

Q -curvature in Conformal Geometry

Sun-Yung Alice Chang

Abstract

Q -curvature is a notion introduced by Paneitz-Branson in the early 1980th initially defined on manifolds of dimension four; and which is a direct generalization of the Gaussian curvature on compact surface. In recent years, there has been intensive effort to study the subject mainly due to its conformal invariant property and its connection to some geometric invariants in the asymptotic hyperbolic, conformally compact Einstein manifolds. In this talk, I will give a brief survey of the subject with emphasize on applications to problems in conformal geometry.