Abstract
Given some observations downstream can one determine the location and intensities of point sources of a hazard (pollutant chemical or biological)?

The unknown concentrations are governed by the diffusion-advection partial differential equation. In this study the corresponding algebraic equation is considered. The fixed location problem is considered using reordering, the Schur complement and nonnegative least squares. The variable location problem is attacked using simulated annealing. The complexities of controlling aquatic populations, which are nonlinear, time dependent and have multiple sources, will be illustrated.

Refreshments will be served in Daniels Hall Room 401 starting at 4:00 p.m.