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Joint Geometric Analysis Seminar

(Part of MIST program)

Uniform estimates for complex Monge-Ampere and fully nonlinear equations

Prof. Bin Guo
Rutgers University

Abstract

Uniform estimates for complex Monge-Ampere equations have been extensively studied, ever since Yau's resolution of the Calabi conjecture. Subsequent developments have led to many geometric applications to many other fields, but all relied on the pluripotential theory from complex analysis. In this talk, we will discuss a new PDE-based method of obtaining sharp uniform C^0 estimates for complex Monge-Ampere (MA) and other fully nonlinear PDEs, without the pluripotential theory. This new method extends more generally to other interesting geometric estimates for MA and Hessian equations. This is based on the joint works with D.H. Phong, F. Tong.

Date: 2 March 2022 (Wednesday)
Time: 11:00am – 12:00pm (Hong Kong time)
ZOOM link: https://cuhk.zoom.us/j/91805734715

All are Welcome