

Colloquium

University of Notre Dame
Department of Mathematics

Valentino Tosatti - Northwestern University

Speaker: Valentino Tosatti

Northwestern University

Will give a lecture entitled

Metric limits of Calabi-Yau manifolds

Date: Wednesday, February 13, 2019

Time: 4:00 PM

Location: 129 Hayes-Healy Hall

Departmental Tea: Tea in Room 257 (lounge in Hurley Hall) at 3:30 p.m.



Abstract:

Calabi-Yau manifolds are a class of compact complex manifolds that enjoys remarkable geometric properties, which derive from the fact that they admit Riemannian metrics with vanishing Ricci curvature. These metrics are typically not explicit, even in the case when the Calabi-Yau manifold is given by concrete polynomial equations, and are rather constructed by solving a nonlinear PDE. A central problem in this area is to understand how these metrics behave when the Calabi-Yau manifolds degenerate. I will discuss some recent results on this problem, obtained with several coauthors, and applications in various other directions.