Séminaire de géométrie algébrique de Rennes¹

Exposé du jeudi 22 janvier 2009

VECTOR BUNDLES WITH POTENTIALLY SEMISTABLE REDUCTION ON P-ADIC CURVES AND ETALE PARALLEL TRANSPORT.

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Résumé : We explain how to obtain a parallel transport for certain vector bundles of slope zero on smooth projective curves *X* over the algebraic closure of \mathbb{Q}_p . In particular, for these bundles one obtains an action of the algebraic fundamental group with respect to a base point *x* on the fibre of the bundle in *x*.

The bundles have to be such that after pullback along a finite (possibly ramified) covering they have strongly semistable reduction. It is an interesting question whether all semistable bundles of slope zero on *X* have this kind of potential reduction behaviour.

The main progress over previous work consists in allowing ramification in the coverings. This part of the argument uses the comparison of the algebraic and topological fundamental group and is not algebraic in nature. If time permits we also explain how bundles of nonzero slope with potentially strongly semistable reduction give rise to representations of a canonical extension of the fundamental group.

¹Les jeudis matin, de 10 h 30 à 11 h 30, salle 004, IRMAR (bâtiment 22), Université de Rennes 1, Campus de Beaulieu