



DEPARTMENT OF APPLIED MATHEMATICS

應 用 數 學 系

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

**Seminar**

**Spectral Stability of Travelling Fronts: Essential and Absolute Spectrum**

by

**Dr. Robert Marangell**

**University of Sydney, Australia**

**Abstract**

In this talk, I will discuss the essential and absolute spectrum of a linear operator associated with a travelling wave solution of a partial differential equation (PDE). I will focus on two examples: the first, classical Fisher-KPP travelling waves, and second, travelling fronts in a Keller-Segel model of chemotaxis. The focus will be on the computation of the dispersion relations, and continuous and absolute spectrum for various values of parameters present in the equations, and the onset of spectral instability.

**Date : 20 August, 2018 (Monday)**

**Time : 10:30a.m. – 11:30a.m.**

**Venue : TU717, The Hong Kong Polytechnic University**

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