

Controllability and matchings in random bipartite graphs with a fixed degree distribution

Stefanie Gerke
Royal Holloway University of London

Abstract

We consider maximum matchings in random bipartite graphs with a fixed degree distribution. This extends and simplifies work by Bohman and Frieze [1] and is motivated by a question of controllability of networks recently considered by Liu, Slotine, and Barabási [2]. This is joint work with Paul Balister.

[1] T. Bohman, A. Frieze, Karp-Sipser on random graphs with a fixed degree sequence, *Combinatorics, Probability and Computing* **20** (2011) pp. 721–741.

[2] Y.-Y. Liu, J.-J. Slotine, A.-L. Barabási, Controllability of complex networks, *Nature* **473** (2011) pp. 167–173.