

Title: Application of Curvature Comparison Theorems in Minimal Surfaces

Abstract: We use generalized minimal or capillary hypersurfaces to study comparison theorems of certain class of positively curved manifolds (with boundary) this is also called Gromov's μ -bubble method. We apply these results to obtain useful geometric bounds such as Urysohn width bandwidth estimates and study rigidity of (free boundary) minimal hypersurfaces.