

**JPBM Communications Award
Citation Samples**

Museum of Mathematics (“MoMath”) (2016)

2016 JPBM Communications Award for Public Outreach

The award is presented to the **Museum of Mathematics, MoMath**, for its innovative approach to presenting fundamental mathematical ideas to the public in a variety of creative, informative, and entertaining exhibits and events that engage audiences with the beauty and utility of mathematics in daily life.

Simon Singh (2016)

2016 JPBM Communications Award for Expository and Popular Books

The award is presented to **Simon Singh** for his fascinating books on mathematical topics, including *Fermat’s Enigma*, *The Code Book*, and *The Simpsons and Their Mathematical Secrets*, which have opened up the beauty of mathematics and mathematical thinking to broad audiences with clear and charming prose.

Nathaniel (Nate) Silver (2015)

2015 JPBM Communications Award for Increasing Public Understanding of Statistics

The award is presented to **Nate Silver** for his award-winning [FiveThirtyEight.com](http://www.fivethirtyeight.com) website, his *New York Times* bestseller, *The Signal and the Noise: Why Most Predictions Fail – But Some Don’t*, and a host of other ways in which he has helped the public to better understand the world through sound and innovative use of statistics and extraordinarily lucid explanations of his work.

Danica McKellar (2014)

The 2014 JPBM Communications Award is presented to Danica McKellar, an actress (*Wonder Years*, *West Wing*), a published mathematician (while earning her bachelors degree in mathematics at UCLA), an advocate for mathematics education, and a *New York Times* bestselling author (<http://www.danicamckellar.com/>). Her books, blog, and public appearances have encouraged countless middle and high school students, especially girls, to be more interested in mathematics.

Her books include *Math Doesn’t Suck: How to Survive Middle-School Math Without Losing Your Mind or Breaking a Nail* (2007), *Kiss My Math: Showing Pre-Algebra Who’s Boss* (2008), *Hot x: Algebra Exposed* (2010), and *Girls Get Curves: Geometry Takes Shape* (2012). Their brilliant presentation of mathematical concepts in ways that relate to young girls have attracted a huge audience that includes both boys and girls. The first three books made the NYT bestsellers list. Links to all of their webpages are found at <http://www.danicamckellar.com/math-books/>. Her blog *Math & More*, also found on her website, reaches out to the same audience with mathematical puzzles, links to her appearances at book signings and broadcast promotions. Over the past seven years she may have inspired more young people to embrace mathematics than anyone else.

John Allen Paulos (2013)

The 2013 JPBM Communications Award is presented to John Allen Paulos, Professor of Mathematics at Temple University. Professor Paulos's books, columns, reviews, speeches, and editorials have for more than 25 years brought mathematically-informed ideas, information, opinion, and humor to a broad non-specialist audience.

One of Professor Paulos's early books, *Innumeracy: Mathematical Illiteracy and its Consequences*, was a New York Times bestseller in 1988; *A Mathematician Plays the Stockmarket* (1995) appeared on Business Week's bestseller list. His many mathematical columns have appeared in Scientific American, the Guardian, the New York Times, the Nation, the American Scholar, the London Review of Books, and ABCNews.com. He has given talks at countless venues, ranging from the Smithsonian and the National Academy of Sciences to Harvard's Hasty Pudding Club.

Professor Paulos's writings combine data, forthright opinion, and wide-ranging mathematics to entertain and inform the public, both about timely issues and about how mathematics can and should underlie public discussion and inform the search for solutions.

Dana Mackenzie (2012)

The 2012 JPBM Communications Award is presented to Dr. Dana Mackenzie. Over the last 15 years Dr. Mackenzie has produced a remarkably broad and deep body of writing for experts and non-experts alike. The work focuses largely on mathematics itself, but also touches geology, climate change, astronomy, academic mathematics as a profession, and even the game of chess—at which Dr. Mackenzie competes at the USCF National Master level.

Dr. Mackenzie's authorship of Volumes 6--8 of *What's Happening in the Mathematical Sciences*, published by the American Mathematical Society, illustrates his knowledge, versatility, and expository skill. These lucid, informative, and witty volumes showcase the importance and applicability of up-to-the-moment developments in mathematics, in fields ranging from the geometry of surfaces to signal processing to the history of mathematics in antiquity. When *Science* recognized Grigory Perelman's proof of the Poincaré conjecture as "Breakthrough of the Year" in 2006, Dr. Mackenzie was chosen to write the cover article. In these and other works, Dr. Mackenzie reveals, celebrates, and illustrates the excitement and vitality of learning, using, and discovering excellent mathematics.

Nicolas Falacci and Cheryl Heuton (2011)

The 2011 JPBM Communications Award is awarded to Nicolas Falacci and Cheryl Heuton for their positive portrayal of the power and fun of mathematics through their hit TV series, *Numb3rs*.

Nicolas Falacci and Cheryl Heuton created the extraordinary TV series *Numb3rs*, featuring an FBI agent and his brother, a mathematical genius. Through its six-season run on CBS, the series featured the use of mathematical thinking and modeling to solve crimes. *Numb3rs* provided the general public with a glimpse of the mathematical world, its depth and its power, in a way that connected with a broad spectrum of viewers. With creativity and cleverness, their work, which includes over 100 episodes, made its fans aware of the ubiquity of mathematics in their daily lives.

[Falacci and Heuton have been recognized by the National Science Board with its Public Service Award, and they are the recipients of the Carl Sagan Public Understanding of Science Award.]

Marcus du Sautoy (2010)

The 2010 JPBM Communications Award is made to Marcus du Sautoy, Simonyi Professor for the Public Understanding of Science and Professor of Mathematics at the University of Oxford.

For the past fifteen years Professor du Sautoy has complemented his love of mathematical discovery with a passion for communicating mathematics to a broad public. He has reached hundreds of thousands through his books, television shows, and hundreds of articles and appearances in newspapers, magazines, television, and radio. His 2003 book on the Riemann Hypothesis, entitled "The Music of the Primes", is a best-seller which has been translated into 10 languages.

In his 2008 book "Symmetry: A Journey into the Patterns of Nature", du Sautoy guides the reader through groups and symmetry, from Babylonia to moonshine theory, while at the same time giving an engaging glimpse into mathematicians' minds. His four part television, the Story of Maths, presents a fascinating look at the development of mathematics from the design of the pyramids in Egypt to Perelman's proof of Poincaré's Conjecture.

Whether it is talking about Beckham's choice of number on a sports radio program, explaining the work of the Abel prize winner on Norwegian television, writing a weekly math column for the London Times, hosting a television game show based on math puzzles, or delivering the Royal Institution Christmas Lectures, Marcus du Sautoy invariably seizes opportunities to make mathematics more accessible and more appealing.

George Csicsery (2009)

The 2009 JPBM Communications Award is awarded to George Csicsery for his extraordinary body of work showing the process of mathematical thinking through the medium of film.

George Csicsery is an artist who has employed his talents to communicate the beauty and fascination of mathematics and the passion of those who pursue it. This began with the film *N is a Number: A Portrait of Paul Erdős* (1993) which has been broadcast in Hungary, Australia, Netherlands, Japan, and the United States. In 2008 he completed the biographical documentary *Julia Robinson and Hilbert's Tenth Problem* and *Hard Problems* a documentary on the preparations and competition of the US International Mathematical Olympiad team in 2006. Other recent works include *Invitation to Discover* (2002), made for the Mathematical Sciences Research Institute, and *porridge pulleys and Pi* (2003), a 30-minute piece on mathematicians Hendrik Lenstra and Vaughan Jones which premiered at Téléscience in Montreal, Canada in November 2003. Through his films, George Csicsery expresses the excitement experienced by mathematically gifted individuals and has delighted mathematicians, students, the public with his intriguing stories told through the media of film.

Carl Bialik (2008)

The 2008 JPBM Communications Award is awarded to Carl Bialik, the *Wall Street Journal's* Numbers Guy, for increasing the public's understanding of mathematical concepts.

In his regular columns and blogs, Carl Bialik exposes the misuse of numbers and statistics throughout society and in applications ranging over every part of life, from economics and politics to sports and medicine. His writing does more than document the misuse, however, because he gently introduces sound mathematical reasoning in everything he writes. He shows how to use numbers and mathematics in a way that illustrates sound principles of scientific inquiry, paying careful attention to original sources and using professional mathematical scientists to validate his work.

Carl Bialik exemplifies the best traditions of scientific journalism, bringing mathematics and mathematical thinking to a large readership. The breadth, volume, and quality of his writing are all spectacular.

Steven Strogatz (2007)

The 2007 JPBM Communications award is given to Steven H. Strogatz, Professor of Theoretical and Applied Mechanics at Cornell University.

Steve works in applied mathematics in dynamical systems dealing with synchrony. He has written popular books on the subject, given popular lectures, and has written op-ed pieces for the New York Times, such as "How the Blackout Came to Life," (New York Times, August 25, 2003). Promotions for his popular book "Sync: The Emerging Science of Spontaneous Order" included public presentations with well-known figures like the actor Alan Alda. Examples of his influence as a speaker include his interviews, such as with the Edge.

His seminal research on human sleep and circadian rhythms, scroll waves, coupled oscillators, synchronous fireflies, Josephson junctions, and small-world networks has been featured in *Nature*, *Science*, *Scientific American*, the *New York Times*, *US News and World Report*, *New Yorker*, *Discover*, *American Scientist*, *Science News*, *Newsweek*, *Die Zeit*, and London's *Daily Telegraph*, and broadcast on BBC Radio, National Public Radio, CBS News, and numerous other mass media outlets.

In this instance, the JPBM recognizes a person from within the mathematical sciences community who made a consistent effort to reach out to a wider audience. Strogatz has made significant contact with the wider scientific community. The style of "Sync" and its sales indicate that it is intended for and has reached an even wider audience. The volume of this work is impressive, but the quality and breadth are spectacular as well.

Sir Roger Penrose (2006)

The Joint Policy Board for Mathematics presents its 2006 Communications Award to Sir Roger Penrose for the discovery of Penrose tilings, which have captured the public's imagination, and for an extraordinary series of books that brought the subject of consciousness to the public in mathematical terms.

Dr. Penrose has acquired a large public following for eight books he has written. A number of these explore ideas that relate fundamental physics, mathematical logic and human consciousness. In *The Emperor's New Mind* (1989) and also in later volumes, he has argued that known laws of physics do not constitute a complete system and that human consciousness cannot be explained until a new physical theory of quantum gravity has been devised. These ideas have stimulated broad public debate. They have brought widespread attention to the scientific and philosophical implications of consciousness. The most recent book of Dr. Penrose, *The Road to Reality* (2005), is a bold and broadly conceived attempt to present the techniques of modern mathematics and physics before a general public audience. This year's JPBM Communication Award is a tribute to the way that Dr. Penrose has made the ideas behind high level mathematics accessible to large segments of the general public.

Robert Osserman (2003)

The 2003 JPBM Communications award is given to Robert Osserman, Professor Emeritus at Stanford University and Special Projects Director at the Mathematical Science Research Institute in Berkeley.

For many years, Bob Osserman has been an erudite spokesman for mathematics, communicating its charm and excitement to thousands of people from all walks of life.

His slim volume *Poetry of the Universe* has been described as "artful and beguiling," introducing readers to the inherent beauty and power of mathematical thinking. It has appeared in more than ten languages. But he has communicated with the public in a more unconventional style as well through his open conversations and dialogues, with playwrights and writers from Tom Stoppard to Steve Martin. These informal and relaxed interviews give mathematical and lay audiences alike an understanding of mathematics through its connections to media and literature. The interviews make mathematics part of our modern culture.

Bob Osserman believes in making mathematics accessible to the general public. He has done more than explain mathematics, however. He has made "mathematics appreciation" more than the title of a course—Bob Osserman has changed people's attitudes towards the subject.

Ian Stewart (2001)

The 1999 JPBM Communications award is given to Ian Stewart of the University of Warwick.

For more than 20 years, Ian Stewart has communicated the excitement of science and mathematics to millions of people around the world.

He has written more than a dozen expository and popular books on mathematics including *The Problems of Mathematics*, *Does God Play Dice?*, *Fearful Symmetry* (with M. Golubitsky), *Nature's Numbers*, *The Magical Maze*, and *Life's Other Secret*. (One of these has been translated into at least 14 different languages, and all of them have been translated into several.) He has written more than 200 expository articles, appeared in more than 200 television and radio shows, delivered dozens of popular lectures (including the BBC-TV Christmas lectures in 1997), and written hundreds of columns on mathematics in *Scientific American*, *Pour La Science*, and *Nature*.

The sheer volume of this work is staggering. But the quality is spectacular as well. With clarity and humor, Ian Stewart explains everything from number theory to fractals, from euclidean geometry to fluid dynamics, from game theory to foundations. He conveys both the beauty and the utility of mathematics in a way seldom achieved by a single author, and he does so with charm and eloquence.