

Weil restriction, cellular structures and Milnor-Witt K-theory

The category of strictly $\mathbb{A}^1$ -invariant sheaves is central to the development of $\mathbb{A}^1$ -algebraic topology over a field. It is a nontrivial fact that this is an abelian, symmetric monoidal category. In this talk based on joint work with Fabien Morel, I will outline a fundamental computation in this category, namely that of the tensor product of the Milnor-Witt K-theory sheaf with the so-called free strictly $\mathbb{A}^1$ -invariant sheaf on a point, defined over a finite separable field extension of the base field. The computation is made possible by cellular $\mathbb{A}^1$ -homology introduced in our earlier joint work.