

Speaker: Song Sun

Title: Collapsing of Calabi-Yau metrics Speaker

Abstract: We will discuss recent work involved by the speaker on the collapsing structure of Calabi-Yau metrics. We will give an overview of the subject and then explain two main results: (1) Collapsing of Calabi-Yau metrics for small complex structure degenerations (in general dimensions). This result gives a relatively complete description of the geometry. (2) General structural theory for collapsing in complex dimension 2. This is related to the study of moduli space of K3 surfaces and classification of gravitational instantons. These results are based on joint work by Ruobing Zhang, and we will also mention related results which were joint with H. Hein, J. Viaclovsky and R. Zhang.