

François Loeser: Trace formulas in non-archimedean geometry.

The Grothendieck-Lefschetz trace formula provides a cohomological interpretation for the number of points of varieties over finite fields. Using motivic integration, I proved with Denef a trace formula that was later generalized by Nicaise and Sebag to varieties over the field of complex Laurent series. I will outline new proofs of these results, that are based on non-archimedean geometry instead of resolution of singularities. This is joint work with E. Hrushovski.