

ZETA-DETERMINANTS OF STURM-LIOUVILLE OPERATORS WITH QUADRATIC POTENTIALS AT INFINITY

LUIZ ROBERTO HARTMANN JUNIOR

We will present a brief introduction about the zeta regularized determinants. Then we will describe our recent result of zeta-determinants of Sturm–Liouville operators with quadratic potentials at infinity. Such operators arise naturally in the analysis of hyperbolic manifolds, or more generally manifolds with cusps. We establish existence and a formula for the associated zeta-determinant in terms of the Wronski-determinant of a fundamental system of solutions adapted to the boundary conditions.