Hamiltonian Cycles in Dirac Graphs

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Abstract

We prove that the number of Hamiltonian cycles in an n-vertex graph with minimum degree at least $n/2$ is at least $\frac{n!}{(2+o(1))^n}$. This confirms a conjecture of G. Sárközy, S. Selkow, and E. Szemerédi. Key ingredients in the proof include entropy and martingales. Joint with J. Kahn.

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