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THE HONG KONG UNIVERSITY OF SCIENCE & TECHNOLOGY

Department of Mathematics

SEMINAR ON APPLIED MATHEMATICS

Characterization of stabilization by observability inequalities of stabilization

By

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Abstract

Given a linear control system in a Hilbert space with a bounded control operator, we establish a characterization of exponential stabilizability in terms of an observability inequality. In general, characterizations of stabilization are presented by certain frequency conditions which are in "fequency domain". Our characterization is given in "time domain". The way to approach the aim is as: we realize that the exponential stabilization is equivalent to a special kind of controllability, and then by the duality argument, it is equivalent to a weak observability inequality.

Date : 08 January, 2020 (Wednesday)
Time : 3:00pm – 4:00pm
Venue : Room 4502, Academic Building (Lifts 25-26), HKUST

All are Welcome!