

Latinxs and Hispanics in Mathematical Sciences



Ryan Moruzzi, Jr.

Ryan, Jr is a first generation college student from Rialto, California. He grew up enjoying sports, which continues today with playing basketball during the week. Ryan has been married to his partner, Bree, for 8 years which began 15 years ago in high school. They have two kids, one age 5 and one age 3.

Ryan gained confidence in his own mathematical ability while in middle school as he helped his grandma pass algebra at a community college. Navigating his college experience, he received his masters which led him to attend the graduate math program at UC Riverside. After a teaching postdoc position at Ithaca College, he is now at California at CSU East Bay as an assistant professor.

Ryan's research is in representation theory which is part of the larger field of Algebra. Representation theory helps us better understand algebraic objects by utilizing more familiar tools from linear algebra and thus, providing more ways to attack the problems we are attempting to solve. His dissertation focused on understanding the structure of a submodule of a tensor product of irreducible highest weight representations for the current algebra in type D. More recently, he has been adapting those tools used to study the submodule of a tensor product of irreducible highest weight representations in type A and D to study a similar submodule in type B and C.

Ryan's mentoring and service work stems from his own K-12 education in a low socioeconomic, ethnically diverse school district. As a K-12 student, he was successful in mathematics, but saw many of his peers fall by the wayside. While an undergraduate, Ryan was a teaching assistant in Hacienda Heights, CA where he was involved in the students' math education in the classroom, showing them it is possible for someone with a background similar to their own to be successful with advanced mathematics. During that time, he also worked at a learning center with K-8 students that were underachieving in math.

While at UC Riverside, he became involved in the Chicano Peer Link Mentor Program, which pairs Chicano students to provide a community on campus, easing the transition into undergraduate or graduate education. He is an active mentor of the National Math Alliance, which seeks to increase the number of minority students entering PhD programs in the mathematical sciences. He organized a math circle type program in Ithaca at a local community center and at an elementary school in Rialto, CA for underserved 4th/5th graders to explore math outside the curriculum and grow the excitement of our field.

"Hispanic Heritage month is the time that we should truly reflect on those that laid the groundwork for our future. Members of our family and community that sacrificed much while contributing to our society. We should be mindful of the work they put in, and the amount of work we need to continue to put in so that others after us can rise even further."

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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