The stable converse soul question

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Abstract

The Soul Theorem of Cheeger and Gromoll asserts that any complete open manifold with non-negative sectional curvature is diffeomorphic to the normal bundle of its "soul", i.e. to the normal bundle of some compact submanifold. Conversely, one may ask which vector bundles over compact manifolds admit non-negatively curved metrics. I will report on joint work with David González-Álvaro addressing a stable version of this question.