# Combinatorics Colloquium

## *Extremal problems for random discrete structures*

Mathias Schacht

University Hamburg

**Abstract:** We study thresholds for extremal properties of random discrete structures. We determine the threshold for Szemeredis theorem on arithmetic progressions in random subsets of the integers and its multidimensional extensions and we determine the threshold for Turan-type problems for random graphs and hypergraphs. In particular, we verify a conjecture of Kohayakawa, Luczak, and Rodl for Turan-type problems in random graphs. Similar results were obtained by Conlon and Gowers.

Tuesday, March 16, 2010, 4:00 pm
Mathematics and Science Center: W301

# Mathematics and Computer Science
## Emory University