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Coverings of r -graphs by complete r -partite subgraphs. (In English)

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A relationship between the following two extremal problems is established: Let G be an r -uniform hypergraph and $f(G)$ be the minimum number of complete r -partite graphs necessary to cover all edges of G . Set $f(r, n) = \max f(G)$, where the maximum runs over all r -uniform hypergraphs on n vertices. On the other hand, denote by $T(r, s, n)$, $r < s < n$, the Turán number. The authors show that, for any $r > 2$, $f(r + 1, n) = (1 - o(1))T(r, r + 1, n)$.

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05C35 Extremal problems (graph theory)

05C65 Hypergraphs

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