PANAGIOTIS GIANNIOTIS, University of Waterloo

Ricci flow from spaces with isolated conical singularities

In this talk I will present joint work with Felix Schulze on the short-time existence of the Ricci flow from initial data with isolated conical singularities. Assuming the links of the cones that model the singularities are spheres with curvature operator greater that one, we construct a smooth Ricci flow which achieves the initial condition in the Gromov-Hausdorff sense and smoothly away from the singular points. Moreover, the tangent flow at each singular point is the unique, positively curved, gradient Ricci expander that is asymptotic to the cone modeling the singularity.