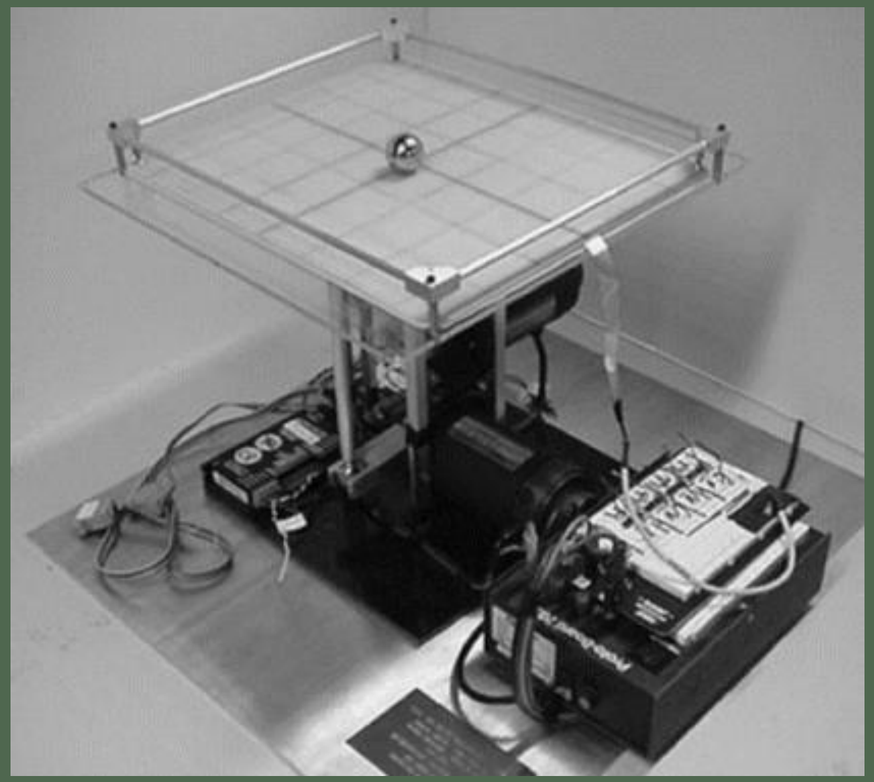
Ball & Plate system control



Topics Covered

Introduction

Mathematical modeling and obtaining the state space model

Controllability and observability of the system

Realization and stability of the system

State feedback

LQR

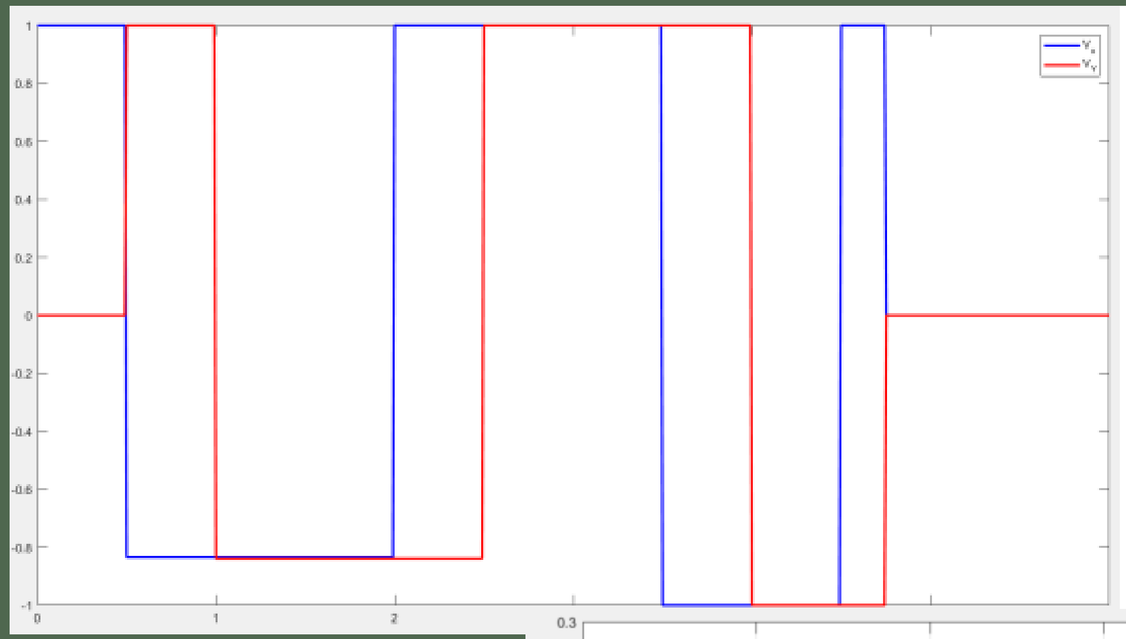
What is B&P system?

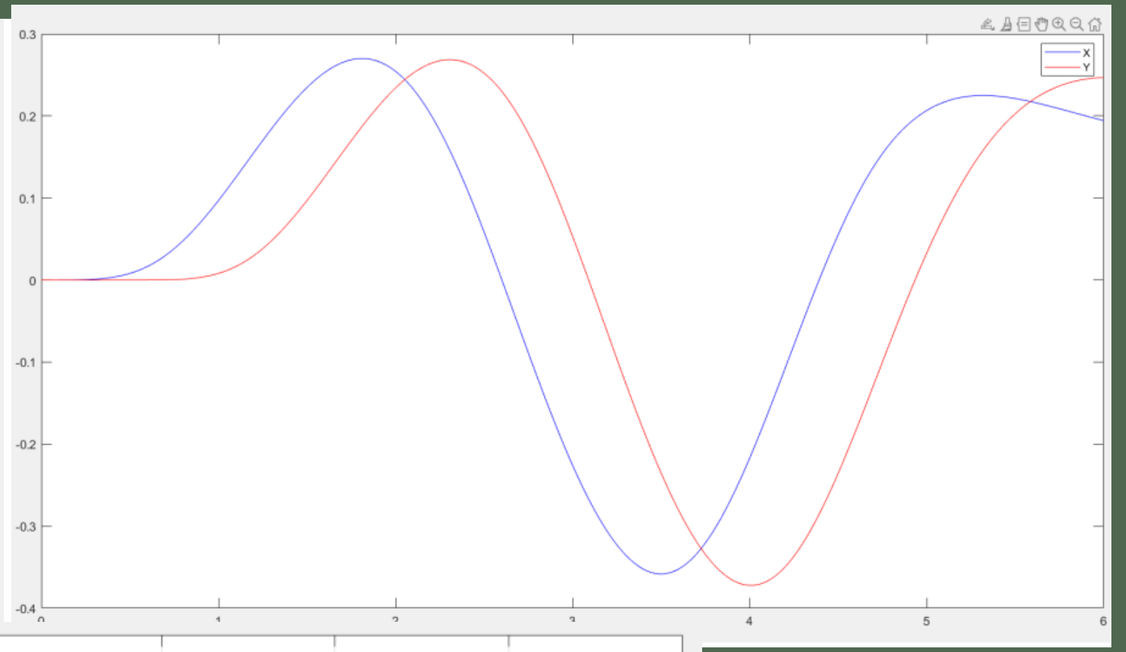
Mathematical modeling
Electrical part
Mechanichal part

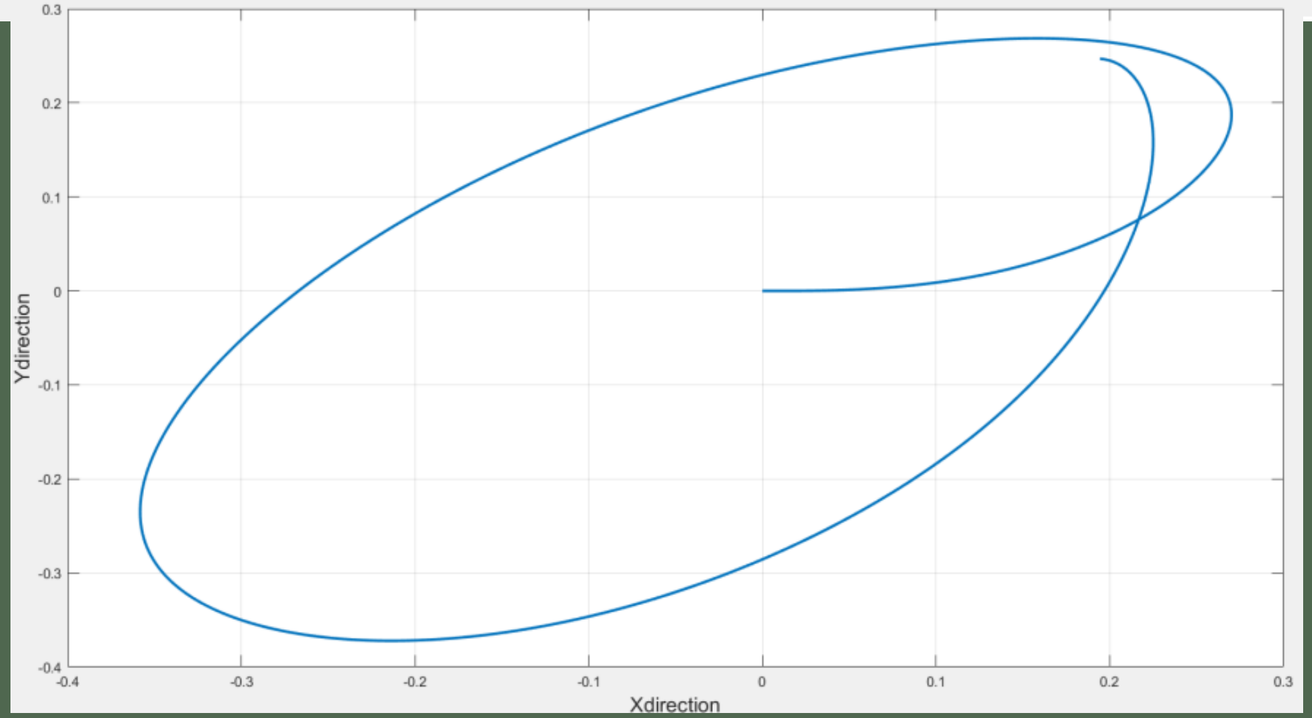
State space representation

Controllability

Observability




X
Y


Ydirection
Xdirection

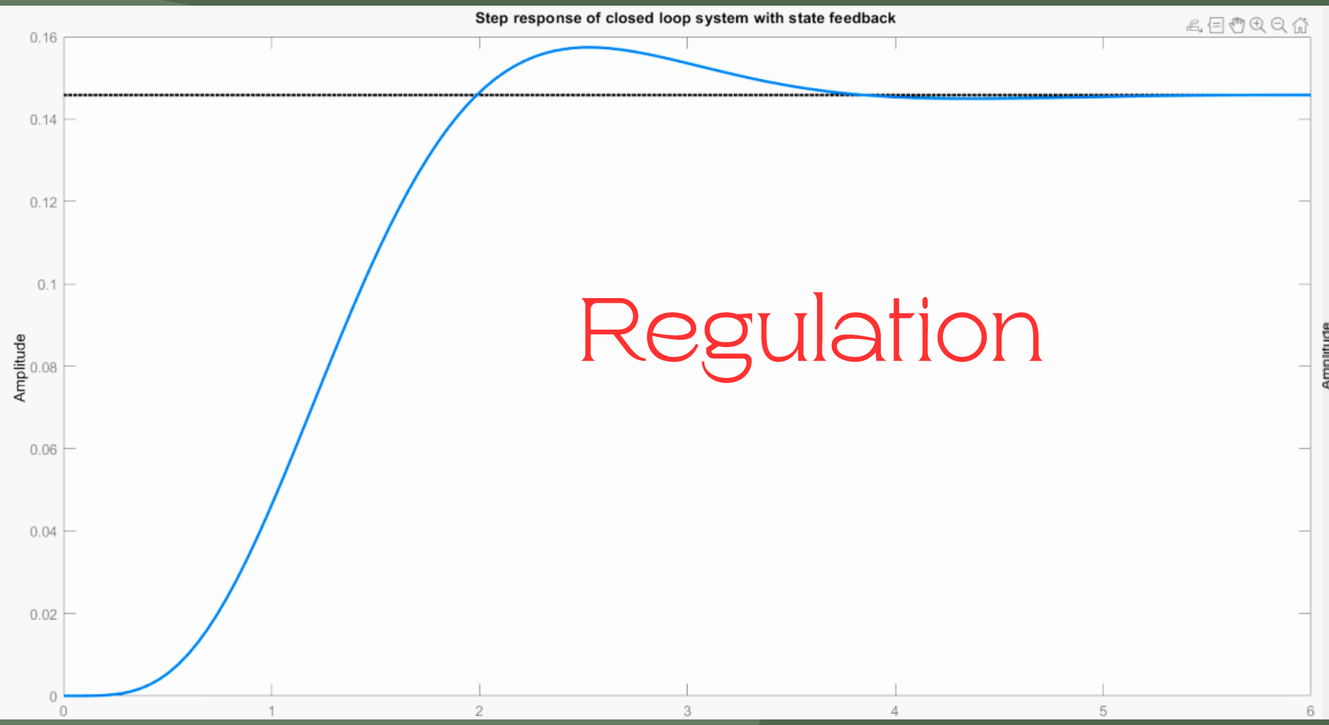
Realization

stability

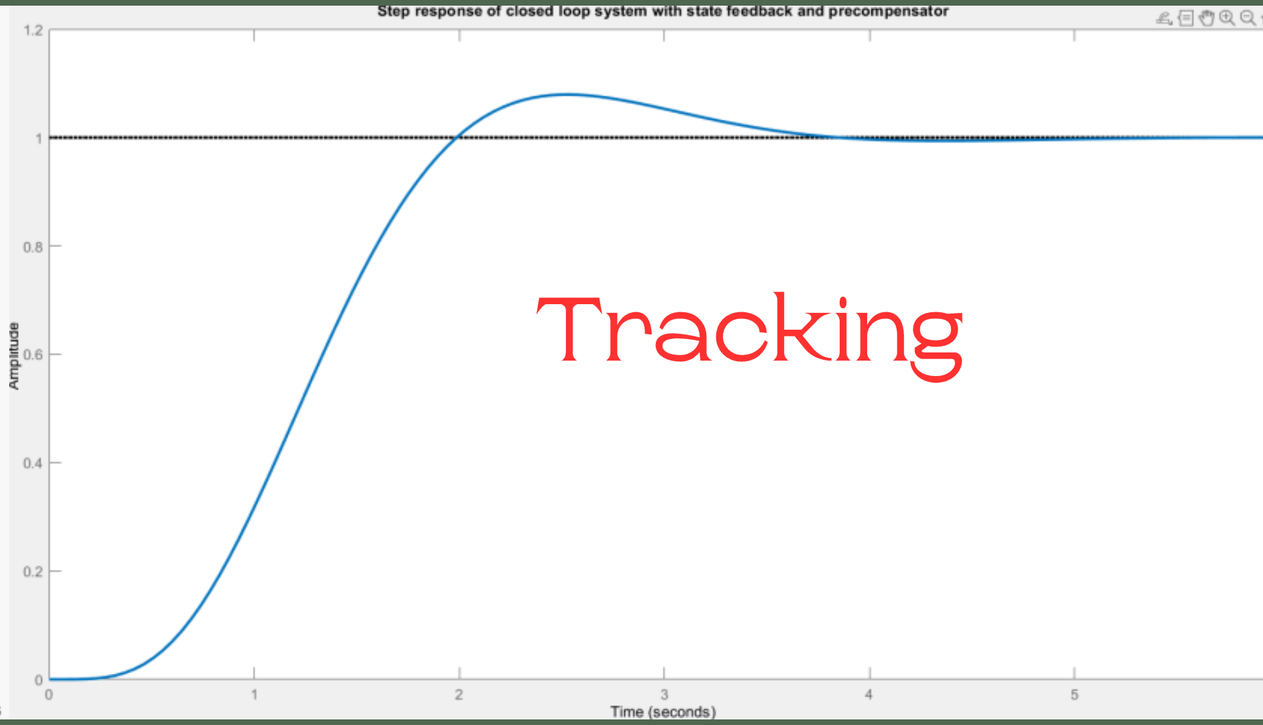
BIBO

Lyapunov

State Feedback

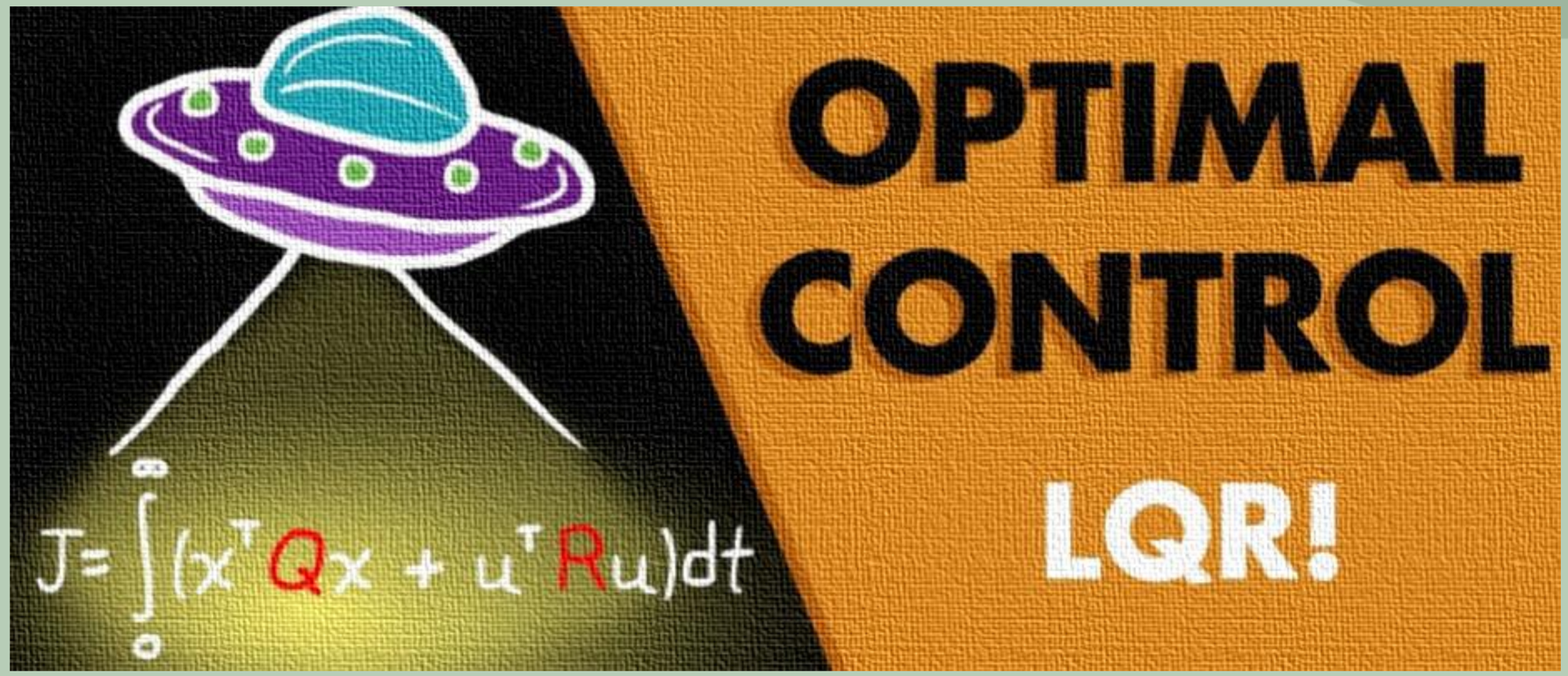


Regulation



Tracking

Linear Quadratic Regulation



Thank you!

Mehdi Fayaz & Habib Hoseini