

Institut für Diskrete Mathematik

Combinatorics Seminar

Friday 12th January 12:30

Online meeting (Webex)

Counting graphic sequences via integrated random walks

PAUL BALISTER

(University of Oxford)

Given an integer n , let $G(n)$ be the number of integer sequences $n - 1 \geq d_1 \geq d_2 \geq \dots \geq d_n \geq 0$ that are the degree sequence of some graph. We show that $G(n) = (c + o(1))4^n/n^{3/4}$ for some constant $c > 0$, improving both the previously best upper and lower bounds by a factor of $n^{1/4+o(1)}$. The proof relies on a translation of the problem into one concerning integrated random walks.

Joint work with Serte Donderwinkel, Carla Groenland, Tom Johnston and Alex Scott.

Meeting link:

<https://tugraz.webex.com/tugraz/j.php?MTID=mab523a645de428d5301998280dc510ed>

Joshua Erde, Mihyun Kang