

1121-05-76

Florian Frick* (ff238@cornell.edu). *Intersection Patterns of Finite Sets and of Convex Sets.*

The combinatorics of missing faces of a simplicial complex give nontrivial information about whether it is embeddable into d -space, and more generally whether every continuous map to d -space exhibits a point of r -fold intersection. This can be used to relate intersection patterns of finite sets as in Kneser's conjecture to intersection patterns of convex sets as in Tverberg's theorem and its continuous generalizations. We will present a theorem that is a common generalization of results from Tverberg-type theory and lower bounds for chromatic numbers of uniform intersection hypergraphs, extending work of Sarkaria. (Received July 11, 2016)