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Joint Geometric Analysis Seminar

(Part of MIST program)

The Type IIA flow and its applications in symplectic geometry

Prof. Teng Fei
Rutgers University

Abstract
The equations of flux compactifications of Type IIA superstrings were written down by Tomasiello and Tseng-Yau. To study these equations, we introduce a natural geometric flow on symplectic Calabi-Yau 6-manifolds. We prove the wellposedness of this flow and establish the basic estimates. We show that the Type IIA flow can be applied to find optimal almost complex structures on certain symplectic manifolds. It can also be used to prove a stability result about Kahler structures. This is based on joint work with Phong, Picard and Zhang.

Date: March 30, 2022 (Wednesday)
Time: 11:00am – 12:00pm (Hong Kong time)
ZOOM link: https://cuhk.zoom.us/j/91805734715

All are Welcome