

SCATTERING RESONANCES OF DEGENERATING SCHOTTKY FAMILIES

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ABSTRACT

The scattering resonances of Schottky groups are important objects in spectral theory and dynamics. The size of the spectral gap is a well-known open problem. Motivated by this problem, I will talk about a recent work with Jialun Li, Carlos Matheus, and Wenyu Pan on the asymptotic behavior of resonances under “good” degeneration. We show that when the frequency is not too high, the distribution of resonances follows some finite/combinatorial object called intermediate zeta functions. This could be used to explain some behaviour in numerics, generalizing earlier works of Weich and Pollicott–Vytnova.