



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

Seminar

on

Some Topics on Singularly Perturbed Problems

by

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Abstract

In this talk we will combine the minimax algorithm and the local refinement to calculate the multiple spike-layer or interior-layer solutions of singularly perturbed semilinear problems. Further the uniform convergence or superconvergence of the DG method for a simplified singularly perturbed model problem in 1-D will be verified. Moreover, a so-called direct discontinuous Galerkin method aimed to reduce the computational cost is used to solve the singularly perturbed problem.

Date : 27 November, 2009 (Friday)
Time : 2:10 – 3:00 p.m.
**Venue : Departmental Conference Room HJ610
The Hong Kong Polytechnic University**

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