Institut für Diskrete Mathematik

Combinatorics Seminar

Friday 15th October 14:15

Online meeting (Webex)

Multitrees in random graphs

Alan Frieze

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Let $N = \binom{n}{2}$ and $s \geq 2$. Let $e_{i,j}$, $i = 1, 2, \ldots, N$, $j = 1, 2, \ldots, s$ be s independent permutations of the edges $E(K_n)$ of the complete graph K_n. A MultiTree is a set $I \subseteq [N]$ such that the edge sets $E_{I,j}$ induce spanning trees for $j = 1, 2, \ldots, s$. In this paper we study the following question: what is the smallest $m = m(n)$ such that w.h.p. $[m]$ contains a multitree. We prove a hitting time result for $s = 2$ and an $O(n \log n)$ bound for $s \geq 3$.

Joint work with Wesley Pegden

Meeting link:

https://tugraz.webex.com/tugraz/j.php?MTID=ma70275cd258e7748417214793956c7bf

Meeting number: 188 980 7021

Password: ahMZ84fJYQ2

Joshua Erde, Mihyun Kang