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Zhiqin Lu* (zlu@math.uci.edu), Department of Mathematics, UC Irvine, Irvine, CA 92697.

Normal Scalar Curvature Conjecture and its applications.

In this talk, we show how to prove the normal scalar curvature conjecture and the Bottcher-Wenzel conjecture. As an application, we will use our new results to re-exam the classical pinching theorems of minimal submanifolds in spheres. Better pinching theorems are obtained. (Received July 29, 2008)