

Department of Applied and Computational Mathematics and Statistics Colloquium

Alexandra (Sasha) Jilkin


Molecular and Cellular Biology Department
University of Arizona

will give a lecture entitled:

Modelling Cell Polarity: Theory to Experiments

Abstract

In order to migrate, cells recruit various proteins to the plasma membrane and spatially segregate them to form a distinct front and back. I present two possible mechanisms for this symmetry breaking process, and explain how cells can regulate the transition from a homogeneous, “resting cell”, state to a spatially heterogeneous state corresponding to a polarized cell. I then focus on experimentally distinguishing between various proposed polarity models in crawling cells through perturbations of cell geometry.



**Friday, January 18, 2013
4:00 p.m. to 5:00 p.m.
127 Hayes-Healy Center**

Colloquium Tea

3:30 p.m. to 4:00 p.m. 154 Hurley Hall