
The p -adic Corlette-Simpson correspondence for abeloids

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Abstract

This is joint work with Ben Heuer and Lucas Mann. For an abeloid variety A over a complete algebraically closed field extension K of the p -adic numbers, we construct an equivalence between finite-dimensional continuous K -linear representations of the Tate module and a certain subcategory of the Higgs bundles on A . To do so, our central object of study is the category of vector bundles for the v -topology on the diamond associated to A . We prove that any pro-finite-étale v -vector bundle can be built from pro-finite-étale v -line bundles and unipotent v -bundles.

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