2003 JPBM Communications Award

The 2003 Communications Award of the Joint Policy Board for Mathematics (JPBM) was presented at the 108th Annual Meeting of the AMS in Baltimore in January 2003.

The JPBM Communications Award is presented annually to reward and encourage journalists and other communicators who, on a sustained basis, bring accurate mathematical information to non-mathematical audiences. The award carries a cash prize of $1,000.

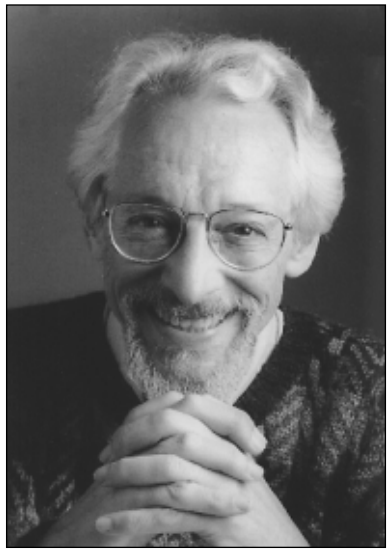
Previous recipients of the JPBM Communications Award are: James Gleick (1988), Hugh Whitemore (1990), Ivars Peterson (1991), Joel Schneider (1993), Martin Gardner (1994), Gina Kolata (1996), Philip J. Davis (1997), Constance Reid (1998), Ian Stewart (1999), John Lynch and Simon Singh (special award, 1999), Sylvia Nasar (2000), Keith J. Devlin (2001), and Claire and Helaman Ferguson (2002).

The 2003 JPBM Communications Award was presented to ROBERT OSSERMAN. The text that follows presents the selection committee's citation, a brief biographical sketch, and the recipient's response upon receiving the award.

Citation

The 2003 JPBM Communications Award is given to Robert Osserman, professor emeritus at Stanford University and Special Projects Director at the Mathematical Sciences 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.



Robert Osserman

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.

Biographical Sketch

Robert Osserman was born and raised in New York City. He attended the Bronx High School of Science and New York University before being drafted into the army. He received his M.A. and Ph.D. from Harvard, with breaks to study in Zurich and Paris.

His research work has had a geometric slant, starting with geometric function theory and Rie-

mann surfaces, then to differential geometry, the complex variable and PDE approaches to minimal surfaces, isoperimetric inequalities, and a brief foray into ergodic theory. He has had a broad array of coauthors in this work, including former students Blaine Lawson, Robert Gulliver, and David Hoffman, as well as Henry Landau, S.-S. Chern, Halsey Royden, Max Schiffer, Robert Finn, Richard Schoen, Peter Sarnak, and Min Ru.

Osserman taught at Stanford University from 1955 to 1994, with years off as a visitor to Harvard University, a Fulbright Lecturer at Paris, a Guggenheim Fellow at the University of Warwick, the head of the Mathematics Branch of the Office of Naval Research, and a visiting member of the Courant Institute of Mathematical Sciences, New York University. At Stanford he received the Dean's Award for Teaching and the Mellon Professorship for Interdisciplinary Studies. He also received the Lester R. Ford Award from the Mathematical Association of America for excellence in expository writing. Since 1990 he has been associated with the Mathematical Sciences Research Institute (MSRI), first as deputy director and then as special projects director.

Response

My main concerns throughout most of my career were teaching and research, and along with the usual related duties of academic life, these pretty well filled up the available time. However, the urge to expose a broader public to some of the most beautiful and interesting parts of mathematics was clearly always there. Already as a graduate student I succeeded in attracting an audience of some 300 to a talk on Gödel's undecidability theorem by pairing it with a performance by fellow student Tom Lehrer.

Over the years I made occasional forays in a similar direction, talking to high school students, alumni groups, and others. A course on mathematics, science, and technology designed for a nontechnical (and even technophobic) audience led to my writing a book on geometry and cosmology in which I tried to offer something of interest to everyone, from those with no mathematical background all the way to the professional mathematician. One of my main goals was to make the presentation not only accessible but also accurate, since I had found so much misinformation in many "popular" presentations of science and mathematics.

After retiring from teaching in 1994 and trading in my position as deputy director of MSRI for that of special projects director in 1995, I finally had the freedom to think more deeply about how to reach those parts of the general public who would normally stay far away from anything billed as "mathematics".

The time and place could not have been more propitious. Bill Thurston, who was MSRI director at the time, and David Eisenbud, who took over in 1997, were both fully supportive of this goal, as have been the relevant MSRI governing bodies. I owe them all great thanks, as I do the many staff members at MSRI during these years, who brought enormous talent and energy to our public events.

I further owe a debt to the mysterious zeitgeist that just at this time was turning the interest of the general public toward mathematics through a series of books, plays, and movies. They provided the perfect vehicle to attract an audience whose main interest may have been in theater, film, or literature.

Most of all I am grateful to those authors who wrote the books, plays, and screenplays, then agreed to participate in our public events and engage in a broad-ranging dialogue, including the mathematical angles about which they often felt not very sure: Tom Stoppard (*Arcadia*), David Auburn (*Proof*), Michael Frayn (*Copenhagen*), Sylvia Nasar (*A Beautiful Mind*), and Steve Martin (*The Pleasure of My Company*) in particular.