

Department of Applied Mathematics and Statistics
The Johns Hopkins University

SEMINAR

Edward Scheinerman
Dept. of Applied Mathematics & Statistics
The Johns Hopkins University

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304 Whitehead Hall
Refreshments: 3:30 p.m.
Seminar: 4:00 p.m.

MODELS OF RANDOM GRAPHS: EDGE, VERTEX, AND VERTEX-EDGE

ABSTRACT

The classic model of *edge* random graphs, due to Erdős and Rényi, puts all the random action “in” the edges; vertices are just placeholders. On the other hand, *vertex* random graphs place their randomness “in” the vertices, and edges are present or absent deterministically based on the structures associated with their endpoints. And finally *vertex-edge* random graphs are a generalization of both.

Our goal is to show that the vertex random graph model is just as general as the allegedly more generous vertex-edge random graph model, and to use this fact for applications of U-statistics to various problems. However, a nasty unmeasurable set may block our path.