

Arithmetic cohomology and homology

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Abstract

We discuss how to combine ideas of Lichtenbaum and Voevodsky to define a cohomology theory with compact support for separated schemes of finite type over finite fields which is expected to be finitely generated, forms an integral model for l -adic cohomology with compact support, and is related to values of zeta-functions.

We also define a Borel–Moore homology theory, and discuss how to construct a duality between the two theories.