

SPATIAL ECOLOGICAL DYNAMICS: INSIGHTS FROM STATISTICAL PHYSICS

Thursday
April 14, 2022

5:30 PM

Lakeside Village
Auditorium
1280 Stanford Drive

Registration Required
math.miami.edu/mz



Alan Hastings, Ph.D.

Mathematical Ecologist and Distinguished Professor Emeritus
Department of Environmental Science and Policy
University of California, Davis

Member of the National Academy of Sciences

Fellow of the American Academy of Arts & Sciences

2006 Robert H. McArthur Award from the Ecological Society of America

An appealing aspect of statistical physics models is the concept of universality, where classes of models have similar behavior. Spurred in part by an intriguing data set on individual yield of over 4000 trees in a pistachio orchard over 6 years where trees tend to mast and alternate high and low years, Dr. Hastings has been applying ideas from statistical physics toward investigating spatial synchrony in cycling ecological systems. He will cover the specific system he has been looking at, present the necessary background about the statistical physics ideas, and discuss ongoing work and questions his team is considering now. This is joint work with Jon Machta, Andrew Noble, Karen Abbott, Shadi Esmaili and Vahini Reddy Nareddy.

Hosted by Department of Mathematics

The McKnight-Zame Distinguished Lecture Series is made possible by a generous donation from Dr. Jeffrey Fuqua (Ph.D., UM, 1972). These annual lectures are named in honor of Professor James McKnight, who directed Dr. Fuqua's Ph.D. thesis, and Professor Alan Zame, who was a close mentor of Dr. Fuqua.

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