

Latinxs and Hispanics in the Mathematical Sciences



"Hispanic Heritage Month is a time of homecoming, an avenue of self-discovery through a deeper examination of our past and present. It compels us to simultaneously appreciate the rich cultures that comprise us, to celebrate our triumphs, and to address the persistent disparities before us---especially for American Latinas in mathematics."

Rosemary Guzman

Teaching Assistant Professor, University of Illinois at Urbana-Champaign

Dr. Guzman is a first-generation student whose parents are from Guadalajara, Mexico. She is visually impaired, grew up in public housing, and raised by a loving single mother. Dr. Guzman's Chicago Public School was headlined by the *Chicago Tribune* as a place where "the future dies early." Nonetheless, Dr. Guzman found comfort in the beauty and structure of mathematics as a young child, a juxtaposition with the chaos surrounding her. She remained resilient and later enrolled at Northwestern University, earning her undergraduate degree in mathematics. She subsequently earned a master's degree at Loyola University, then a PhD at the University of Illinois at Chicago. In 2011, she was the only female URM to earn a PhD in mathematics from a top 25 public university. This accolade was bittersweet, as Dr. Guzman lost her mother to cancer during her graduate program.

Dr. Guzman's research is in low-dimensional topology, geometric group theory, and hyperbolic 3-manifolds. The theme is to examine explicitly how geometric invariants are related to more classical topological invariants and homology using innovations in geometric analysis, combinatorics, and graph theory.

Dr. Guzman promotes inclusivity through outreach initiatives and enjoys using these experiences to mentor, learn, and connect people with opportunities. Her field of topology is among the least diverse specialties in STEM, so she recruits and mentors promising students. Dr. Guzman created a pipeline to give research opportunities to historically underrepresented students and co-organized the inaugural Geometry Labs United conference to promote their work.

She advises students to not assume their accomplishments and hard work to be evident to those around you. "Oftentimes, our culture merits the idea of 'work hard and your accomplishments will speak for themselves.'" Instead, she advises students, "you need to speak for them: networking is critical for success. Foster relationships that allow you to flourish and contribute your talents, be mindful about your time, and ensure your institution's support for your career development is more than platitudes. If you can, leave articulated pathways behind you that others can traverse."

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](https://lathisms.org).

Thanks to the American Mathematical Society and the Mathematical Association of America for support of Lathisms.