Wednesday, December 21, 2022
Time: 16:10-17:00
venue: Mathematics Building Room 527

Quantum Unique Ergodicity (QUE) Conjecture and the Second Moments of Hecke-Maass Forms for $SL(3,\mathbb{Z})$

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Abstract

QUE conjecture is a central problem in the fields of number theory and quantum chaos. It is formulated by Zeev Rudnick and Peter Sarnak in 1994. QUE conjecture says that the large frequency eigenfunctions of the Laplacian are equidistributed, when they are on a negatively curved manifold. In this talk, I will introduce QUE conjecture and my work on the analogue of QUE conjecture for a rank 2 group. An identity and upper bound for the second moments of Hecke-Maass forms for $SL(3,\mathbb{Z})$ will be mentioned. This is a joint work with my doctoral advisor, Professor Xiaoqing Li.