Seminar on Combinatorial Computing
May 3, Wednesday, 6:20 p.m.
Room 3212, Graduate Center
365 Fifth Avenue, New York

Games on Random Structures

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Abstract

Games are a useful tool for classifying structures, such as bit strings and graphs. This talk will focus on randomly-generated bit strings and graphs, what these structures "look like," and some standard game techniques used in computer science. For example, we can ask what fraction of graphs with 3 vertices contains a triangle? What is the fraction for graphs with 4 vertices? What happens to this fraction as the number of vertices gets large? The answer changes, in surprising ways, if we allow the edges to occur randomly (i.e. with probability that depends on the number of vertices). We will discuss these results of Fagin, Spencer, and Shelah, and recent work on other important structures in computer science such as bit strings and trees.

For further information contact Janos Pach at pach@cims.nyu.edu,
or visit our website: http://math.gc.cuny.edu/Seminars/Combinatorics.html