1126-35-63   **Suzanne Lenhart***, University of Tennessee and NIMBioS, Knoxville, TN 37996. *Optimal control of competitive population models.*

We present an optimal control problem for a system of parabolic partial differential equations, representing two competing populations. The controls are the advective movement coefficients. The goal is to maximize a weighted sum of the populations while taking into account the cost of risks due to movement. Analysis and numerical results with heterogeneous resources will be presented (Received December 28, 2016)