MATH Pure Mathematics Colloquium Series
The Chinese University of Hong Kong

This Colloquium Series in Pure Mathematics is organized by the Department of Mathematics at The Chinese University of Hong Kong. The series focuses on all areas of pure mathematics together with theoretical developments and applications.

Date: May 6, 2024 (Monday)
Time: 10:30AM-11:30AM (Hong Kong Time)
Venue: LSB 222

A geometric flow towards Hamiltonian stationary submanifolds

Speaker: Professor Jingyi Chen
University of British Columbia

Abstract: In this talk, I will first give a brief survey on some recent advances on Hamiltonian stationary Lagrangian submanifolds. Then I will discuss a joint work with Micah Warre in which we introduce a geometric flow for Lagrangian submanifolds in a Kahler manifold which stays in its initial Hamiltonian isotopy class and is a gradient flow for volume, and the stationary solutions are the Hamiltonian stationary Lagrangian submanifolds. We establish short time existence, uniqueness and higher order estimates for compact initial data.

Bio: Professor Jingyi Chen is a Full Professor at the University of British Columbia. He obtained his B.S. from Peking University in 1986, and his Ph.D. from the Stanford University in 1992. Professor Chen's research focuses on Geometric analysis. He has made important contributions to the study of harmonic maps, mean curvature flows and Lagrangian.