

Construction of completely separable MAD family under the assumption $\mathfrak{s} \leq \mathfrak{a}$ and its relationship with almost disjoint refinement of systems of subsets of ω on the one side and with topological properties of ω^* on the other. It is shown that the existence of almost disjoint refinement for complements of dense ideals of subsets of ω is equivalent with the assumption that every nowhere dense set in ω^* is 2^ω -set. The existence of completely separable MAD family implies these two assumptions. Its construction is proceeded by means of combinatorics properties of systems of sets defined on ω .