Jungkai Chen: **Geography of threefolds of general type**

The classification of algebraic varieties leads to the study of Fano-type variety, Calabi-Yau varieties and varieties of general type. For varieties of general type, main questions concern the universal lower bound of volume, effective pluricanonical maps, and relations between various birational invariants. These types of questions are considered to be well-understood for surfaces. However, not so much is known even in dimension three. In this talk, we will survey the recent progress of explicit studies of threefolds of general type and their application to various geographic problems. Â