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Title: Symmetries of spaces with lower curvature bounds

Abstract:

The classification of manifolds of positive and non-negative sectional curvature is a long standing problem in Riemannian geometry. In particular, restricting our attention to closed, simply-connected manifolds, there are no topological obstructions that allow us to distinguish between positive and non-negative curvature, that is, we have no examples of manifolds that admit a metric of non-negative curvature that do not admit a metric of positive curvature. However, with the introduction of symmetries, we are able to distinguish between these two classes. In this context, I will discuss recent joint work with Christine Escher and work with Zheting Dong and Christine Escher on non-negatively curved manifolds with abelian symmetries.