The Institute of Mathematical Sciences
The Chinese University of Hong Kong

數學科學研究所
香港中文大學

Joint Harvard-CUHK-YMSC Differential Geometry Seminar

Angular momentum in general relativity

Abstract: The definition of angular momentum in general relativity has been a subtle issue since the 1960', due to the discovery of "supertranslation ambiguity": the angular momentums recorded by two distant observers of the same system may not be the same. In this talk, I shall show how the mathematical theory of optimal isometric embedding and quasilocal angular momentum identifies a correction term, and leads to a new definition of angular momentum that is free of any supertranslation ambiguity. This is based on joint work with Po-Ning Chen, Jordan Keller, Ye-Kai Wang, and Shing-Tung Yau.

By
Professor Mutao Wang
Columbia University

Date:	**October 6, 2021 (Wednesday)**
Time:	**9:30am – 10:30am (Hong Kong Time)**
Zoom Link:	**https://cuhk.zoom.us/j/93114537124**
	(Meeting ID: 931 1453 7124; Passcode: 20211006)

All are Welcome