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"Scalar and mean curvature comparison via mu-bubbles "

Abstract:

We introduce ideas and results concerning so called mu-bubbles, which in short are hypersurfaces minimizing a warped volume functional. We illustrate how one can use these techniques, developed by Chodosh and Li, Gromov and Zhu, to prove band width estimates for Riemannian bands over closed oriented aspherical 4-manifolds. This is inspired by recent work of Cecchini and Zeidler in the spin setting.