

M-decomposable convex sets

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Abstract

A set K in \mathbb{R}^n is called *M-decomposable* if it can be expressed as the vector sum $K = C + D$, where C is a compact convex set and D is a closed convex cone with apex o . We will discuss some known and new results on geometric properties of M-decomposable sets, which include the extreme structure, closedness of orthogonal projections, and asymptotic planes.

Keywords: closed set, compact set, convex set, *M*-decomposable.