

THE UNIVERSITY



OF HONG KONG

Department of Mathematics

Numerical Mathematics and Applied Analysis Group Seminar (NMAA)

Matrix Inequality Characterizations for Positive Realness of Descriptor Systems

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on Thursday, May 28, 2015 at 3:00pm
in Room 210, Run Run Shaw Building, HKU

Abstract

In this talk, matrix inequality characterizations for the positive realness of descriptor systems are introduced. Hence, the celebrated positive real lemma for standard state space systems is established for descriptor systems. In addition, the lossless positive realness of both standard state space systems and descriptor systems are characterized explicitly based on the controllable staircase forms of standard state space systems and the generalized controllable staircase forms of descriptor systems, respectively.

All are welcome
