

Meeting: 1001, Evanston, Illinois, SS 2A, Special Session on Extremal Combinatorics

1001-05-29 **Ryan Martin*** (rymartin@iastate.edu), 400 Carver Hall, Department of Mathematics, Iowa State University, Ames, IA 50011-2064, and **Tom Bohman, Alan Frieze, Miklos Ruszinko** and **Cliff Smyth**. *It's raining hyperedges: Online intersecting hypergraphs beyond the threshold.*

Consider a fixed vertex set $[n]$ and integer r . Take r -uniform hyperedges uniformly at random so that, at each stage, the hypergraph is intersecting. In a previous paper, it was established that, with high probability, this is a maximum-sized family (as provided by the classic Erdős-Ko-Radó theorem) if $r \ll n^{1/3}$ and, with high probability, is not maximum-sized if $r \gg n^{1/3}$. In fact, the probability that the size is maximum obeys a sharp threshold for r proportional to $n^{1/3}$.

In this talk, we investigate the case $n^{1/3} \ll r \ll n^{5/12}$ and show that, with high probability, the hypergraph that is formed in this case can be described explicitly. (Received July 05, 2004)