

Latinxs and Hispanics in Mathematical Sciences



“Hispanic Heritage Month is a time for us Latinx and Hispanics to make noise! This month, we celebrate and recognize those who have come before us and have served as role models and have shown us that all is possible. It is also a time to highlight and celebrate those who are making small and big contributions in science, arts, and in our communities. Hispanic Heritage Month is the time to show the world how proud we are of our beautiful and diverse cultures and to display the richness of this country through our contributions.”

Marisabel Rodriguez Messan

ORISE Research Fellow, U.S. Food and Drug Administration

Marisabel Rodriguez Mesan was born in Mexico City and grew up in Reynosa, a city in the Northeast of Mexico bordering Texas. From an early age, she enjoyed mathematics for its fun, dynamic, and creative feeling. Besides mathematics, she also enjoyed drawing, painting, and crafting. After completing her high school education in Reynosa, she moved to Edinburg, Texas, to pursue her undergraduate education at The University of Texas Rio Grande Valley (UTRGV) where she earned her Bachelor of Science degree in Mathematics from UTRGV in 2011. Marisabel knew she wanted to pursue a postgraduate degree; thus, she obtained a Master of Science in Applied Mathematics in 2013 from UTRGV. While in the master’s program, she was encouraged by Dr. Maria Cristiana Villalobos, a Professor at UTRGV, to attend The Mathematical and Theoretical Biology Institute (MTBI) at Arizona State University (ASU), a two-month intensive summer program recognized and honored by the White House with the 2011 Presidential Award for Excellence in Science, Mathematics and Engineering Mentoring (PAESMEM). While at MTBI, she was exposed to a wider range of mathematical applications and had no doubt that she wanted to pursue a doctorate. Hence, she applied to the Mathematics Department at ASU, where she was accepted with full tuition support and a teaching assistantship.

After earning her Ph.D. in 2018 from ASU, she took a one-year visiting lecturer position in the Department of Mathematics at Dartmouth College in Hanover, New Hampshire. At Dartmouth, Marisabel had the amazing opportunity to lead a classroom, interact with students, and mentor and was a role model representing women and minorities in STEM. Then in 2019, she joined the Data Science Initiative Center at Brown University in Rhode Island as part of a postdoctoral position from the Simon A. Levin Mathematical, Computational, and Modeling Sciences Center at ASU that she took in July 2019. Nonetheless, due to her husband, also a mathematician, relocating to Maryland, she quickly explored other opportunities in Maryland, including those in the government. In December 2019, Marisabel joined the Analytics and Benefit-Risk Assessment (ABRA) team under the Office of Biostatistics and Epidemiology in the Center of Biologics Evaluation and Research at the U.S. Food and Drug Administration (FDA) as an ORISE (Oak Ridge Institute for Science and Education) Research Fellow. At the FDA, she has been working on various projects related to the study and understanding of immunogenicity in cancer immunotherapies. One of her recent works uses dynamical systems theory and statistical methods to develop a mechanistic mathematical model to better understand the complex interactions between the human immune response and novel cancer immunotherapies, e.g., personalized cancer vaccines. The work of this research has been accepted for publication in *PLOS Computational Biology*.

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.