Zbl 858.05057

Erdős, Paul; Reid, Talmage James; Schelp, Richard; Staton, William Sizes of graphs with induced subgraphs of large maximum degree. (In English) Discrete Math. 158, No.1-3, 283-286 (1996). [0012-365X]

The following conjecture is considered: Let $n \ge k \ge j \ge 1$ and $n \ge 3$, let G be a graph with n+k vertices in which every n+j vertices induce a subgraph which contains a vertex of degree at least n. Then G has at least $(k-j+1)n+\binom{k-j+1}{2}$ edges.

The authors prove that this conjecture holds for $j \geq 2$ and $n \geq \max\{j(k-j), \binom{k-j+2}{2}\}$.

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Classification:

05C35 Extremal problems (graph theory)

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