

On Some Rigidity Results in Riemannian and Sub-Riemannian Geometries

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Abstract

The Lichnerowicz - Obata theorem in Riemannian geometry is a classical result, that relates the first non-zero eigenvalue of the Laplacian on a compact Riemannian manifold and its Ricci curvature, and provides a characterization in the equality case. Along with the classical results in Riemannian geometry, we intend to discuss in this talk corresponding results in certain sub-Riemannian geometries, with emphasis on Quaternionic contact geometry.

