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A priori estimates for mean curvature flow

The evolution of hypersurfaces along their mean curvature is a quasilinear elliptic system which implies a reaction diffusion system for the curvature of the evolving hypersurfaces. The lecture explains a priori estimates for this system obtained in joint work with Carlo Sinestrari. The estimates can be used to understand singularities of the flow and are basic for surgery at such singularities.