

**Actions of algebraic groups and mod ℓ étale equivariant cohomology algebras :
Quillen's theory revisited**

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Abstract:

This is joint work with W. Zheng. It grew out of questions of Serre on finite group actions and associated traces in étale cohomology. I will explain a few results on this topic, which led us to develop, in the context of mod ℓ étale cohomology and for actions of algebraic groups on schemes of finite type over an algebraically closed field, an analogue of a theory of equivariant cohomology constructed by Quillen for actions of compact Lie groups on topological spaces.