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On the Structure of Singularities of Mean Curvature Flows with Mean Curvature Bounds

Even for a mean curvature flow with uniformly bounded mean curvature, singularities may occur. For flows with these additional bounds, we can improve our understanding of singularities by incorporating the theory of varifolds with bounded mean curvature. In particular, tangent flows are necessarily static flows of minimal cones, and the tangent flow is unique if the cone has smooth link. In certain cases, we characterize the smooth minimal surfaces that pinch off at smaller scales around a singularity. We'll also discuss generalizations of these results to Brakke flows with high co-dimension and integral mean curvature bounds.