

Abstract: We discuss the geometry and topology of submanifolds under a sharp pinching condition involving extrinsic invariants like the mean curvature and the length of the second fundamental form. Homology vanishing results are given that strengthen and sharpen previous ones. In addition, an integral bound is provided for the Bochner operator of compact Euclidean submanifolds in terms of the Betti numbers.

This is joint work with Christos-Raent Onti.