

CONVEX SETS AND HALFSPACES

Why

Main Result

Corollary 1. Let $(b_i)_{i\in I}$ be a family in \mathbb{R}^n and $(\beta_i)_{i\in I}$ be a family in \mathbb{R} . The set

$$\{x \in \mathbf{R}^n \mid \langle x \rangle b_i \leq \beta_i \text{ for all } i \in I\}$$

is convex.

A *polyhedral* convex set is one which can be expressed as the intersection of a finite family of closed halfspaces.

