

Covering complexity and scalar curvature via quantitative K-theory

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Abstract

I will discuss a certain notion of covering complexity of a Riemannian manifold and how it relates to lower bounds of positive scalar curvature in the spin case. This makes use of a pairing between quantitative K-theory and Lipschitz K-theory, together with a quantitative vanishing theorem for Dirac operators. This is joint work with Guoliang Yu.