and faculty in the mathematical sciences are invited to browse this page for regularly posted news and resources, including links to video collections, semester programs, graduate programs, competitions and awards, where to publish and present research, where to get free math help, and more. `www.ams.org/students`

Opportunities: This online resource allows organizations and institutions to submit calls for applications for fellowships, grants, and scholarships; nominations for prizes and awards; proposals for meetings and workshops; and information about contests and competitions. Calls may be designated by "audience": mathematical scientists/faculty, institutions and programs, postdocs/early-career mathematicians, graduate students, undergraduate students, and high school students and teachers.
`www.ams.org/opportunities`

—Annette Emerson and Mike Breen
AMS Public Awareness Officers
paoffice@ams.org