

ANALYSIS ON CYLINDRICAL SINGULARITIES OF MEAN CURVATURE FLOW

Speaker: Zhihan Wang
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Time: Wed, Jun 18th; Thur, Jun 19th; Fri, Jun 20th; 9:00-11:00am

Venue: Room 102, SCMS

Abstract:

lecture 1: We introduce the basic concepts in mean curvature flow and their singularities; We also discuss a finite dimensional toy model on the Lojasiewicz inequality and uniqueness of tangent flow.

lecture 2: We study the spectral properties of round cylinder, using which a Lojasiewicz-type inequality is established for a class of hypersurfaces close to the round cylinder satisfying a growth control near infinity.

lecture 3: We introduce the recently developed nonconcentration estimate for mean curvature flow which, together with the Lojasiewicz inequality proved in lecture 2, gives a new proof of the uniqueness of cylindrical tangent flow. If time permits, we shall discuss more applications of this nonconcentration estimate.