

New Bochner Type Theorems

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A classical theorem of Bochner asserts that the isometry group of a compact Riemannian manifold with negative Ricci curvature is finite. In this talk, we will describe several extensions of Bochner's theorem by allowing "small" positive Ricci curvature under additional topological conditions. The rigidity of certain index-theoretic topological invariants play the essential role here. This represents our joint work with Xiaoyang Chen.

References Xiaoyang Chen and Fei Han, *New Bochner Type Theorems*, Math. Ann. (2023). <https://link.springer.com/article/10.1007/s00208-023-02612-y>