

Mathematical Models: a World of Insight

2023 Department of Mathematical Sciences

Public Lecture

Abstract

Mathematical models hold the keys to understanding some of the most interesting and complex phenomena in the natural world! In this talk, we will explore how to harness the power of mathematical modeling to answer challenging questions that may at first seem unsolvable. Can an overflowing bathtub help us figure out how to achieve herd immunity in a pandemic? Can the interaction between a rabbit and a lynx help us understand how human immune cells fight cancer? By making a few simplifying assumptions, we can draw parallels between natural systems that may appear radically different on the surface to unlock new levels of understanding the world around us.

Friday, May 5, 6:00 p.m.
Reynolds Center Auditorium
University of Arkansas
145 N Buchanan Ave
Fayetteville, AR 72701



About the Speaker

Dr. Lisette de Pillis is the Norman F. Sprague Professor of Life Sciences and a Professor of Mathematics at Harvey Mudd College. Passionate about using mathematics to seek solutions to real-world problems, she works with biologists, oncologists, biotechnology researchers, and other mathematicians to search for new ways to treat diseases that interact with the immune system, in particular cancer, HIV, SARS-CoV-2, and Type I diabetes. Dr. de Pillis has been recognized for her multidisciplinary research excellence with the Maria Goeppert-Mayer Distinguished Scholar Award from the Argonne National Laboratory. She is also a HERS-CBL Clare Boothe Luce Leadership in STEM Scholar, an Intercollegiate Biomathematics Alliance Distinguished Fellow, and a Fellow of the American Mathematical Society.

For more information call the Department of Mathematical Sciences 479-575-3351 or visit our website at aeb019.hosted.uark.edu/spring-lecture-series-public-lecture.html