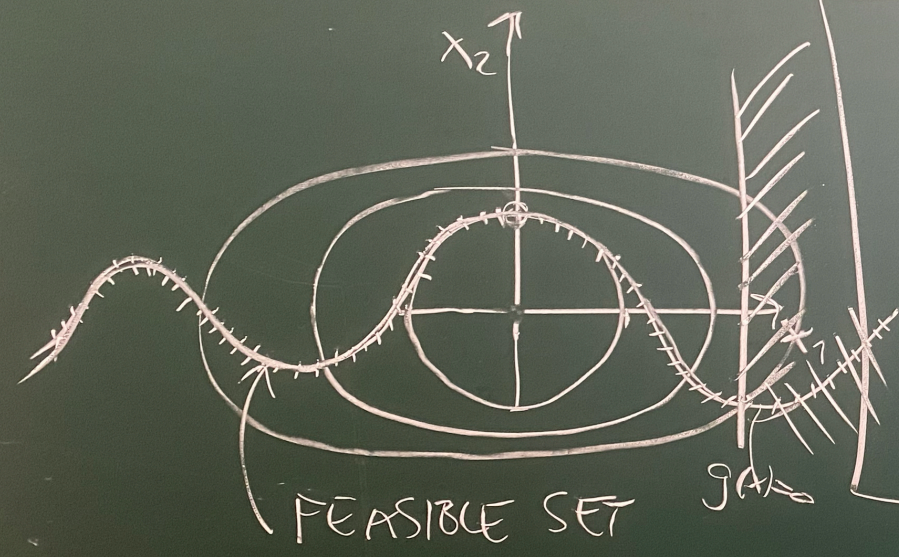


$$x = \begin{pmatrix} x_1 \\ x_2 \end{pmatrix}, \quad f(x) = x_1^2 + x_2^4, \quad g(x) = \cos(x_1) - x_2 \quad (m=1)$$

$$h(x) = 2 - x_1 \quad (p=1)$$



$$\begin{aligned} \min \quad & f(x) \\ \text{s.t.} \quad & g(x) = 0 \\ & h(x) \geq 0 \end{aligned}$$

$$f: \mathbb{R}^n \rightarrow \mathbb{R}$$

$$g: \mathbb{R}^n \rightarrow \mathbb{R}^m$$

$$h: \mathbb{R}^n \rightarrow \mathbb{R}^p$$