MASSACHUSETTS INSTITUTE OF TECHNOLOGY
DEPARTMENT OF MATHEMATICS

Geometric Analysis Seminar

Wednesday, October 27, 2021

4:00pm – 5:00pm   Room 2-131

Keaton Naff
(MIT)

"The planarity estimate in higher codimension mean curvature flow"

Abstract

In this talk, we will discuss the mean curvature flow of n-dimensional submanifolds in $\mathbb{R}^N$ satisfying a pinching condition $|A|^2 < c|H|^2$ introduced by Andrews and Baker ('10). We will compare these flows to flows of hypersurfaces studied in the celebrated works of Huisken ('84) and Huisken-Sinestrari ('99, '09). Our primary goal is to discuss an estimate that quantifies the planarity of these solutions prior to singularity formation. At the end, we will discuss how the estimate can be used to understand singularity formation.