Séminaire de théorie des nombres

Le 13 janvier 2020 à 14h (Jussieu)

Weight–Monodromy and Canonical Paths on Varieties

Exposé de Alexander Betts (MPIM)

Résumé : We discuss an analogue of Deligne's weight–monodromy conjecture for the pro-unipotent fundamental groupoids of smooth varieties over mixed characteristic local fields, proved in the l=p case by Vologodsky and in general in joint work with Daniel Litt. One surprising consequence of this is that any two points in a smooth variety are connected by a canonical choice of "path".

Time permitting, we will explain how, in the case of curves, these canonical paths admit a combinatorial description in terms of the reduction graph. This leads to a theory of refined Selmer varieties, and has consequences for the Chabauty–Kim method.