



## Convex Sets and Halfspaces

### 1 Why

### 2 Main Result

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

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

*is convex.*

A *polyhedral* convex set is one which can be expressed as the inter-

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