学术报告

Exponential Square Integrability and Dyadic Structures

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Venue： Room 111, Center for Applied Mathematics

Abstract： In this talk we introduce the exponential square integrability of a function whose square function associated to a nonnegative self-adjoint operator L is bounded, without requiring the preservation condition $e^{-tL}1 = 1$. The proof exploits some algorithm of classification and combination related to dyadic cubes, which is new even for the Laplace operator on Euclidean spaces. This work is one endpoint case of Littlewood-Paley theory associated to operators, and has various applications such as sharp L^p estimates for square functions, two-weighted norm estimates, eigenvalue estimates and so on.

Besides, we also establish three equivalent characterizations of the exponential square class associated to the classical dyadic square function on spaces of homogeneous type.

欢迎大家参加！