Séminaire de théorie des nombres

Le 13 novembre 2023 à 14h (PRG)

Chow trace of 1-motives and the Lang-Néron groups

Exposé de Long Liu
(IMJ-PRG)

Résumé : We show that in the case of primary field extensions, the extension of scalars of Deligne 1-motives admits a left adjoint, called Chow image, and a right adjoint, called Chow trace. This generalises W.-L. Chow's results on abelian varieties. Then we study the Chow trace in the framework of Voevodsky's triangulated category of motives. With respect to the 1-motivic t-structure on the category of Voevodsky's homological 1-motives, the zero-th direct image of an abelian variety is given by the Chow trace, and the first direct image is the 0-motive defined by the (geometric) Lang-Néron group.