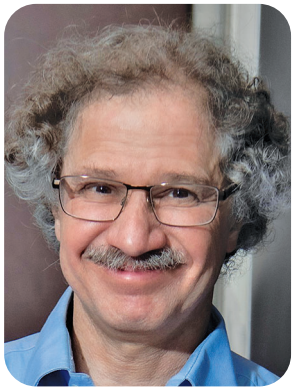
2021 Award for Impact on the Teaching and Learning of Mathematics

Solomon Friedberg of Boston College has been selected as the recipient of the 2021 AMS Award for Impact on the Teaching and Learning of Mathematics.


Solomon Friedberg

Citation

The 2021 AMS Award for Impact on the Teaching and Learning of Mathematics has been awarded to Solomon Friedberg of Boston College, where he is the James P. McIntyre Professor of Mathematics. He is honored for his many significant contributions to mathematics education locally, nationally, and internationally.

In addition to his exemplary research record, Dr. Friedberg devotes an immense amount of time and energy to mathematics education and has been a strong advocate for improving K–12 mathematics education for several decades. His numerous and significant contributions include serving on review boards for evaluating mathematics education at the local and national levels, serving on editorial boards related to mathematics education, writing blogs, opinion pieces, and essays, all with the goal of improving teaching and learning for all students. Dr. Friedberg is committed to launching and supporting programs that encourage partnerships with universities and local schools. For example, he partnered with Boston College's School of Education to start the successful Boston College Colloquium in Mathematics Education, a colloquium series for math educators, administrators, and mathematicians interested in K–12 education. As written in a letter of support for Dr. Friedberg, "This series is an invaluable support to mathematics educators in the Boston area, and is a strong model for other institutions who want to build local communities of PK–12 and university mathematics educators and mathematicians."

Dr. Friedberg's service at the national and international levels includes his current service as the Chair of the National Academy of Science's U.S. National Commission on Mathematics Instruction (USNC/MI). He was the driving force behind the timely USNC/MI webinar, "Moving Forward in the Midst of a Pandemic: International Lessons for Math Teachers" in summer 2020. In addition, he led projects that focus on improving and disseminating teaching and learning techniques, with funding from the Calculus Consortium of Higher Education, the US Department of Education, and the National Science Foundation. He is the co-PI for a new project to advance inclusion and equity in math education, funded by the NSF grant "Developing Exemplary Mathematics Teacher Leaders for High-Need Schools: Content, Equity, and Leadership," which builds on his NSF-funded project "Exemplary Mathematics Educators for High-Need Schools." These projects emphasize mathematical content and teacher leadership development and, at the same time, promote equity and inclusion.

For his many impactful and broad contributions to mathematics education, the AMS Committee on Education is delighted to award Dr. Solomon Friedberg the 2021 AMS Award for Impact on the Teaching and Learning of Mathematics.

Biographical Sketch

Solomon Friedberg earned his BA from the University of California, San Diego, and his MS and PhD from the University of Chicago. His PhD advisor was Harold Stark. He was a Benjamin Peirce Lecturer at Harvard University from 1982 to 1985, then joined the faculty of the University of California, Santa Cruz, where he held positions as assistant,

associate, and full professor. He has been on the faculty of Boston College since 1996.

Dr. Friedberg's research foci are number theory and representation theory, and he has worked extensively on the study of Langlands *L*-functions and on multiple Dirichlet series, an area that he helped to found. His passion for research has always been complemented by a deep interest in teaching and learning. While at UCSC, he was involved in the Monterey Bay Area Math Project. In the 1990s at Boston College, Dr. Friedberg organized a project to develop new training materials—Case Studies—for use in teaching assistant development programs for mathematics graduate students, and from 2016 to 2020 he served as Chair of the AMS–MAA Joint Committee on TAs and Part-Time Instructors. His involvement with K–12 math education, detailed in the award citation, has been extensive. In addition, Dr. Friedberg was Chair of the Department of Mathematics at Boston College for nine years, from June 2007 through May 2016. Under his leadership, the department started a PhD program, instituted a new BS degree, hired superb new scholars, and dramatically increased its external research support.

Dr. Friedberg has received an NSF Postdoctoral Fellowship, a NATO Postdoctoral Fellowship in Science, an Indo-American Fellowship, a Sloan Fellowship, a Simons Fellowship, and the MAA Northeastern Section Award for Distinguished College or University Teaching. He was also Distinguished Visiting Professor of Mathematics at Brown University in spring 2002 and Distinguished Ordway Visitor at the University of Minnesota in 2014. He is a Fellow of the AMS.

Response from Solomon Friedberg

I am profoundly grateful to the AMS and its Committee on Education for selecting me for this award. I've learned a great deal about teaching and learning from many people, from mentors to colleagues to students, and I'd like to thank them all. I've also been fortunate to encounter people who have thought about teaching and learning from many different perspectives—mathematicians, math educators, scientists, social scientists, policy specialists, teachers—and this diversity of views has added greatly to my understanding. Thank you all. Many of my efforts in both research and education have been joint, and I am pleased to express my deep appreciation to my collaborators for their efforts and inspiration. Finally, I'd like to express my sincere gratitude to Ken and Mary Lou Gross for establishing this award. It means a lot to the profession and a lot to me personally.

About the Award

The Award for Impact on the Teaching and Learning of Mathematics was established by the AMS Committee on Education (COE) in 2013. The award is given annually to a mathematician (or group of mathematicians) who has made significant contributions of lasting value to mathematics education. Priorities of the award include recognition of (a) accomplished mathematicians who have worked directly with precollege teachers to enhance teachers' impact on mathematics achievement for all students, or (b) sustainable and replicable contributions by mathematicians to improve the mathematics education of students in the first two years of college. The US$1,000 award is given annually, and the recipient is selected by the COE. The endowment fund that supports the award was established in 2012 by a contribution from Kenneth I. and Mary Lou Gross in honor of their daughters Laura and Karen. The award is presented by the AMS COE acting on the recommendation of a selection subcommittee. For the 2021 award, the members of the subcommittee were:

- Susan Loepp
- Megan Kerr
- Maggy Tomova
- Katherine M. Kinnaird

A listing of the previous recipients of the Impact Award can be found on the AMS website at: `www.ams.org/profession/prizes-awards/ams-awards/impact`.

Credits

Photo of Solomon Friedberg is courtesy of Lee Pellegrini, Boston College.