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Minimal decompositions of hypergraphs into mutually isomorphic subhypergraphs. (In English)

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The authors tackle the following problem: given a family $\{H_1, \dots, H_k\}$ of r -uniform hypergraphs, each with the same number of edges, find the smallest t such that each H_i can be decomposed into mutually isomorphic subhypergraphs E_{ij} , $1 \leq j \leq t$. This study extends the authors' previous work on the case $r = 2$ [Combinatorica 1, 13-24 (1981)]. The main techniques used are interesting counting arguments. The results obtained are good but not sharp, so many open problems remain.

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Classification:

05C65 Hypergraphs

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