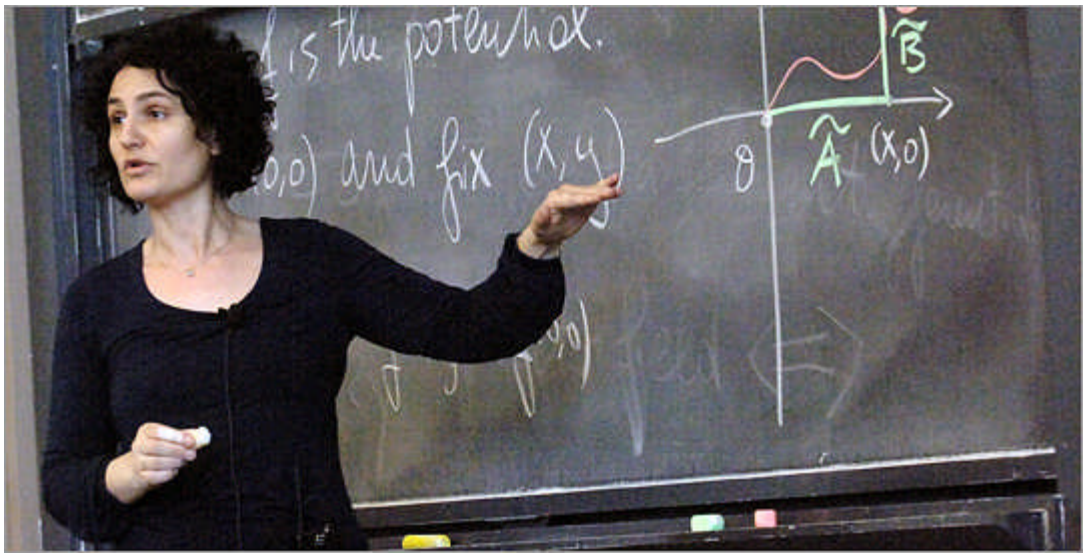
A life of unexpected twists takes her from farm to math department

'My life should have gone any other way than the way it did.' - Gigliola Staffilani



MIT Professor Gigliola Staffilani at the blackboard. (Donna Coveney / MIT Photo)
Globe Correspondent / April 28, 2008

Improbable. That's one way to describe it. Or you could say very lucky. Then again, you might believe in destiny. Gigliola Staffilani's life is the story of one unlikely event after another that have collided in just the right way to land her where she is now, which is sitting in a sunny, spacious office at MIT, where she is, at age 42, the only female full professor of pure mathematics.

"My life has been like billiards," she said, reaching for an explanation. "Balls have hit me and I've shot off in different directions. And I feel like all the balls that have hit me have shot me off on the maximal path."

The story starts on a farm in a small town in Italy, along the Adriatic Sea. Staffilani is 6 years old. She has never seen a book, never really been off the farm, and doesn't even speak Italian (she spoke a local dialect). That year, she went off to a tiny little school in the country and found that she liked this world of learning, had a natural knack for it. Her brother, who was 10 years older and in high school on his way to becoming a physician, subscribed to the Italian version of Scientific American and she devoured it, especially the biographies of the scientists at the glamorous institutions in America that seemed to her "as distant as an alien."

When she was 10, her father died of cancer, and with money tight, her mother decided that instead of going to high school, Staffilani should become a hairdresser.

"My mother said that I didn't need school, and I could marry one of my brother's doctor friends," she remembered. "I knew I couldn't do it. Plus, I hate my hair. It's so curly."

Her brother intervened for her, she went to high school, and became a mathematics star. When it was time for college, the same conversation happened. No money. No need. So without telling her family, she applied for, and received, a fellowship to go to the University of Bologna, convincing her family that she would become a high school math teacher, which was acceptable.

But the fellowship didn't cover housing, so she lived in the hallway of an old palace run by nuns, and cooked her meals on a camping stove. Life was hard, but math was always there to comfort, "the only stable and controllable thing in my life," she said.

Near the end of her college years, she met an American doctorate student who introduced her to the wild idea that there was such a thing as a career in math - that you could do math for a living - and encouraged her to apply for a doctoral program at the University of Chicago. She got in, took her first plane ride, got on the wrong connection in New York (she wound up in Minneapolis), and arrived at the university to discover that they weren't going to admit her because she had not passed the required Test of English as Foreign Language.

She refused to leave. She knew if she went back to Italy, the dream was over. So she hung around the math department so much that they finally admitted her just to prove that she'd be gone in two weeks. She stuck. "As long as it was formulas on a blackboard, I could survive."

But she had no money and when she went to get her graduate stipend, it wasn't there - no TOEFFL, no money - and so she finally gave up. She went the payphone in the math department, and made a tearful call to the airline to book a trip home. "I was so upset. I had this dream of becoming one of the scientists in the magazine. I was so close. And I was going to have to give it up." That's when Paul Sally walked by.

Sally, a legendary math professor at the University of Chicago, told her to hang up the phone, come to his office, and he wrote her a $1,000 check from his own pocket. "She just needed a little help," said Sally, who refuses to take credit for Staffilani's claim that he saved her career. "She's a true talent, and she arrived at the right place all by herself."

She excelled at Chicago, did some post-doc work at Princeton's fabled Institute for Advanced Study, where, she says , more luck helped her solve a difficult problem that led to her getting put on the tenure track at Stanford and, ultimately, to MIT, where she arrived as a full-tenured associate professor in 2002 at age 36.

As she tells her story, Staffilani is palpably grateful. "I have so many instances where I can zoom in and see the luck," she said, downplaying the role of her own considerable mathematical gifts. "My life should have gone any other way than the way it did."

And those glamorous scientists from Scientific American that she used to dream about.

"I have lunch with them," she says, holding up her arms in disbelief. "They are my friends. I've jumped into my dream." - theorems."

Hometown: Martinsicuro, Italy; lives in Cambridge.

Education: Received an undergraduate degree in math from Bologna University in 1989; earned a doctorate from the University of Chicago in math in 1995.

Family: Husband, Tom Mrowka, is also a math professor at MIT; they have 5-year-old twins, Mario and Sofia.

Hobbies: She loves to cook and host dinner parties at her home, and plans to take a sabbatical in two years to train for the Boston Marathon. "Oh, and I love books," she said, smiling.

On the recent women in math conference she organized: "I made sure it focused on difficult math. I don't think it's productive to sit around and cry about [the lack of women in the field]. That doesn't solve anything. You prove people wrong by solving difficult theorems."

(Source: http://www.boston.com/news/science/)