

Pedro Freitas

Asymptotic behaviour of extremal domains for Laplace eigenvalues

Abstract

The numerical and theoretical work carried out over the last 15 years on the optimisation of eigenvalues of the Laplace operator under different boundary conditions has shown that it is not reasonable to expect much structure to exist in the intermediate frequency region. Due to this, attention has turned to the asymptotic behaviour of extremal domains of eigenvalues for such problems in the high-frequency regime. In this talk we will give an overview of existing results and then present some new results for sums of eigenvalues.