MASSACHUSETTS INSTITUTE OF TECHNOLOGY DEPARTMENT OF MATHEMATICS

Geometric Analysis Seminar

Wednesday, November 30, 2022 4:00 PM - 5:00 PM 2-131

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"Rotational Symmetry of Mean Curvature Flows Coming out of Double Cones"

Abstract

We study the non-uniqueness problem of mean curvature flows (MCF) coming out of cones. Examples of such flows include the self-expanders, which are homothetically expanding solutions of the MCF. We will discuss the other non-self-similar, possibly singular, MCFs coming out of cones. In particular, we show that in the case of a rotationally symmetric double cone, any such flow must inherit the symmetry of the cone at all times, provided it is initially smooth.