北京理工大学

数学与统计学院学术报告

Euclidean embeddings of Calabi's hyperkahler metrics and a generalization to rings with involution

报告人 Speaker:

Joshua Lackman Peking University

时　间 Time: 2025.12.15 18:30–20:30

地　点 Location:

良乡校区文萃楼 Room E510 in Wencui Building of Liangxiang Campus

摘要 Abstract: We generalize Calabi's hyperkahler metrics on the cotangent bundles of projective spaces by replacing $\mathbb{C}$ with an arbitrary ring with involution. As a result, we obtain isometric embeddings of Calabi's hyperkahler metrics into Euclidean space and an isometric immersion of the Eguchi–Hanson space into $\mathbb{R}^{10}$. We also obtain para-hyperkahler manifolds and complex hyperkahler manifolds.

个人简介 Speaker Info: Joshua Lackman completed his PhD at the University of Toronto under the supervision of Marco Gualtieri with a dissertation on the van Est map. Josh has recently finished a postdoctoral fellowship at Beijing International Center for Mathematical Research at Peking University, working with Xiaomeng Xu. Josh is interested in studying geometric quantizations with a publication in International Mathematics Research Notices, Letters in Mathematical Physics, and several preprints under review.