

Zbl 422.05039

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Some extremal problems on families of graphs and related problems. (In English)

Comb. Math., Proc. int. Conf., Canberra 1977, Lect. Notes Math. 686, 13- 21 (1978).

[For the entire collection see Zbl 384.00005.]

The author proves the following two theorems: If a graph G_n does not contain a cycle C_{2k+1} for $3 \leq k \leq r$ then G_n contains at least $(1-\varepsilon)n^{1-1/r}$ independent vertices if $n > n_\varepsilon$; and, there is a positive function $f(c)$ such that if a graph G_n has at least cn^2 edges, then it contains a refinement of a complete k -graph where $k > f(c)n^{1/2}$. He also summarizes the progress made on a number of open extremal problems.

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Classification:

05C35 Extremal problems (graph theory)

00A07 Problem books

Keywords:

cycle; independent vertices; refinement