



**The Hong Kong Polytechnic University
Department of Applied Mathematics**

Colloquium

Spectral method for optimal control problems governed by PDEs with state constraints

by

Prof. Chen Yanping

South China Normal University, China

Abstract

In our researches, the control problems with state (control-state) constraints are approximated by Galerkin spectral method. The optimality conditions are constructed, and a priori and a posteriori error estimates are derived. Moreover, numerical tests confirm the theoretical analysis, and indicate the proposed method in our work is competitive for computing these control problems.

Date : 20 January, 2016 (Wednesday)

Time : 11:00a.m. – 12:00noon

Venue : TU801, The Hong Kong Polytechnic University

*** * * ALL ARE WELCOME * * ***