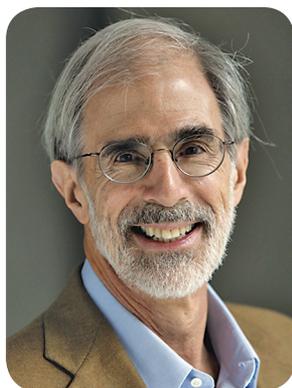


2020 Award for Distinguished Public Service



David Eisenbud was awarded the 2020 Award for Distinguished Public Service at the 126th Annual Meeting of the AMS in Denver, Colorado, in January 2020.



David Eisenbud

Citation

The 2020 AMS Award for Distinguished Public Service is presented to David Eisenbud, Professor of Mathematics at the University of California Berkeley and Director of the Mathematical Sciences Research Institute (MSRI) in Berkeley, California, for his exceptional leadership and outreach efforts while Director of MSRI, President of the AMS, and Director for Mathematical and Physical

Sciences at the Simons Foundation. As the long-time Director of MSRI, he has been instrumental in fostering or creating programs to enhance the public understanding of mathematics—for example, the Numberphile YouTube channel and podcast, the Mathical Book Prize, the National Math Circles Library, the Celebration of Mind events, the National Math Festival, and the initiation of the National Math Circles organization. He also brought a large and broad nonacademic community of enthusiastic supporters to the Institute. As President of the AMS, he was an enthusiastic proponent of new outreach efforts, advocating for the Mathematical Research Communities program, as well as creating and sustaining the Current Events Bulletin sessions at the Joint Mathematics Meetings. As the first Director of Math and Physical Sciences at the Simons Foundation, he was instrumental in forging policies that now provide significant and novel nongovernmental support for the mathematical and physical sciences.

As a research mathematician, Eisenbud's work is centered in commutative algebra and algebraic geometry. He has advised more than thirty doctoral students, including thirteen since first becoming Director of MSRI. His book *Commutative Algebra: With a View Toward Algebraic Geometry* was honored with a Leroy P. Steele Prize for Mathematical Exposition in 2010.

In each of these roles, David Eisenbud has gone far beyond the ordinary as an exuberant advocate for the mathematical sciences. He has changed the way others think about our subject and changed aspects of the mathematics profession itself. His exceptional service will affect mathematics for years to come.

Biographical Sketch

David Eisenbud served as director of MSRI from 1997 to 2007 and began a new term in 2013.

He received his PhD in mathematics in 1970 at the University of Chicago under Saunders Mac Lane and Chris Robson and was on the faculty at Brandeis University before coming to Berkeley, where he became professor of mathematics in 1997. He served from 2009 to 2011 as director for Mathematics and the Physical Sciences at the Simons Foundation and is currently on the Board of Directors of the Foundation. He has been a visiting professor at Harvard, Bonn, and Paris. Eisenbud's mathematical interests range widely over commutative and noncommutative algebra, algebraic geometry, topology, and computer methods.

Eisenbud is chair of the editorial board of the journal *Algebra and Number Theory*, which he helped found in 2006, and serves on the board of the *Journal of Software for Algebra and Geometry*, as well as Springer Nature's book series Algorithms and Computation in Mathematics.

Eisenbud was president of the American Mathematical Society from 2003 to 2004. He is a director of Math for America, a foundation devoted to improving mathematics teaching. He has been a member of the Board of Mathematical Sciences and their Applications of the National Research Council and is a member of the US National Committee of the International Mathematical Union. In 2006, Eisenbud was elected a Fellow of the American Academy of Arts and Sciences.

Eisenbud's interests outside of mathematics include theater, music, and juggling. He is coauthor of a paper on the mathematics of juggling. He plays the flute and sings Bach, Brahms, Schubert, Schumann... .

Response from David Eisenbud

I am very pleased by this recognition from the AMS for the work that I have had the good luck to be able to do on behalf of the mathematics community and of the public's appreciation of the power, beauty, and fun of mathematics!

Looking back, it seems to me that the mentoring I received played a great role both in my enthusiasm for this sort of work and for enabling me to take on the positions—principally at the AMS, at the Simons Foundation, and at MSRI—that have put me in a position to act on behalf of the community.

This began in graduate school: among my mentors were Irving Kaplansky and Saunders Mac Lane. Kap (as everyone not a student called Kaplansky) was a great advocate for engagement with the AMS: I remember him telling me and other students that we must join the AMS, because...it was "our union"! He was also a president of the AMS and was the second director of MSRI—I first visited during his directorship. Mac Lane was a model in a different way. I was very much aware, already during my graduate student time, of the service he gave to the National Academy of Sciences (and he, too, had been president of the AMS). We became personally close, and his example in these matters was quite important to me.

After graduate school I went to Brandeis University as a postdoc and wound up staying there twenty-seven years. David Buchsbaum's presence was what drew me. The university was small and relatively new, and he was deeply involved and caring about both department and university politics. Happily for me, we not only collaborated mathematically, but he regularly shared his insights and his stories with me—a kind of mentoring that I think very few junior faculty receive.

Finally, when I came to be director of MSRI, Elwyn Berkamp took me under his wing and spent countless hours telling me tales from his wide experience and introducing me to his friends. Elwyn, whose father had been a minister, was also focused on the idea of service. Although Elwyn and Bill Thurston, my predecessor as director, had strong differences, Elwyn very much appreciated and pushed forward Bill's ideas of public engagement and of broadly cultivating talent, and Elwyn strongly encouraged me in these directions.

Among other contacts he made for me was with his old friend and former partner, Jim Simons (remade, really, since I first knew Jim through my parents!). Elwyn and I convinced Jim to join the MSRI Board, where he has had a great impact. Jim and I liked each other, and that was ultimately the path that led to my work at the Simons Foundation.

Another person who has played a major role on the MSRI Board in recent years is Roger Strauch. Experienced in many areas of engineering and business and eager to help mathematicians make their way in the world, he, too, has been a great friend and teacher.

These mentors in public service (and of course others, also in research) have played an enormous role in my life, one whose magnitude and coherence I only recently came to appreciate. I'm grateful for this chance to reflect on my path, and express my indebtedness to all of them. I can only wish such good fortune for others.

About the Prize

Presented every two years, the AMS Award for Distinguished Public Service recognizes a research mathematician who has made recent or sustained distinguished contributions to the mathematics profession through public service. The prize carries a cash award of US\$4,000.

The AMS Council established this award in response to a recommendation from its Committee on Science Policy. The members of the committee to select the winner of the Award for Distinguished Public Service for 2020 were:

- John H. Ewing
- Richard M. Hain
- Ronald John Stern (Chair)
- David A. Vogan, Jr.

A list of the past recipients of the Award for Distinguished Public Service can be found at https://www.ams.org/prizes-awards/pabrowse.cgi?parent_id=6.

Credits

Photo of David Eisenbud is courtesy of David Eisenbud.