

The Math/Stats Colloquium Department of Mathematics and Statistics San José State University





Erica Rutter UC Merced

Using Mathematics to Understand the Spread of COVID-19 on College Campuses APR 07, 2021, VIA ZOOM

Abstract: When the COVID-19 pandemic hit, college campuses nationwide switched to online and hybrid courses. At the same time, public health measures were implemented such as social distancing and encouraging mask use in public. Here we introduce the use of mathematical models to investigate the effectiveness of various nonpharmaceutical interventions on controlling COVID-19 spread on campus. The results of this model were used to inform administration regarding decisions on whether to host courses in-person or online and how many students could safely live on campus for the Fall 2020 semester at UC Merced.

Background: Calculus II and one class differential equations.

About the speaker: Erica Rutter is an Assistant Professor in the Applied Mathematics Department at UC Merced. Her research interests include applying mathematical modeling and machine learning methods to understand biological phenomena, such as cancer and toxicology.

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