

Latinxs and Hispanics in Mathematical Sciences



Marcella Torres

Marcella Torres was born in Omaha, Nebraska, to Tejano and Argentinean parents. She had a great early interest in literature, art, and music, attending a magnet school for fine arts and later vocational school for fashion design, and also performing as a first chair violist in school, state, and regional orchestra and symphony. In contrast, she took one pre-algebra course in high school, earning a “C”.

Following high school graduation, Marcella worked in a screen printing factory and machine embroidery factory for \$5.15/hour while cleaning apartments for several years, the same jobs held by her mother and grandmother. No one in her family had ever attended college. When she was inspired to enroll in community college and took the mathematics placement test, Marcella scored into a course called “Fractions, Decimals, and Percents”—the first of many basic preparatory courses she would need to take with no degree credit before being able to enroll.

She went on to earn a bachelors in Applied Mathematics with a minor in Physics, magna cum laude. She worked as an actuary for several years before pursuing a masters in Applied Mathematics and a doctorate in Systems Modeling and Research while raising two children and running a successful personal training business.

Marcella’s research focuses on mathematical modeling of human biological systems and applying statistical methods to connect these mechanistic models to real data. Currently, she is collaborating with obesity researchers at the University of Madrid who have successfully calibrated the model for use in obesity interventions. In addition, Marcella works in mathematical modeling applications of machine learning and optimal control.

In addition to mentoring underrepresented and first-generation students as part of SMART (Science Math and Research Training) and URISE (University of Richmond Integrated Science Experience) programs, Marcella also volunteers in the community. She co-organized a Sonia Kovalevsky Day event for middle school students from Richmond Public Schools, “Zombie Outbreak: How Math Can Save Your Life,” that introduced attendees from age three and up to concepts from probability, mathematical modeling, and infectious disease spread. Marcella also served as a volunteer screener and judge for the Metro Richmond STEM Fair for junior and senior division in mathematics. The Richmond Public School system primarily serves minority students, and she is looking forward to serving as a role model for many years to come.

“I think that a stereotype is often just an overly simple mental model of a complex human being, and we should always be aware of this tendency to oversimplify and generalize. Hispanic Heritage Month is a time to re-evaluate the complexity of our mental model of “Hispanic-ness” and “Latinx-ness” by appreciating the diverse stories of other humans, some similar to ours and some vastly different. It also serves as a reminder that we should be willing to be vulnerable and share our own stories with our students so that they too can expand their mental models.”

Lathisms was founded in 2016 in order to showcase the contributions of Latinx and Hispanic mathematicians during Hispanic Heritage Month, which is celebrated in the United States from September 15 and October 15 every year. During this time, we feature/reveal a prominent Latinx/Hispanic mathematician daily. See all the featured mathematical scientists at LATHISMS.ORG.

Thanks to the American Mathematical Society for support of Lathisms.