Evolving hypersurfaces minimizing the distance from mean curvature flow

We consider a functional that assigns to an evolution of hypersurfaces the square deviation from mean curvature flow. For a given time interval, and fixed initial and final data, we consider the corresponding minimization problem. We discuss the existence of minimizers, conserved quantities, and the radially symmetric case.

(Joint work with Annibale Magni, Freiburg.)