Loose paths in random ordered hypergraphs

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Consider the random r-uniform hypergraph $H = H^{(r)}(n, p)$. An ordered loose path is a sequence of edges E_1, E_2, \ldots, E_ℓ of H such that $\max\{j \in E_i\} = \min\{j \in E_{i+1}\}$ for $1 \le i < \ell$. In this talk we establish fairly tight bounds on the length of the longest ordered loose path in H that hold with high probability.

This is a joint work with Alan Frieze and Wesley Pegden.