

# mbi



Mathematical Biosciences Institute  
at The Ohio State University

# 2009 SUMMER GRADUATE PROGRAM

## JULY 27-AUGUST 14, 2009

### PROGRAM DETAILS

This year the program will focus on Mathematical Ecology and Evolution. The program leaders are Ian Hamilton (Department of Ecology, Evolution and Organismal Biology, Ohio State University) and Yuan Lou (Department of Mathematics, Ohio State University).

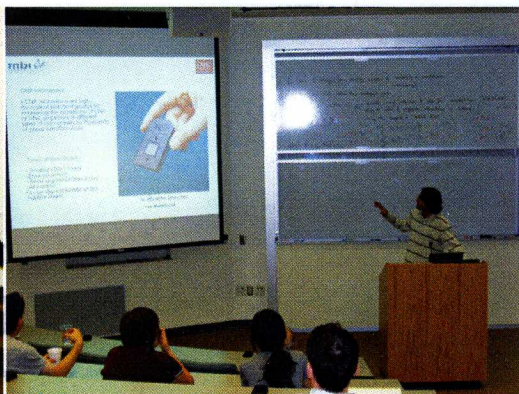
The first week is spent in a tutorial, which combines morning lectures with active learning laboratories in the afternoon. Dr. Hamilton will give five lectures on the evolutionary ecology of interacting phenotypes, including such topics as the use of game theory in evolutionary ecology, levels of selection, the evolution of cooperation, competition and predator-prey games. Dr. Lou will give five lectures on the theory of Adaptive Dynamics with applications to the evolution of dispersal, consumer-resource models and the evolution of virulence.

The following two weeks are spent working on guided team projects and participating in a mini-conference to share project results. The program is meant primarily for graduate students; college instructors and qualified undergraduates will also be considered. Team projects include the following topics:

1. Maintenance of variation in mate choice and mate quality
2. Sanctions and cooperative behavior
3. Evolution of dispersal in heterogeneous landscapes
4. Evolution of virulence

**For more details visit: <http://www.mbi.osu.edu/eduprograms/graduate2009.html>**

**To apply: <http://www.mbi.osu.edu/forms/applygrad.html>**



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