# RESOLVABILITY OF TOPOLOGICAL SPACES

A topological space $X$ is called $\lambda$-*resolvable*, where $\lambda$ is a (finite or infinite) cardinal, if $X$ contains $\lambda$ many pairwise disjoint dense subsets. $X$ is *maximally resolvable* if it is $\Delta(X)$-resolvable, where

$$\Delta(X) = \min\{|G| : G \text{ open}, G \neq \emptyset\}.$$

The expectation is that "nice" spaces should be maximally resolvable, as verified e.g. by the well-known facts that both metric and linearly ordered spaces, as well as compact Hausdorff spaces, are maximally resolvable. There is, however, a countable regular (hence "nice") space with no isolated points that is not even 2-resolvable.

In this talk we present resolvability results about spaces that are more general than the above. On one hand, we consider the class of monotonically normal spaces that includes both metric and linearly ordered spaces, on the other we consider spaces with properties that are more general than compactness, namely Lindelöfness, countable compactness, and pseudocompactness.

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