

Mathematics Colloquium

Introduction to Boolean network modelling

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4:10 – 5 pm
Building 38, Room 219

Abstract

In this talk, I will begin by explaining what Boolean networks are and how they can be used to model biological systems. Using the *lac* operon as a classic example, we will explore how these models work in practice. I will then highlight some key results related to linear and conjunctive networks. In the end, I will describe a few open questions in the field, which serve as great starting points for anyone interested in exploring further.

About the speaker: Sai Bavisetty is a Postdoctoral Associate in the Department of Integrative Biology and Physiology at the University of California, Los Angeles. His research interests lie at the intersection of mathematics, biology, and data science, with a focus on gene regulatory networks and topological methods. Prior to his current role, he was a Postdoctoral Associate in the Laboratory for Systems Medicine at the University of Florida. He received his Ph.D. in Mathematics from the University of Illinois Urbana-Champaign.