## 962-60-981 Kavita Ramanan\*, Room 2C-319, Bell Labs, 600 Mountain Avenue, New Providence, NJ 07974, and Paul Dupuis. Optimal Fluid Control Problems and Large Deviations of Stationary Reflected Brownian Motion.

We develop explicit formulas for the solution of certain optimal control problems on domains with corners. These problems arise, for example, in the optimal control of a law of large numbers approximation of a stochastic network. Given a convex cost function on the controls, one obtains a representation for the minimum cost to drive the controlled process to the origin. We will also discuss interesting connections between these problems and representations for the tails of invariant distributions of a class of constrained diffusions such as reflected Brownian motion. (Received September 29, 2000)