

Hamiltonian Cycles in Dirac Graphs

Bill Cuckler *

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.

*Rutgers University, Piscataway, NJ 08854, USA, E-mail: cuckler@math.rutgers.edu