RUTGERS

UNIVERSITY | NEWARK

DEPARTMENT OF MATHEMATICS AND COMPUTER SCIENCE

Colloquium

STABILITY AND BOUNDEDNESS OF KLT SINGULARITIES

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ABSTRACT:

Kawamata log terminal (klt) singularities play a central role in birational geometry, and it turns out that they also appear on Gromov-Hausdorff limits of Kähler-Einstein Fano manifolds. In the latter context, Donaldson and Sun constructed metric tangent cones of the limit singularities and conjectured that the metric tangent cones only depend on the algebraic structure of the singularities. I will survey some recent works on the algebro-geometric construction of "metric tangent cones" for general klt singularities, and discuss some implications on boundedness of singularities.

3 − 4pm, Wednesday, Feburary 22, 2023

Room 204, Smith Hall