

Latinxs and Hispanics in Mathematical Sciences



Karen R. Ríos-Soto

Karen R. Ríos-Soto grew up and was academically raised in the public school system in Puerto Rico. She received a B.S. in Mathematics from the University of Puerto Rico Mayaguez (UPRM) in 2002 and a Ph.D. in Biometry and Mathematical Biology from Cornell University in 2008. Along her academic journey, she had wonderful mentors such as her high school teacher Merisbel Román, undergraduate mentor Ivelisse Rubio, and Ph.D. adviser, Carlos Castillo-Chavez. She spent nine months as a graduate research assistant in Los Alamos National Laboratory and three years at Arizona State University (ASU) before joining the Department of Mathematical Sciences at UPRM. Ríos-Soto is currently Associate Professor of Applied Mathematics and Bioengineering at UPRM and since 2010 an adjunct professor at the Mathematical, Computational and Modeling Science Center (MCMSC) at ASU.

Ríos-Soto has ample experience in the development of students through educational, research, and mentorship activities from the undergraduate to the doctoral level. She has supervised undergraduate research for more than 40 students as well as masters (10) and Ph.D. students (2) at UPRM and in the U.S.A. She has been involved with the REU-Mathematical and Theoretical Biology Institute (MTBI) at ASU as a Distinguished Scholar for more than 18 years. MTBI was founded in 1996 by Castillo-Chavez at Cornell University, a 2011 President Obama Honored Outstanding Science, Math and Engineering Mentors program. For three consecutive summers (2010-2012) she was the MTBI summer director, supervising undergraduate and graduate research in mathematical biology, and as of summer 2017, she is still research faculty of that program. She was also the recipient of a Center for Undergraduate Research in Mathematics mini-grant for the academic year 2015-2016 to perform undergraduate research at UPRM. Ríos-Soto has been a SACNAS member since 1999 (as an undergraduate student), co-organizer of Scientific Symposia, as speaker and mentor, including a development session on retention of professionals in STEM.

Ríos-Soto's research interests reside on the study and modeling of biological systems in population dynamics, such as modeling the dynamics of infectious diseases, invasive species and social dynamics, among others. In particular, her research is driven by the study of the mechanisms underlying the spread of infectious diseases, their control, and prevention. She has co-authored various peer reviewed publications in modeling the dynamics of infectious diseases.

"I celebrate our diversity all year round and promote the inclusion of more Latinos/as in our field. During Hispanic Heritage Month, I'm honored and humbled to represent Hispanics, Latinos/as, and women in mathematics, and from my position encourage other young Hispanic minds to achieve a higher level of education in mathematics and join our wonderful community... my motivation now is to pay it forward, y con mucha pasión."

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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