Using the interplay between two kinds of singularity models, we describe the development of singularities of the mean curvature flow of Lagrangian submanifolds of complex Euclidean space. Mild (‘type I’) singularities of the flow can only occur at certain times determined by invariants in the cohomology of the initial data; all other singularities are modeled locally by unions of special Lagrangian cones. We will also discuss applications of these results to conjectures of Thomas-Yau and Joyce about special Lagrangian submanifolds of Calabi-Yau manifolds.

Hierzu wird herzlich eingeladen.

C. Cederbaum, G. Huisken, C. Nerz