# PHYSICS AND ASTRONOMY COLLOQUIUM


## Dr. Ido Golding

Baylor College of Medicine and the Center for Theoretical Biological Physics, Rice University


# "Deciphering the Stochastic Kinetics of Gene Regulation"


Abstract

Gene activity is the prime mover in the living cell, driving a cell's function at any given time. I will report on recent advances in our ability to describe the stochastic kinetics of gene regulation, achieved through the combination of single-molecule fluorescence microscopy in individual cells, novel image analysis algorithms, and theoretical modeling. We apply our approach to explore gene regulation in a number of organisms representing a gradation of complexity: E. coli bacteria, fly embryos, and mouse embryonic stem cells.


Wednesday, January 24, 2018
3:30 p.m.
BWC Building
Room A104