1118-53-231 **Longzhi Lin*** (lzlin@ucsc.edu). *Star-shaped mean curvature flow.*

A one-parameter family of hypersurfaces in Euclidean space evolves by mean curvature flow if the velocity at each point is given by the mean curvature vector. It can be viewed as a geometric heat equation, i.e., it is locally moving in the direction of steepest descent for the volume element, deforming surfaces towards optimal ones (minimal surfaces). In this talk we will discuss some recent work on the local curvature estimate and convexity estimate for the star-shaped mean curvature flow and the consequences. These estimates hold for any singularities via elliptic regularization. In particular, star-shaped MCF is generic in the sense of Colding-Minicozzi. (Received February 01, 2016)