



# Combinatorics: Probabilistic Techniques and Applications

● **October 5 – 9, 2009**

**ORGANIZING COMMITTEE:** Alan Frieze (Carnegie-Mellon University), Nati Linial (Hebrew University), Angelika Steger (ETH Zürich), Benjamin Sudakov (UCLA), Prasad Tetali (Georgia Institute of Technology)

## Scientific Overview

One of the exciting phenomena in mathematics in recent years has been the wide-spread and surprisingly effective use of probabilistic methods in diverse areas. The probabilistic approach has been strikingly successful in Combinatorics, Graph Theory, Combinatorial Number Theory, Optimization and Theoretical Computer Science. This workshop will focus on several main research directions of Probabilistic Combinatorics, including the application of probability to solve combinatorial problems, the study of random combinatorial objects and the investigation of randomized algorithms.

## Confirmed Speakers

**Noga Alon** (Tel Aviv University); **József Balogh** (University of Illinois at Urbana); **Tom Bohman** (CMU); **Béla Bollobás** (University of Cambridge); **Fan Chung-Graham** (UC, San Diego); **Amin Coja-Oghlan** (University of Edinburgh); **Artur Czumaj** (University of Warwick); **Uriel Feige** (Weizmann Institute of Science); **Alan Frieze** (CMU); **David Gamarnik** (MIT); **Jeff Kahn** (Rutgers); **Michael Krivelevich** (Tel Aviv University); **Thomas Liggett** (UCLA); **Eyal Lubetzky** (Microsoft Research); **Michael Molloy** (University of Toronto); **Rob Morris** (University of Cambridge); **Yuval Peres** (Microsoft Research); **Sebastien Roch** (Microsoft Research); **Alexander Scott** (University of Oxford); **Angelika Steger** (ETH Zürich); **Prasad Tetali** (Georgia Institute of Technology); **Van Vu** (Rutgers University); **Nick Wormald** (University of Waterloo)

## Workshop Schedule

This workshop is part of the long program “Combinatorics: Methods and Applications in mathematics and Computer Science.”

- Tutorials, September 9 – 16, 2009
- **Workshop 1: Probabilistic Techniques and Applications, October 5 – 9, 2009**
- Workshop 2: Combinatorial Geometry, October 19 – 23, 2009
- Workshop 3: Topics in Graphs and Hypergraphs, November 2 – 6, 2009
- Workshop 4: Analytical Methods in Combinatorics, Additive Number Theory and Computer Science, December 1 – 4, 2009
- Culminating Workshop at Lake Arrowhead Conference Center, December 6 – 11, 2009

## Participation

Additional information about this workshop including links to register and to apply for funding, can be found on the webpage listed below. Encouraging the careers of women and minority mathematicians and scientists is an important component of IPAM's mission, and we welcome their applications.

● [www.ipam.ucla.edu/programs/cmaws1](http://www.ipam.ucla.edu/programs/cmaws1)



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