CITATION

Erica Klarreich

The 2021 JPBM Communications Award is presented to Erica Klarreich for her work as a writer and popularizer of mathematics and science. She writes about mathematics and theoretical computer science, and her writing has been chosen for and reprinted in *Best Writing on Mathematics* in four different years. Her works have appeared in *Quanta*, *The Atlantic*, *New Scientist*, *Science News*, *Wired* and other publications for a general audience. Erica Klarreich received a Ph.D. in mathematics in 1997.

Biographical Note

Erica Klarreich has been writing about mathematics and science for a popular audience for more than twenty years. She has a Ph.D. in mathematics from Stony Brook University and was a postdoc at the University of Michigan for three years. She is a graduate of the science communication program at the University of California, Santa Cruz.

As a freelance journalist based in Berkeley, California, she has written hundreds of articles for a wide range of publications, including *Quanta Magazine*, *Nature*, *New Scientist*, *Science News* and *Nautilus*. Her articles for *Quanta* have been syndicated in *Wired*, *The Atlantic* and *Scientific American* and have been translated into many languages. Her work has been reprinted in the 2010, 2011, 2016 and 2020 volumes of *The Best Writing on Mathematics* and in the *Quanta Magazine* anthology "The Prime Number Conspiracy."

She was the journalist in residence at the Mathematical Sciences Research Institute in Berkeley in 2002 and at the Simons Institute for the Theory of Computing at the University of California, Berkeley in 2016. She has appeared on the Numberphile YouTube series and was the narrator for two mathematics documentaries by ZALA Films: *Secrets of the Surface*, about the life and work of Maryam Mirzakhani, and *Counting from Infinity*, about Yitang Zhang's work on the twin primes conjecture.

Response from Erica Klarreich

It is a great honor to join the ranks of the previous recipients of this prize, whom I deeply admire. It has been my privilege to tell the stories of mathematics over the past two decades, and I look forward to the stories the coming years will bring.

Many people helped me reach the point where I could share these stories, and I'd like to mention a few: my parents, Emily and Paul Klarreich, both math teachers, who taught me the family trade from my earliest days; my Ph.D. adviser, Yair Minsky, who introduced me to one of the most beautiful areas of mathematics, three-dimensional hyperbolic geometry; my professors at UC Santa Cruz (especially Robert Irion), who helped turn me from a mathematician

into a journalist; and my editor at *Quanta Magazine*, Thomas Lin. When he feels that one of my drafts needs improvement, he sends me a list of suggestions that always contains at least three impossible tasks. Then I figure out how to do them, and my article is immeasurably better.

It's been more than 20 years since I did any mathematics research of my own. But I am in constant conversation with research mathematicians, and sharing in their excitement about their work is one of the most delightful parts of my job.

I have found over the years that the stories that resonate the most with readers are those with a powerful human element. My readers want to understand mathematics, but they also want to understand you: the people who have dedicated your lives to the pursuit of mathematical beauty and discovery. They want to know about your struggles and your triumphs, your disappointments and your flashes of joy.

I believe that even those readers who found their own math education mind-numbing or traumatic still feel, on some level, that mathematics is an inextricable component of the human experience. And when the human element in a story is compelling, my readers are willing to dive into the hardest research areas at the frontiers of modern mathematics.

Many of my most successful stories have come about because some mathematician told me about something amazing that was happening in their field. So I'd like to end with an invitation: When you hear about a beautiful new advance, please share it with me or other mathematics communicators, so that we can share it in turn with the broader public. Reading about your stories gives people an opportunity to see the world through your eyes, catch a glimpse of the mathematical beauty that motivates you, and emerge with an enlarged sense of human potential.