ABSTRACT

C*-algebras and the cohomology of Arakelov line bundles

A basic problem in Arakelov theory is to understand the cohomology of an Arakelov line bundle (or vector bundle, more generally) of a number field as an algebraic object. Following the work of Tate, Roessler, Morishita, van der Geer-Schoof, and A. Borisov, we shall discuss this problem from the point of view of harmonic analysis.