

**ON THE DECAY OF SPECTRAL PROJECTIONS  
ASSOCIATED TO CERTAIN ELLIPTIC DIFFERENTIAL  
OPERATORS**

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ABSTRACT

In this talk, our aim is to investigate the best possible decay for the spectral projections (associated to certain elliptic operators) of functions that are allowed to vanish on nonempty open sets. In 1934, Ingham first gave an answer to this type of question regarding the decay of Fourier transform on  $\mathbb{R}$ . We will discuss analogue of Ingham's theorem for the spectral projections associated to Hermite, special Hermite, and Laplace-Beltrami operators on rank one compact symmetric spaces. This is joint work with S. Thangavelu.

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