Spring 2025

Geometry and Topology Seminar

Title
Geometric structures, Gromov norm and Kodaira dimensions

Speaker:	Weiyi Zhang, University of Warwick
Date:	February 14, 2025
Time:	7:30AM
Zoom Meeting ID:	931 6643 0051

Abstract: Kodaira dimension provides a very successful classification scheme for complex manifolds. The notion was extended to symplectic 4-manifolds. In this talk, we will define the Kodaira dimension for 3-manifolds through Thurston's eight geometries. It is compatible with the mapping order and other Kodaira dimensions in the sense of "additivity". This idea could be extended to higher dimensional geometric manifolds. Those with highest Kodaira dimension are distinguished by nonvanishing Gromov norm. We will explore the "nonvanishing Gromov norm implies top Kodaira dimension" principle for classical holomorphic Kodaira dimension.

Part of the work is joint with Christoforos Neofytidis.