

Texas Geometry and Topology Conference
Meeting 32. Texas A&M University, October 29-31, 2004

Brian White, Stanford University, *New Applications of Mean Curvature Flow to Minimal Surfaces*

Densities have long played a crucial role in the study of minimal varieties. Each point on a minimal variety has a well-defined density, and the density at any regular point is 1. In this talk I will consider the old question: how small can the density at a singular point be? According to Allard's regularity theorem, the density must be greater than 1, but until recently (except in very special cases) little else was known. I will describe how mean curvature flow can be used to give optimal lower density bounds for large classes of singularities.

The new results are joint work with Tom Ilmanen.