

EXAMPLE 2

$$\ddot{x} - 0.025\dot{x} + 1.3x = u,$$

$$\ddot{y} + y = v$$

$$t \in [0, 16], \quad x, y \in \mathbb{R}^2,$$

$$u \in P, \quad v \in Q,$$

$$P = Q = \left\{ v : \frac{v_1^2}{1.5^2} + \frac{v_2^2}{1.05^2} \leq 1 \right\},$$

$$\text{Payoff: } \varphi(x(T), y(T)) = |x(T) - y(T)|.$$