

Spectral theory of infinite-volume hyperbolic manifolds

In this talk, we define a twisted Laplacian on an orbundle over a hyperbolic surface (that might be of infinite volume). We show how to prove a meromorphic continuation of the resolvent to the entire complex plane and get an upper bound on the number of resonances. Additionally, we establish a factorization formula for the twisted scattering determinant and describe the behavior of the scattering matrix in a neighborhood of $1/2$.