[12pt,a4paper]report [utf8]inputenc [french]babel [T1]fontenc amsmath amsfonts amssymb graphicx fourier [left=2.5cm,right=2.5cm,top=2cm,bottom=2cm]geometry Thotime de Charrin Convex Optimization - HW1 document Exercise 1 1) For a given \subset , a x_i is the intersection of two halfspaces $x \in R^n | x_i \leq \beta_i$ and $x \in R^n | x_i \geq \alpha_i$