Séminaire de Probabilités et Statistiques

Mardi 25 avril à 14h00
Laboratoire Dieudonné
Salle de Conférences

Ross Kang
(Radboud Univ. Nijmegen)

Resilience of the chromatic number

For p bounded away from 1 and $np \to \infty$, the asymptotic value of the chromatic number of the binomial random graph $G(n, p)$ is resilient to the removal of a subgraph H with $o(n \log(np))$ edges. This is best possible. Our work is counterpoint to work of Sudakov and Vu (2008) and Alon and Sudakov (2010), which was on chromatic resilience for $G(n, p)$ subject to the addition, rather than removal, of edges.
Joint work with Colin McDiarmid.