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Abstracts

A p -ADIC BOREL REGULATOR

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This is a report on joint work with Guido Kings, Regensburg.

We define a p -adic regulator map in complete analogy to Borel's regulator for the infinite prime. The van Est isomorphism for continuous cohomology of real Lie groups is replaced by Lazard's isomorphism for continuous cohomology of p -adic Lie groups.

The (long term) aim is to use this new and strikingly simple construction in attacking the Bloch-Kato conjecture for special values of Dedekind Zeta functions.

Our first concrete result is a comparison between the p -adic Borel regulator and the regulator appearing in the Bloch-Kato conjecture, i.e., the étale Chern class and the Bloch-Kato exponential.