

Claremont Colleges 2010 REU



Claremont Colleges 2010 REU June 7-July 31

In addition to working on exciting research projects in OR and statistics, students will participate in workshops designed to introduce them to various aspects of a career in the mathematical sciences. A weekly speaker series and numerous social activities will round out the program.

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

*DMS 0755540 **DMS 0548153

**Application Deadline
March 1, 2010**



National Science Foundation
WHERE DISCOVERIES BEGIN

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.

Claremont McKenna

Harvey Mudd

Pitzer

Pomona

Scripps