



# Award for Distinguished Public Service

The Award for Distinguished Public Service was established by the AMS Council in response to a recommendation from their Committee on Science Policy. The award is presented every two years to a research mathematician who has made recent or sustained contributions through public service.



Rodrigo Bañuelos

## Citation

### Rodrigo Bañuelos

The 2022 AMS Award for Distinguished Public Service is presented to Rodrigo Bañuelos, professor of mathematics at Purdue University, in recognition of his exceptional service to the profession, his extensive educational and professional mentoring, and his prolific activities that have advanced diversity, equity, and inclusion at all levels of the mathematical sciences community.

His service to the profession goes well beyond that expected of a research mathematician. In addition to his tenure as head of the Purdue University Department of Mathematics, he has served on many boards and committees of national importance, including at the Institute for Pure and Applied Mathematics (IPAM), the Mathematical Sciences Research Institute (MSRI), the National Science Foundation (NSF), and the Simons Foundation. He also has been an influential member of many AMS committees. In all of these capacities, he has been a tireless, unwavering, and fervent advocate for mathematicians from historically underrepresented groups. As an influential faculty member at Purdue, he has helped recruit a large number of underrepresented faculty to that prestigious institution.

Dr. Bañuelos's career combines exceptional service with an internationally recognized research program at the interface of probability, harmonic analysis, and spectral theory. Embodying the consummate professor, he has more than 100 research publications, has advised 12 PhD students and several postdocs who have gone on to successful careers of their own, remains a popular teacher and mentor

to students at all levels of mathematics, and has served as a mentor to many young faculty at Purdue and at other institutions in the country.

For these activities and accomplishments, he has been recognized with numerous honors such as the 2004 Blackwell-Tapia Prize and election as a Fellow of the American Mathematical Society, the Institute of Mathematical Statistics, and the Association for Women in Mathematics. He has delivered many distinguished lectures at national and international meetings such as the 2013 Waldemar Trjitzinsky Memorial Lectures, the 2019 MAA-SIAM-AMS Hrabowski-Gates-Tapia-McBay Lecture, and the 2021 MAA Earle Raymond Hedrick Lectures.

It should be noted that Dr. Bañuelos built this extraordinary career after beginning his formal education when his family moved from Zacatecas, Mexico to southern California at the age of 15. His academic trajectory began while working at a car wash in Pasadena, CA, when he had a chance encounter with a faculty member from Pasadena City College (PCC). This faculty member recognized Dr. Bañuelos's potential and encouraged him to take his courses in Chicano Studies at PCC. From there he transferred to UC Santa Cruz, and eventually, obtained his PhD in mathematics from the University of California, Los Angeles.

## Biographical Note

Rodrigo Bañuelos was born in a small rural community in the state of Zacatecas, Mexico, to a Mexican American father and a Mexican mother. When he was 15, his family moved to Pasadena, California. After a year and two summers at Pasadena City College, he transferred to UC Santa Cruz, where he received his bachelor's degree in 1978. He received a master's degree in mathematics education with a California high school teaching credential from UC Davis in 1980. After earning a PhD from UCLA in 1984, he was

a Bantrell Research Fellow at Caltech and an NSF Postdoctoral Fellow at the University of Illinois, Urbana-Champaign. In 1987 he moved to Purdue, receiving the NSF's Presidential Young Investigator Award two years later. His research interests are in probability and its applications to harmonic analysis, partial differential equations, and spectral theory.

Bañuelos has served on the editorial boards of many journals and was the second recipient of the Blackwell–Tapia Prize. He is a Fellow of the American Mathematical Society, the Institute of Mathematical Statistics, and the Association for Women in Mathematics. In 2018, he received Purdue's Martin Luther King Jr. Dreamer Award.

### Response from Rodrigo Bañuelos

I am deeply honored to be the 2022 recipient of the Award for Distinguished Public Service. Reflecting on the meaning of service and mentoring, I cannot help but think back to my years (mid-1970s) as a student at Pasadena City College (PCC) and UC Santa Cruz (UCSC), and to my first mentors, without whom it is unlikely I would have a college degree, much less a career in mathematics.

I learned Chicano history from Dr. Juan Francisco Lara while he was a graduate student at UCLA with a part-time teaching job at PCC. Lara's courses at PCC helped me understand the historical roots behind the terms Chicano/Chicana/Chicanx and the pride in them. His support and encouragement led me to believe that I could get a college degree, my poor preparation at that time notwithstanding.

Shortly after I transferred (with Lara's help) from PCC to UCSC in 1974, I met Professors Eugene Cota-Robles and Frank Talamantes. In addition to their stellar careers as biologists, they both played important roles in the higher administration at UCSC and the wider University of California system. Throughout their careers they worked tirelessly to create opportunities and open doors for young people.

The mentorship of Lara, Talamantes, Cota-Robles, and Professor Richard Tapia of Rice University had a tremendous influence on the way I think of my responsibilities as an academic beyond teaching in the classroom and research in my field. In my own way, I have tried to follow their example and to devote time and energy to encouraging young people to develop their talents and interests, regardless of where they are in the infinite spectrum of mathematical engagement.

Mathematically, I did not pull myself up by my bootstraps. In fact, metaphorically speaking, I had no boots, let alone bootstraps to pull. From my student days at Santa Cruz—where Professor Edward Landesman was the first person to tell me “you're good at math”—to my position as faculty member at Purdue, I have had the great fortune to receive the support and encouragement of many wonderful mathematicians. Their wise counsel led to

opportunities to grow mathematically. This, in turn, provided wider visibility and allowed me to be at the table with people of influence for critical conversations about the underrepresentation of those who have historically been excluded from our profession. It is heartening to think that my efforts might have made an epsilon difference.

I am humbled to receive this award, and I thank the AMS and the selection committee for this recognition.

### Credits

Photo of Rodrigo Bañuelos is courtesy of Rodrigo Bañuelos.