Reduced order control using low-rank Dynamic Mode Decomposition

Palash Sashittal · Daniel J. Bodony

Abstract Enter abstract here

1 Skeleton

- Introduction
- Mathematical formulation
    - DMD
    - lr-DMD and its two algorithms
- Problem formulation
    - linear system and optimal control
    - Reduced order Riccati equation solution
- Numerical experiments
    - Fabricated problem/famous small problem like vanderpol
    - Linear Ginzburg-Landau
    - Flat plate (stable and unstable)

Palash Sashittal
Department of Aerospace Engineering,
University of Illinois, Urbana-Champaign
E-mail: sashitt2@illinois.edu

Daniel J. Bodony
Department of Aerospace Engineering,
University of Illinois, Urbana-Champaign