

Frankl's Union-Closed Family Conjecture

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A family, F , of sets is "union-closed" if the union of any two sets of F must also be a set of F . The conjecture that "in every such finite family there exists some element x such that x is an element of at least half the sets of F " has been attributed to Peter Frankl (1970). Since then there have been numerous papers that asymptotically (but not quite) provide a proof of this conjecture. In this presentation we will definitively settle this question — yes or no.