

Fin-intersecting almost disjoint families

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John Ginsburg's asked questions about the relations between the pseudocompactness of the Vietoris hyperspace of a given topological space and the pseudocompactness of its powers. This problem has been studied restricted to the realm of Isbell-Mrówka spaces. We say that an almost disjoint family is said to be pseudocompact if the Vietoris Hyperspace of its Isbell-Mrówka space is pseudocompact. In the realm of these spaces, Ginsburg's questions become questions about the existence of pseudocompact MAD families. The first part of the talk will introduce the history behind these problems.

To further study this problem we proposed a new class of almost disjoint families called fin-intersecting almost disjoint families. Every fin intersecting MAD family is pseudocompact but, consistently, not all pseudocompact MAD families are pseudocompact. We use this new concept to obtain new (consistent) examples of pseudocompact MAD families. .

(joint work with Cesar Corral)