Student Geometry Seminar

國立清華大學數學系 學生幾何研討會

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講題 Harmonic functions on complete Riemannian manifolds

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Abstract

In this talk, we first introduce Bochner formula, Laplacian comparison theorem, and gradient estimate, which play fundamental roles in studying harmonic functions. After that, we show that any positive harmonic function on manifolds with non-negative Ricci curvature must be identically constant. Finally, we introduce some results about the dimension estimate of the space of polynomial growth harmonic functions.