Tverberg type Theorems: The study of partitions of points as simplicial complexes

Déborah Oliveros Universidad Nacional Autónoma de México, México

Tverberg Theorem is one of the most beautiful theorems in discrete geometry. This theorem could be interpreted as a Ramsey type result, as follows: If you have sufficiently many points in the Euclidean space, there exists always a way of partitioning them in such a way that the intersection pattern is a complete graph. We will discuss possible ways of generalizing this theorem as well as some interesting applications.