

## Combinatorics Seminar

### *Random Triangle Removal*

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**Abstract:** We consider the following random process. Start with the complete graph on  $n$  vertices. Choose a triangle  $T$  uniformly at random from the collection of all triangles in the graph and remove the edges of  $T$  from the graph. Repeat this operation until the graph has no more triangles.

Bollobás and Erdős conjecture that with high probability this process terminates at a graph that has  $\Theta(n^{3/2})$  edges. In this talk we present the motivation for this conjecture and outline an argument that gives an approximate solution. Applications of this result and directions for future work will also be discussed.

Joint work with Alan Frieze and Eyal Lubetzky

Monday, March 6 at 2:00 PM in SEO 612
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