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Local resilience of random graphs with respect to universality for almost spanning subgraphs

The local resilience of a graph G is a measure for robustness with respect to a given global property of G . If we require that G is not only robust but sparse, then the random graph $G(n,p)$ is a natural choice. We consider $G(n,p)$ with $p=c(\log n/n)^{1/D}$ and show that it is robust for almost spanning bipartite subgraphs H with maximum degree D and sublinear bandwidth in the following sense. If an adversary deletes arbitrary edges in $G(n,p)$ such that each vertex loses somewhat less than half of its neighbours, then the resulting graph still contains a copy of H .

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