# James Madison University SUMS Conference 2007

The 2007 Shenandoah Undergraduate Mathematics and Statistics Conference is a one-day undergraduate research conference featuring:

- undergraduate contributed talks
- student poster sessions
- two invited addresses
- academic and industry panels
- an AMC workshop

Students who have completed original research in mathematics or statistics while an undergraduate are invited to contribute 15 minute talks.

Undergraduate and high school students are invited to present research or expository posters on any mathematical topic.

Registration and abstract submission deadline is October 1, 2007. Modest travel support is available on a rolling application basis.

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### **Opening Speaker: Ann Trenk, Wellesley College**

Groovy Graphs: Coloring, Scheduling and Solving Mysteries

We will explore graph coloring and some of its applications, and show how graph theory can be useful in problem solving. In one of our problems, six professors are suspects in a library theft. We'll use their testimony together with some graph theory to identify the guilty party.

## Saturday October 13 2007



### **Closing Speaker: Mike Krebs, Cal State Los Angeles**

### Beaucoup de Sudoku

When are two "mini-Sudokus" are essentially the same? To answer this question, we make use of Lagrange's theorem, equivalence relations, and Burnside's Lemma, as well as the ubiquitous technique of finding invariants to distinguish equivalence classes of objects. www.math.jmu.edu/SUMS Dr. Elizabeth Brown Dr. Laura Taalman