

Joint Policy Board for Mathematics Communications Award



The Joint Policy Board for Mathematics (JPBM) Communications Award was established by the JPBM in 1988 and is given annually to reward and encourage communicators who, on a sustained basis, bring mathematical ideas and information to non-mathematical audiences. The JPBM is a collaborative effort of the American Mathematical Society, American Statistical Association, Mathematical Association of America, and Society for Industrial and Applied Mathematics.



Talithia Williams

Citation

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Talithia Williams, an associate professor of mathematics at Harvey Mudd College, has won the 2022 Joint Policy Board for Mathematics (JPBM) Communications Award for bringing mathematics and statistics into the homes and hands of millions through her work as a TV host, renowned speaker, and author.

Biographical Note

Talithia Williams is a statistician who is an innovative, award-winning college professor, a co-host of the PBS NOVA series *NOVA Wonders*, and a speaker whose popular TED talk, “Own Your Body’s Data,” extols the value of statistics in quantifying personal health information. She demystifies the mathematical process in amusing and insightful ways to excite students, parents, educators, and the larger community about STEM education and its possibilities. In 2015, she won the Mathematical Association of America’s Henry L. Alder Award for Distinguished Teaching by a Beginning College or University Mathematics Faculty Member, which honors faculty members whose teaching is effective, extraordinary, and extends its influence beyond the classroom.

A current MAA Pólya Lecturer, Williams developed a 24-part college-level lecture series, “Learning Statistics: Concepts and Applications in R,” for The Great Courses, an online platform for lifelong learners. She is the author of *Power in Numbers: The Rebel Women of Mathematics*, a full-color book highlighting the influence of women in the mathematical sciences in the last two millennia, and she has narrated several science documentary films including *Hindenburg: The New Evidence*, *Our Beautiful Planet*, *Secrets in our DNA*, and the upcoming joint BBC and NOVA 5-part series *Universe*.

Williams is currently an associate professor of mathematics at Harvey Mudd College. She is a proud graduate of Spelman College (BA in mathematics), Howard University (MS in mathematics), and Rice University (MA and PhD in statistics). Her research involves developing statistical models that emphasize the spatial and temporal structure of data and applying them to problems in the environment. She has worked at NASA, the National Security Agency, and the Jet Propulsion Laboratory and has partnered with the World Health Organization on research regarding cataract surgical rates in African countries. Faith and family round out a busy life that she shares with her husband and three amazing boys. Through her research and work in the community at large, she is helping change the collective cultural mindset, rebranding STEM as anything but dry, technical, or male-dominated but instead a logical, productive career path that is crucial to the future of the country.

Response from Talithia Williams

I recall the day my student, Elly, asked me if I'd consider giving a Claremont Colleges TEDx talk. I very politely declined. Not one to be easily dismayed, however, she kept asking and after about a week, I finally gave in. She later told me the topic: Storytelling. Storytelling?? STORYTELLING?!! What does math have to do with storytelling? I reached out to my colleague, Arthur Benjamin, to get his sage TED advice. Together, we came up with the idea of telling stories with data and "Show Me the Data" was birthed. This local TEDx talk would eventually go on to become a featured TED talk that has been viewed nearly 2 million times and has opened the door to so many other storytelling opportunities.

I am thrilled to be receiving the JPBM Communications Award for 2022. Sharing my enthusiasm for data science and mathematics with broad audiences has become one of the stories I truly enjoy telling. I'd like to thank the JPBM committee, all of my Harvey Mudd College colleagues, especially Arthur Benjamin, and my wonderful husband, Donald and sons, Josiah, Noah, and Micaiah. And my momma, Delores. I can't forget my momma!

Credits

Photo of Talithia Williams is courtesy of Talithia Williams.