学术报告

Metric structure of collapsed Einstein spaces

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Venue： Room 111, Center for Applied Mathematics

Abstract： A family of Einstein manifolds are called collapsing if they converge to some lower dimensional space, where the convergence is well-defined only in a very weak sense. Usual geometric tools just legitimately break down when Riemannian metrics are collapsing, while algebraic or geometric degenerations naturally arise in various contexts. This talk particularly focuses on the collapsing of Ricci-flat Kaehler metrics in both lower and higher dimensions. In dimension 4, we will accurately describe the moduli space structure of elliptic K3 surfaces. Also we will give both existence and classification results for K3 surfaces with codimension-3 collapse, which corresponds to the maximal but non-trivial collapse of K3. Next, we will introduce a family of new examples of higher dimensional collapsed Calabi-Yau spaces with degenerating complex structures.

欢迎大家参加！