

Latinxs and Hispanics in Mathematical Sciences



Gabriel Sosa Castillo

Dr. Sosa Castillo was born in Barranquilla, Colombia. He decided to pursue a career in mathematics after two years of participating in Mathematical Olympiads representing Colombia in 1996 and 1997. Dr. Sosa Castillo moved to Costa Rica, where he attended Universidad de Costa Rica, and he came out as gay during his sophomore year in 2000. His coming out led to a hostile environment from some of his classmates; this, coupled with financial instability, led him to drop out of college. One of his professors helped him get a job as a middle and high school math teacher at a private bilingual school, where he worked for eight years. From 2004 to 2008, he worked full time and studied part time until completing his bachelor's degree and saving money to apply to graduate school in the States and cover his first-year expenses.

Dr. Sosa Castillo graduated from Purdue University in 2015, under the direction of Giulio Caviglia. He worked as a Visiting Assistant Professor at Amherst College for four years and is currently an Assistant Professor of Mathematics at Colgate University.

Dr. Sosa Castillo works on Computational and Combinatorial Commutative Algebra. His research focuses on properties of monomial and binomial ideals, and the algebraic structures associated to them. He currently studies Rees and multiRees algebras of monomial ideals, with an emphasis on monomial ideals that satisfy the strongly stable condition, also known as a Borel ideals.

Dr. Sosa Castillo credits Edray Goins, who organized the Women of Color Seminar Series during Summers at Purdue University, as an inspiration, and first mentor, on thinking about diversity issues in the mathematical sciences. It was during these seminar series where he met Pamela Harris, Candice Price, and Alejandra Alvarado, three women who have done outstanding work in promoting diversity in the mathematics profession and who Dr. Sosa Castillo thanks for their mentoring.

In February of 2016, he cofounded LATHISMS with Alexander Diaz Lopez, Pamela Harris, and Alicia Prieto Langarica, after looking for AMS resources highlighting the achievements of African American and Black mathematicians to celebrate Black History Month at their respective institutions, and realizing these resources existed neither for Black nor Hispanic/Latinx mathematicians. Dr. Sosa Castillo left his leadership position in LATHISMS in February of 2019.

“Hispanic Heritage Month is an excellent opportunity to bring to the forefront the contributions of the Hispanic/Latinx population living in the United States. It also serves to highlight the disparity of opportunities available for Hispanics and Latinx individuals who were born, or immigrated to the States as children, when compared to those of us who were raised elsewhere. It is our (the Hispanic/Latinx community in the mathematical profession) duty to pay it forward by devising, investing and participating, in programs to ensure the success of Hispanic and Latinx individuals born in the States in the mathematical sciences.”

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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