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Joint Harvard-CUHK-YMSC Differential Geometry Seminar

Tropical Lagrangian multi-sections and locally free sheaves

Abstract: The SYZ proposal suggests that mirror symmetry is T-duality. It is a folklore that locally free sheaves are mirror to a Lagrangian multi-section of the SYZ fibration. In this talk, I will introduce the notion of tropical Lagrangian multi-sections and discuss how to obtain from such object to a class of locally free sheaves on the log Calabi-Yau spaces that Gross-Siebert have considered. I will also discuss a joint work with Kwokwai Chan and Ziming Ma, where we proved the smoothability of a class of locally free sheaves on some log Calabi-Yau surfaces by using combinatorial data obtained from tropical Lagrangian multi-sections.

By
Dr. Yat-Hin SUEN

IBS-Center for Geometry and Physics, Korea

Date:	**March 2, 2022 (Wednesday)**
Time:	**9:30am – 10:30am (Hong Kong Time)**
Zoom Link:	**https://cuhk.zoom.us/j/95804207557**
	(Meeting ID: 958 0420 7557; Passcode: 20220302)

All are Welcome