Institut für Diskrete Mathematik

Combinatorics Seminar

Friday 29nd October 14:15

Online meeting (Webex)

Satisfiability of random linear systems

Amin Coja-Oghlan

(TU Dortmund)

For a sparse random matrix model with given numbers of non-zero entries in the rows and columns we identify a sufficient and very nearly necessary condition for the matrix having full row rank whp. The condition comes exclusively in terms of the degree distributions and holds for matrices with independent entries over finite fields. As an implication we obtain a full rank condition for random 0/1 matrices over the rationals. Joint work with Max Hahn-Klimroth, Joon Lee, Noela Muller, Maurice Rolvien.

Meeting link:

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

Meeting number: 188 980 7021

Password: ahMZ84fJYQ2

Joshua Erde, Mihyun Kang