

Institut für Diskrete Mathematik

## Seminar für Kombinatorik und Optimierung

Friday 22nd January 14:15

Online meeting (Webex)

### Thresholds

BHARGAV NARAYANAN

(Rutgers University)

I'll discuss our recent proof of a conjecture of Talagrand, a fractional version of the “expectation-threshold” conjecture of Kahn and Kalai. As a consequence of this result, we resolve various (heretofore) difficult problems in probabilistic combinatorics and statistical physics. Time permitting, I'll also outline how these methods can be used to determine the threshold of the square of the Hamilton cycle, a stubborn hitherto open problem in random graph theory.

Meeting link:

<https://tugraz.webex.com/tugraz/j.php?MTID=m1cd0904285a119237aa9a7ce985ad803>

Meeting number: 137 149 1265

Password: JYc3B3dunG2

Joshua Erde, Mihyun Kang