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Unramified cohomology groups of quadrics

Given a smooth, proper, integral variety X over a field F of characteristic not 2, let $F(X)$ denote the function field of X. The *unramified cohomology groups* of X are subgroups of the Galois cohomology groups of $F(X)$ and are birational invariants of X. If X/F is birational to projective space, then these groups coincide with the cohomology groups of F. We present some results obtained in joint work with B. Kahn and M. Rost on the unramified cohomology groups of smooth projective anisotropic quadrics over F (i. e. quadrics which do not have an F-rational point).