1046-92-485   **Suzanne Lenhart*** (`lenhart@math.utk.edu`), University of Tennessee, Math Dept, Knoxville, TN 37996-1300. *Spatial Optimal Control in Fishery Models.*

We consider optimal fishery harvesting problems for partial differential equation models. We discuss the time dependent and time independent cases, which correspond to parabolic and elliptic models respectively. The issue of marine reserves will be presented for several objective functionals. This includes joint work with Wandi Ding, Hem Raj Joshi, Ta Herrera and Mike Neubert. (Received September 04, 2008)