

# **A sharp lower bound for the integral of mean curvature on closed hypersurfaces**

**G. Huisken**

(A.E.I. Max Planck Institute)

Dedicated to 60th birthday of Sylvestre Gallot

Consider a closed hypersurface bounding a region in Euclidean space. We use inverse mean curvature flow to prove an optimal lower bound for the integral of the mean curvature in terms of the area of the surface, for surfaces that are minimizing area in the exterior of the region they bound.

We discuss the analytical issues involved and some applications.