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Separability properties of almost-disjoint families of sets. (In English)

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Several results are proved on almost disjoint sets and many new problems are raised. Among others the authors prove the following conjecture of *Hechler*: Let F be a family of infinite sets $\{A_\alpha\}$ satisfying $|A_{\alpha_1} \cap A_{\alpha_2}| < \aleph_0$. Assume further that the family has chromatic number > 2 (or does not have property B) i.e. if a set has a non-empty intersection with every A , then it contains at least one of them. Then there must be two A 's which are disjoint. Further in general it is not true that there are three A 's which are pairwise disjoint.

Classification:

05A05 Combinatorial choice problems

04A20 Combinatorial set theory