
Excited resonance widths for Helmholtz resonators with straight neck

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Abstract

We present joint works with Thomas Duyckaerts and André Martinez. We consider resonances associated with eigenvalues of the cavity of a general Helmholtz resonator with straight neck. Under the assumption that the neck stays away from the nodal set of the corresponding eigenstate in the case of excited eigenvalues, we obtain the optimal exponential lower bound on the width of the resonance.

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