

Inside the AMS

Congressional Briefing Highlights Cryptography



Dr. Shafi Goldwasser

The American Mathematical Society (AMS) cosponsored a congressional briefing with the Mathematical Sciences Research Institute (MSRI) on December 6, 2017, in Washington, DC. The briefing presenter was Dr. Shafi Goldwasser, the RSA Professor of Electrical Engineering and Computer Science at MIT. Dr. Goldwasser took up a new post on January 1, 2018, as director of the Simons Institute for the Theory of Computing at the University of California Berkeley. The briefing, titled “Cryptography: How to Enable Privacy in a Data-Driven World,” was held for members of Congress and their staff at the US Capitol. The Simons Institute made a film of Dr. Goldwasser’s experience with Congress, which can be viewed at bit.ly/2GBaL5y.

Dr. Goldwasser’s pioneering work in the field of cryptography examines how we share and receive information. In the last forty years, cryptography has shown how to use basic mathematics to enable secure electronic commerce. The enormous amount of data currently collected offers great opportunities to achieve medical breakthroughs, smart infrastructure, economic growth through consumer targeting, and surveillance for national security. This data collection, however, seems to stand in contradiction to patients’ rights, consumers’ privacy, unfair pricing, and the “Basic Right to be Left Alone.” The question is, can mathematics and technology make it possible to maintain

privacy and make progress at the same time? Dr. Goldwasser’s presentation addressed how modern encryption methods, zero-knowledge proofs, and multi-party secure computation go a long way to get the best of both worlds.

House Minority Leader Nancy Pelosi and Representatives Jerry McNerney (CA) and Daniel Lipinski (IL) were on hand to give remarks and provide their support for the mathematical sciences and federal funding of basic scientific research.

In years past, the AMS has hosted an annual congressional briefing as a means to communicate information to policymakers. Speakers discuss the importance of mathematics research and present their work to Congressional staff as a way to inform members of Congress on how mathematics impacts today’s important issues. In 2017, the AMS joined forces with MSRI to offer Congressional briefings twice per year.

—AMS Office of Government Relations

AMS Holds Department Chairs Workshop

The AMS holds an annual Department Chairs Workshop just prior to the Joint Mathematics Meetings. This year’s workshop was held on January 9, 2018, in San Diego, California. More than forty-five department leaders from across the country participated in the workshop, which focused this year on improving students’ experience; building effective internal and external partnerships; and responsibilities, duties and expectations that deans, provosts, and other chief academic officers have for their department chairs.

The workshop was led by Malcolm Adams, University of Georgia; Krista Maxson, University for Science and Arts of Oklahoma; Irina Mitrea, Temple University; and Douglas Mupasiri, University of Northern Iowa.

The workshop format helps to stimulate discussion and allows the sharing of ideas and experiences, creating an environment that enables attending chairs to address departmental matters from new perspectives.

The next AMS Department Chairs Workshop will be held January 15, 2019, in Baltimore, Maryland. Information on next year’s workshop will be sent to department chairs via email and published in the *Notices* in the fall.

—AMS Office of Government Relations

The image shows a smartphone displaying the "News for AMS Members" e-newsletter. The screen has a white background with a dark orange header bar at the top. In the top left corner of the screen, the American Mathematical Society (AMS) logo is displayed, consisting of a stylized "A" made of dots and the text "AMERICAN MATHEMATICAL SOCIETY". To the right of the logo, the text "Headlines & Deadlines" and "News for AMS Members" are written in blue. Below this, a message reads: "Stay up to date on important news & deadlines from the profession!". Further down, it says: "The Headlines & Deadlines e-newsletter is sent twice a month to your preferred email address." At the bottom of the screen, there is a blue button labeled "Subscribe" and a yellow envelope icon with a checkmark, indicating an email sign-up form.

From the AMS Public Awareness Office

Recent Feature Columns

See some recent AMS Feature Columns—including “Jakob Bernoulli’s Zoo” by Bill Casselman, “How to Differentiate with a Computer” by David Austin (see illustration),

“Regular-Faced Polyhedra: Remembering Norman Johnson” by Joe Malkevitch, and “The Early History of Calculus Problems, II” by Tony Phillips—and access others at www.ams.org/publicoutreach/feature-column/fc-browse.

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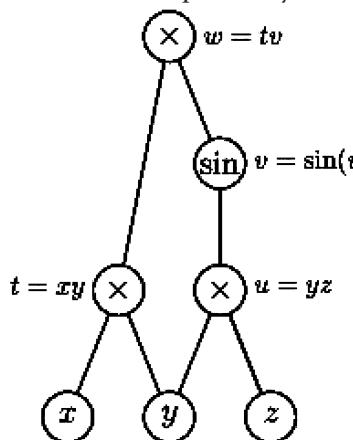


Image Credits

Photo of Dr. Shafi Goldwasser courtesy of Allison O'Brien Photography.

"How to Differentiate with a Computer" illustration courtesy of David Austin.