

UAH
**Distinguished
Speaker Series**

Dr. Yuan Lou

Department of Mathematics
The Ohio State University



**Finding ESS for
Movement**

DATE: November 16, 2018

TIME: 3:45 p.m. -- 4:45 p.m.

LOCATION: Shelby Center 218

How could populations move “optimally” across heterogeneous spaces? Such an “optimal” strategy is referred as an evolutionarily stable strategy (ESS) in evolution game theory. We will illustrate, via several PDE models, how to find ESS for the evolution of movement. The talk will be accessible to graduate students and senior undergraduate students.

**Refreshments will be served
at 3:15 p.m. in the Math
Office, SST 258A.**

Dr. Yuan Lou is a professor at The Ohio State University. Prof. Lou is a world-leading expert on nonlinear partial differential equations with applications to population biology. He has published over 100 research articles, which have been cited more than 4000 times in total. He proposed and studied a series of new models for population migration, the spatial spreading of epidemic diseases and marine ecology, and obtained innovative mathematical results which also have interesting biological implications. Prof. Lou has been invited to speak on his research worldwide, at institutions including Princeton University, UC Berkley, Stanford University, University of Chicago, etc. Prof. Lou serves in the editorial boards of SIAM Journal of Applied Math., Journal of Differential Equations, etc., and is also Co Editor-in-chief of Discrete and Continuous Dynamical Systems-Series B since 2009. Prof. Lou's research has been supported in numerous grants from the National Science Foundation.