MASSACHUSETTS INSTITUTE OF TECHNOLOGY
DEPARTMENT OF MATHEMATICS

Geometric Analysis Seminar

Wednesday, October 5, 2022
5:00 PM - 6:00 PM   2-131

Lei Ni
(UCSD)

"When Chern meets Ambrose and Singer"

Abstract

K\"ahler manifolds can be characterized by the fact that the Riemannian structure/connection of a Hermitian complex manifold coincides with its holomorphic structure/Chern connection. In this talk I shall explain some progresses made with F. Zheng on the classification of Hermitian complex manifolds whose Chern connection coincides with the Ambrose-Singer connection. Ambrose and Singer were two professors at MIT. In the talk I shall also explain the connections between the topics/techniques employed and the works of two other prominent MIT professors, namely Helgason and Kostant.