1044-92-19   **Suzanne Lenhart*** (`lenhart@math.utk.edu`), University of Tennessee, Math Dept, Knoxville, TN 37996-1300. *Optimal Control in an Epidemic Model of Rabies in Raccoons.*

We discuss a framework to analyze spatial controls for vaccine distribution as it impacts the spread of rabies among raccoons. The control gives amount and location of the food packets containing vaccine. The goal is to minimize the number of infected raccoons and the cost of distributing the packets. The model has time and space as underlying variables and the spatial location enters in a discrete way.   (Received June 26, 2008)