

Women in Mathematics

Maryam Mirzakhani

"You have to spend some energy and effort to see the beauty of math"



(Photo by: Jon Vondrak)

Early life

- Maryam Mirzakhani was born in May 1977, in Tehran, Iran. One of four children, Maryam had dreams of being a writer. While a teenager, Mirzakhani won gold medals in the 1994 and 1995 International Mathematical Olympiads, attaining a perfect score in 1995.

Education

- She attended Sharif University in Iran, and developed a passion for Math. In 1999 she received a B.Sc. degree in mathematics.
- Maryam continued her education at the Harvard University in the US, focusing on Combinatorics and Algebra. She also enjoyed Complex Analysis. Maryam's thesis showed how to compute the Weil-Petersson volumes of moduli spaces of bordered Riemann surfaces.
- Five years later she earned a Ph.D. from Harvard University for her dissertation "Simple Geodesics on Hyperbolic Surfaces and Volume of the Moduli Space of Curves".

"After breaking the glass ceiling as the first female Medalist, she accepted with grace her role as a symbol for women's achievement. An Iranian-American, she served also as a reminder of the international character of the mathematical enterprise. Maryam Mirzakhani left us in the prime of her professional life. Her passing is a great loss to the mathematical community." - Kenneth A. Ribet - AMS President

Career

- Mirzakhani served (2004–08) as a Clay Mathematics Institute research fellow and an assistant professor of mathematics at Princeton University
- In 2008 she became a professor at Stanford University.

Awards and Legacy

- In 2014, Maryam Mirzakhani became the first woman to ever win the Fields Medal.
- Mirzakhani was diagnosed with breast cancer in 2013. In 2016, the cancer spread to her bones and liver, and she died on 14 July 2017 at the age of 40 at Stanford Hospital in Stanford, California.
- In 2014, students at the University of Oxford founded the Mirzakhani Society, a society for women and non-binary students studying Mathematics at the University of Oxford.
- Maryam Mirzakhani's birthday, May 12th, has been declared as **International Women in Mathematics Day**.
- In 2019 *The Breakthrough Prize Foundation* announced that the *Maryam Mirzakhani New Frontiers Prize* has been created to be awarded to outstanding women in the field of mathematics each year.



(Photo by: Lee Young-ho/Sipa USA)

"She listened with attention and was very generous with her time. Behind her kind serenity one could perceive a steely tenacity and a deep well of ideas and, of course, a passion for math and an incessant quest for the fantastic "aha" moment". - Moira Chas-