Kato, Kazuya; **Saito, Takeshi**
Ramification theory for varieties over a perfect field. (English) Zbl 1172.14011
Ann. Math. (2) 168, No. 1, 33-96 (2008).

The paper under review considers the Lefschetz trace-formula for correspondences acting on the étale cohomology of a smooth scheme over an algebraically closed field. The correspondences considered have no fixed-points so that the trace is given by "terms at infinity". If the scheme has a smooth compactification in which it is the complement of a divisor with simple normal crossings the authors prove that the trace is the degree of a 0-cycle which is the intersection with the log-diagonal. In general such a compactification exists for a finite cover (by de Jong) and one obtains a Q-cycle. It is shown that this Q-cycle is independant of choices. Finally the authors compute examples, define Swan conductors, and relate their theory to previously known special cases.

Reviewer: Gerd Faltings (Bonn)

MSC:

14F20 Étale and other Grothendieck topologies and (co)homologies

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