

# The World of Mathematics and Statistics

SWARTHMORE COLLEGE • DEPARTMENT OF MATHEMATICS AND STATISTICS • COLLOQUIUM SERIES 2019-2020

## Math/Stat Colloquium



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**Co-sponsored by:**

*Provost's Office,  
Educational Studies Program,  
Latin American & Latino Studies Program,  
and the  
Dean's Office of Diversity, Inclusion,  
and Community Development.*

### **A Mathematical Journey of Culture, Community, and Collaboration**

It wasn't until the last year of my graduate program that I met another Latina PhD mathematician. Before this I thought that I may be the only Latina working on a PhD in the mathematical sciences. Of course this was silly, as I could have simply searched the words "Latinas in math" to discover Ruth Gonzalez, the first US born Hispanic woman who earned a PhD in mathematics. The year? 1986 — during my lifetime.

As a first generation college student and a dreamer, the experience of not knowing people of similar cultural and socioeconomic backgrounds working in academia affected my confidence and belief that I could become a mathematician. Not feeling part of the mathematical community left me isolated and unsure of my abilities to succeed in this field. However, this isolation dissipated through my participation in conferences and programs designed to establish research collaborations, especially for scholars of color. Moreover, these experiences positively impacted my goals as an educator and have shaped my desire to build collaborative learning communities within my classroom.

In this talk I will share some of my mathematical journey and discuss programs and opportunities that helped my development as a mathematician and educator, while presenting ideas for how we can duplicate these experiences in smaller scales. I will also discuss ways to establish and maintain active collaborations that are not only mathematically productive, but are firmly based on respect, appreciation, and support. Lastly, I will share pedagogical techniques aimed to instill mathematical confidence in all students, as well as how to build learning and research communities to help develop a student culture of continuous improvement and collective responsibility.

**Tuesday, September 10th, 2019**  
**SC 101, Refreshments 4:15pm, Lecture 4:30pm**