Explorations in Statistics Research:

An *Undergraduate* Summer Program

June 12-18, 2011
Columbia University, New York

Applications due: March 9, 2011

Applications and reference forms available at:

http://exploring-stat-research.org

Organizers

Mark Hansen, UCLA David Madigan, Columbia University Deborah Nolan, UC Berkeley Duncan Temple Lang, UC Davis



photo by Eileen Barroso

Today, almost every aspect of our lives is "rendered" in data that tend to be massive in size, dynamic in character, and replete with rich structures. The advent of these enormous repositories of information presents us with an interesting challenge: how can we represent and interpret such complex, abstract and often socially important data?



photo by Arnie Itzkowitz

The Explorations in Statistics Research workshop is designed to introduce undergraduates to the exciting research being done in statistics - the science of data.

Over the seven-day program, we will explore scientific questions using statistical approaches ranging from simple summaries to more sophisticated modeling techniques. We will explore relevant data to better understand three different scientific applications. Past topics have been in the following areas:

- Medical and health sciences
- Astrophysics and cosmology
- Earth and Climate sciences
- Political science and public policy

Throughout, we will emphasize both computation and visualization, illustrating the character of modern data analysis. Students will gain important skills for performing fundamental data manipulations, conducting exploratory analyses, and creating informative visualizations.

Contact

<u>exploring.stat.research@gmail.com</u> for more information about the program.

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