1039-53-149   **Helena M. Noronha*** (`maria.noronha@csun.edu`), Department of Mathematics, California State University Northridge, Northridge, CA 91330-8313. *Some results on the topology of manifolds of Nonnegative Isotropic Curvature.*

Abstract: The concept of isotropic curvature was introduced by Micallef and Moore in in the article "Minimal two-spheres and the topology of manifolds with positive curvature on totally isotropic two-planes", Ann. of Math 127, (1988), 199-227.

It plays a similar role in the study of second variation of area of minimal surfaces that the sectional curvature does in the study of geodesics. In fact, by studying the stability of harmonic spheres, Micallef and Moore proved that compact, simply connected manifolds of positive isotropic curvature are homeomorphic to the sphere. In this talk we will show some curvature conditions that imply the positivity (nonnegativity) of the isotropic curvature and present some of the new results on the topology of such manifolds. (Received March 10, 2008)