

Singular (N, p) -Laplacian equation on Riemannian manifolds.

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In this talk, we aim to investigate the existence of solutions for a singular elliptic equation of (N, p) -Laplacian type on a non-compact, complete N -dimensional Riemannian manifold with nonnegative Ricci curvature and Euclidean volume growth. The nonlinearity appearing in the problem exhibits exponential critical growth in the Moser-Trudinger sense. By combining variational arguments with a Lions-type compactness principle, we guarantee the existence of a non-zero, isometry-invariant solution for such problems.