Zbl 129.39904

Erdős, Pál; Pósa, L.

On independent circuits contained in a graph (In English)

Can. J. Math. 17, 347-352 (1965). [0008-414X]

Let r(k) denote the least integer r such that if G is any graph containing a maximum of k node-disjoint circuits then there exists a set of r nodes of G such that every circuit of G passes through at least one of these nodes. Bollbás (unpublished) has shown that r(1) = 3. (The complete 5- graph shows that $r(1) \geq 3$.) In the present paper it is shown that there exist absolute constants c_1 and c_2 such that $c_1k\log k < r(k) < c_2k\log k$.

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Classification:

05C35 Extremal problems (graph theory)