Topics for 2010
Year in Operations Research and Statistics

Clustering Microarray Data
Prof. Johanna Hardin, Pomona College*
Microarray technology has revolutionized genetics by measuring thousands of genes simultaneously. We will construct clustering algorithms for microarray data which are designed to ignore noise and highlight data values which show strong patterns.

Disrupting Terrorist Networks
Prof. Susan Martonosi, Harvey Mudd College*
We will study terrorist network disruption strategies to increase communication through a key member of the network, making that member more visible to intelligence officials.

Game Theory and School Choice
Prof. Gizem Karaali, Pomona College*
We will use Mechanism Design, a subfield of Game Theory, to examine and improve upon mechanisms currently employed to address the School Choice Problem.

MCMC for Spatial Data
Prof. Mark Huber, Claremont McKenna College**
Spatial data could be locations of cities in a country or trees in a forest. Models for these data sets are often understood by using Markov chain Monte Carlo (MCMC) methods. This project will consider new MCMC algorithms and test their effectiveness.

Application information can be found at http://ccms.claremont.edu/REU

* DMS 0755540  ** DMS 0548153

Application Deadline
March 1, 2010