

Du
27
MARS.
2015

14h00

-
15h30

RÉGA

Alexander Beilinson "Relative continuous K-theory and cyclic homology"

IHP
Salle 314

INSCRIPTION

Alexander Beilinson (Chicago)
Relative continuous K-theory and cyclic homology

Let $\$A\$$ be a $\$p\$$ -adic ring, $\$I\$$ its two sided ideal such that $\$p\$$ -adic topology on $\$A\$$ equals $\$I\$$ -adic one; set $\$A_i := A/p^i A\$$. The main result is a natural quasi-isogeny between the relative K-theory pro-spectrum " $\lim^\leftarrow \$K(A_i, IA_i)\$$ " and the cyclic pro-complex " $\lim^\leftarrow \$CC(A_i, IA_i)\$$ ". This is a $\$p\$$ -adic version of the classical isomorphism of Goodwillie (to be recalled in the first half of the talk).

A geometric application (which is a generalization of a theorem of Bloch-Esnault-Kerz): Let $\$X\$$ be a proper scheme over the ring of integers of a $\$p\$$ -adic field E such that the generic fiber $\$X_E\$$ is smooth, and $\$Y\$$ be its subscheme whose support equals the close fiber. Then the projective limit of relative non-connective K-groups $\$K_n B(X/p^i, Y)\$$ identifies naturally, after being tensored by $\$mathbb{Q}\$$, with Hodge-truncated de Rham cohomology $\$oplus_a H_{\{dR\}}^{2a-n-1}(X_E/F^a)\$$.

URL de la page : <https://www.ihp.fr/fr/agenda/alexander-beilinson-relative-continuous-k-theory-and-cyclic-homology>



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