

*Department of Mathematics,
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Differential Geometry Seminar

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Collapsing of Ricci-flat metrics

Abstract:

We are interested in the behaviour of Ricci-flat Kahler metrics on a compact Calabi-Yau manifold, with Kahler classes approaching the boundary of the Kahler cone. The case when the volume approaches zero is especially interesting since the corresponding complex Monge-Ampere equation degenerates in the limit. If the Calabi-Yau manifold is the total space of a holomorphic fibration, the Ricci-flat metrics collapse to a metric the base, which ‘remembers’ the fibration structure.

Host: Ben Weinkove

Monday, November 9, 2009

4:00 PM

AP&M 6402
