

Model examples. Passing to the three-dimensional system

$$\begin{cases} \dot{x}_1 = x_2 + v \\ \dot{x}_2 = -kx_1 + u \\ \dot{c} = 0 \end{cases}$$

$$|u| \leq 1, \quad |v| \leq 1$$

$$\gamma(x) = \max\{|x_1|, |x_2|\}$$

$$M = \{(x_1, x_2, c) : \gamma(x) \leq c \leq c^*\}$$