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Small transversals in uniform hypergraphs. (In English)

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Suppose that in a collection H of r -element sets, for any p sets there is a set of at most t elements that meets all of them. We study the following problem: find a sharp upper bound $f(r, p, t)$ on the cardinality of a smallest set meeting all members of H . We determine the exact values of $f(r, p, 2)$ for $p \leq 6$ and every r , of $f(r, t + 1, t)$ and $f(r, t + 2, t)$ for every r and t , and prove that $f(r, p, t) = O(rp^{-1/t})$ for every fixed t when $r, p \rightarrow \infty$.

Classification:

05C65 Hypergraphs

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