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Boundedly Polyhedral Sets and F-Simplices

Generalizing the concept of Choquet simplex, we study a new class of convex solids K in $\mathbb{R}^n$ which satisfy the following condition: all n-dimensional intersections of the form $K \cap (x + K)$, $x \in \mathbb{R}^n$, belong to at most finitely many homothety classes of convex solids. Our description of this class uses new results on boundedly polyhedral sets.

Keywords: Convex set, Choquet simplex, homothety class, polyhedron.

MSC: 52A20.