

Title: Lichnerowicz-Obata projective conjecture

Abstract: The following result conjectured by Lichnerowicz and Obata has been proved: Let a connected Lie group G act on a complete connected Riemannian manifold (M^n, g) of dimension $n \geq 2$ by diffeomorphisms that take (unparameterized) geodesics to geodesics. Then, it acts by affine transformations, or g has a constant positive curvature.