

# SPECTRAL ANALYSIS ON COMPLEX HYPERBOLIC SPACES

GÁBOR FRANCICS

Department of Mathematics  
Michigan State University

## ABSTRACT

Our main goal is to investigate the spectral properties of the Laplace-Beltrami operator on discrete quotients of the complex hyperbolic space. We are interested in the existence of embedded eigenvalues in the continuous spectrum for a class of holomorphic automorphism groups with finite volume. This class contains the Picard modular group with Gaussian integers. We also construct an explicit fundamental domain for this group. This is joint work with P. Lax.