
KAROLY BEZDEK, University of Calgary

Non-separable arrangements revisited

A problem posed by Erdős in 1945 initiated the study of non-separable arrangements of convex bodies. A finite family of convex bodies in Euclidean d -space is called a non-separable family (or NS-family) if every hyperplane intersecting their convex hull also intersects at least one member of the family. Minimal coverings of NS-families of positive homothetic convex bodies have been investigated in several recent works. This lecture extends those results to weakly non-separable families and weakly k -impassable families of convex d -polytopes for $0 < k < d - 1$. This is a joint work with Z. Lángi (Rényi Inst. and Univ. of Szeged, Hungary).