An inscribed radius estimate for mean curvature flow in Riemannian manifolds

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Abstract. We consider a family of embedded, mean convex hypersurfaces in a Riemannian manifold which evolve by the mean curvature flow. We show that, given any number $T > 0$ and any $\delta > 0$, we can find a constant C with the following property: if $t \in [0, T)$ and p is a point on M_t where the curvature is greater than C, then the inscribed radius is at least $\frac{1}{(1+\delta) H}$ at the point p. The constant C depends only on δ, T, and the initial data.

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