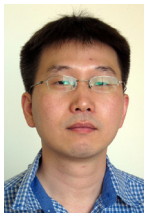
Department of Biomathematics Seminar Series:
Frontiers in Systems and Integrative Biology

Theory of Hair Bundle Motion; New Insights from the Simplest Models



Seung Ji
Graduate Student
Department of Physics & Astronomy
UCLA

Thursday, November 14, 2013
4:00 PM
13-105 Center for the Health Sciences (CHS)

ABSTRACT:
Normal Form of Hopf bifurcaiton equation(NFE) has been used to describe a Hair bundle motion. In this talk, I will show that the NFE can also describe the mode-locking mechanism of hair bundle and NFE with noise exhibits stochastic resonance. Also, I propose that Kuramoto model can describe dynamics of the coupled hair bundles and stochastic resonance can play essential role in the detection of sound.

Host: Tom Chou, Ph.D.

To receive e-mail seminar notices, contact David Tomita (dtomita@biomath.ucla.edu)