

Center for Theoretical Biological Physics



SEMINAR

“Establishment and maintenance of a unique front and back during cell polarization”

Dr. Alexandra Jilkine

Applied Computational Mathematics & Statistics
University of Notre Dame

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12:30 - 1:30 PM

BRC, 10th Floor, Rm 1060 A/B

In order to migrate, cells need to recruit various proteins that regulate the cytoskeleton to the plasma membrane and spatially segregate them to form a 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.