

Vacek, Pavel**Bounds of lengths of open Hamiltonian walks.** (English) Zbl 0782.05056

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An open sequence of edges passing through each vertex of a connected graph is called an open walk and any open walk of minimal length is called an open Hamiltonian walk. Denote by l_G the length of open Hamiltonian walks in the graph G . It is proved that if k is the minimal number of edges which we have to add to a connected graph G_1 of order $n \geq 4$ to obtain a graph containing a Hamiltonian path ($k \leq n - 3$), then $l_{G_1} \leq 2(n - 1) - \frac{n+k-1}{k+1}$. It is also shown that if G is obtained from G_1 by omitting a unique edge, then $l_G \leq \frac{2l_{G_1}+1}{3}$.

Reviewer: [H.Li \(Orsay\)](#)**MSC:**

05C45 Eulerian and Hamiltonian graphs

Cited in 6 Documents**Keywords:**[Hamiltonian walks](#); [bounds](#); [sequence of edges](#); [open walk](#); [Hamiltonian path](#)**Full Text:** [EMIS](#) [EuDML](#)