Tverberg-type theorems and intersection patterns

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Abstract

Tverberg’s theorem says that a set with sufficiently many points in $\mathbb{R}^d$ can always be partitioned into $m$ parts so that the $(m - 1)$-simplex is the (nerve) intersection pattern of the convex hulls of the parts. In this talk we will talk about Intersection patterns and how Tverberg’s theorem is but a special case of a more general situation where other simplicial complexes arise as nerves.