Latinxs and Hispanics in Mathematical Sciences

"It is important to have an appropriate recognition and appreciation for the Latino community as Latinos are the fastest growing population in the U.S. Only through this and similar efforts are we able to reduce the great discrepancies that exist in the mathematical sciences for this underrepresented population. Thank you for celebrating the Hispanic Heritage Month!"

Erika Camacho

Dr. Erika T. Camacho grew up in East Los Angeles and was taught by Jaime Escalante at Garfield High School. She received her B.A. in Mathematics and Economics from Wellesley College in 1997. After earning her Ph.D. in applied mathematics at Cornell University in 2003, Dr. Camacho spent a year as a postdoctoral research associate at Los Alamos National Laboratory. She then held a tenure-track faculty position at Loyola Marymount University before joining the faculty at ASU in 2007. She was a 2013-2014 MLK Visiting Assistant Professor of Mathematics at Massachusetts Institute of Technology (MIT). She co-founded and co-directed the Applied Mathematical Sciences Summer Institute (AMSSI), dedicated to the recruitment of undergraduate women, underrepresented minorities, and those that might not otherwise have the opportunity. Dr. Camacho's passion is to continue the work and legacy of her mentors: to create opportunities for those individuals from marginalized communities and make graduate education attainable to them through intensive research. Her leadership, scholarship, and mentoring have won her national and local recognition including the SACNAS Distinguished Undergraduate Mentoring Award, the Hispanic Women Corporation National Latina Leadership Award, one of 12 Emerging Scholars by Diverse: Issues in Higher Education, one of the 40 Hispanic Leaders Under 40 Award, and the ASU Faculty Women's Association Outstanding Faculty Mentoring Award.

Dr. Erika Camacho, Associate Professor of Arizona State University (ASU), published the first set of mechanistic models addressing photoreceptor degeneration. While experimental physiologists have been working on this area for decades, Dr. Camacho has helped provide a new framework through which experimentalists can examine this degeneration. Her work examines the characteristics and interactions of photoreceptors that are critical to their functionality and viability, traces the path of various subtypes of Retinitis Pigmentosa (RP), and tests/discriminates various hypotheses on certain degenerative eye diseases. Establishing this area of research within mathematical physiology has been impactful and has led to new collaborations with experimental biologists and medical researchers who are experts on retinal degeneration (RD) and mathematicians in the area of optimal control. Her work uses in silico experiments to computationally test or suggest hypotheses, discover new (unknown) interactions and principles that drive the system dynamics, and provide a platform for guiding experiments and data analysis. She will continue to work towards a complete understanding of photoreceptor degeneration with the ultimate goal of preventing blindness.

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**.

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