Path-following, economic nonlinear model predictive control in Python

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Path-following Algorithm

Simple Example Problem

$$\begin{aligned} \min_{x \in \mathbb{R}^2} \quad & p_1 x_1^3 + x_2^2 \\ \text{s.t.} \quad & x_2 - e^{-x_1} \geq 0, \\ & x_1 \geq p_2 \end{aligned} \tag{1}$$

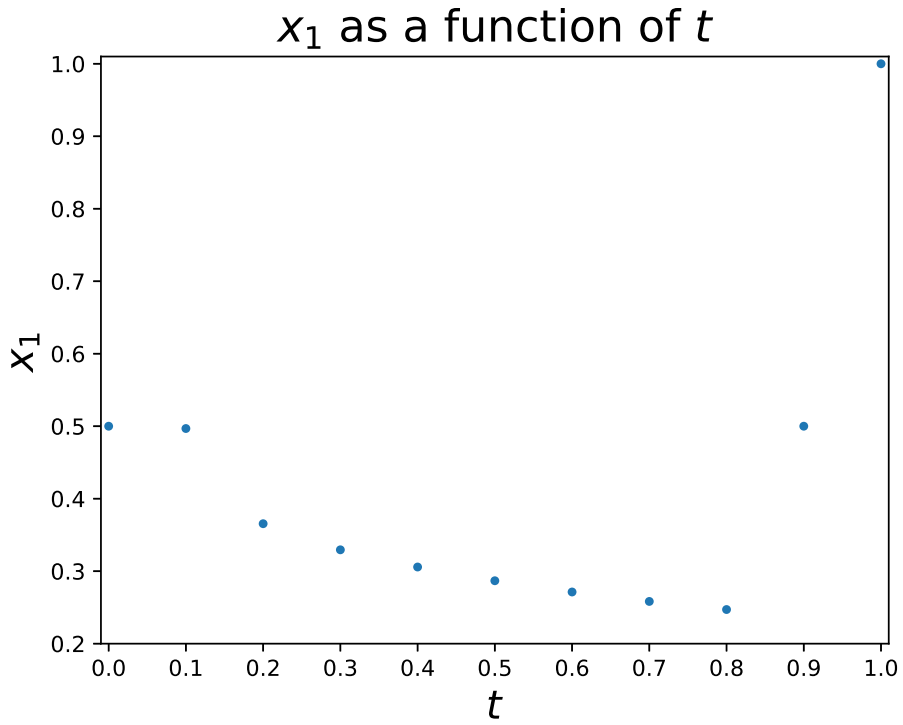

Figure: Illustration of how x_1 changes over time using the path following algorithm