ON THE NUMBER OF HAMILTONIAN CYCLES IN HAMILTONIAN DENSE GRAPHS

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Let G be a Hamiltonian graph with n vertices and $Cn(n-1)/2$ edges, where $3/4 < C \le 1$. We show that G contains at least $(C_1 n)^{C_2 n}$ Hamiltonian cycles, where C_1 and C_2 are some constants depending on C, and prove an analog of Dirac's theorem for graphs with prescribed edges.

Key words and phrases: Hamiltonian graph, Hamiltonian cycle, Dirac's theorem.

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