ICM 1998, Berlin, Aug. 18–27

Abstracts of Short Communications and Posters

Section:

13. Combinatorics

1991 MS Classification: 05C80
Riordan, Oliver, Cambridge University, England
Spanning subgraphs of random graphs
Let G_p be a random graph on 2^d vertices where edges are selected independently with a fixed probability $p > 1/4$, and let H be the d-dimensional hypercube Q^d. We answer a question of Bollobás by showing that, as $d \to \infty$, G_p almost surely has a spanning subgraph isomorphic to H. In fact we prove a result which can be applied to many other graphs H, improving also previous results for the lattice, i. e., the 2-dimensional square grid.