

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

Colloquium

On principle eigenvalues for elliptic and parabolic operator

By

**Prof. Yuan LOU
Shanghai Jiao Tong University**

Abstract

I will discuss some recent progress on the principal eigenvalues for second order elliptic and parabolic operators, including asymptotic behaviors and monotonicity of the principal eigenvalues. If time allows, I will also discuss the connections between principal eigenvalue and basic reproduction number

Biography

Prof. Yuan Lou is a widely recognized world-leading expert in mathematical biology and is currently a chair professor in the School of Mathematical Sciences of Shanghai Jiao Tong University. Prior to joining the Shanghai Jiao Tong University, he was a professor at the Ohio State University. His major research interests are in the partial differential equations and applications to biology. Professor Lou has made pioneering contributions to the understanding of population dynamics using PDEs and his research works have inspired many further development of PDE theories. His research papers have been published in leading mathematical journals like CPAM, Memories AMS and so on. He is currently a co editor-in-chief of Discrete and Continuous Dynamical Systems –Series B and an editorial member of many prestigious journals like J. Differential Equation, J. Math. Biology, SIAM J. Appl. Math and so on.

Date: 11 May 2022 (Wednesday)

Time: 15:00-16:00 (Hong Kong Standard Time GMT +8)

Venue: Online Talk via Zoom (Meeting ID: 924 5705 8862; Passcode:0511)

Speaker: Prof. Yuan Lou, Shanghai Jiao Tong University

Host: Prof. Zhian Wang, The Hong Kong Polytechnic University

Click to join:

<https://polyu.zoom.us/j/92457058862?pwd=NTdYdDk5Q1dMdTRQK25HdEFlejROQT09>



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

For enrolment, please send your name and email to wai-yan.moon@polyu.edu.hk on or before 10 May 2022