

Unitary descent properties

Eva Bayer–Fluckiger*

*Ecole Polytechnique Fédérale de Lausanne, Mathématiques,
EPFL–FSB–IMB–CSAG, Station 8, 1015 Lausanne, Switzerland
e-mail: eva.bayer@epfl.ch.*

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Abstract. Let k be a field of characteristic not 2, and let L be an odd degree Galois extension of k . A theorem of Rosenberg and Ware [6] states that $W(L)^{\text{Gal}(L/k)} = W(k)$. The present paper contains a generalization of the Rosenberg–Ware theorem to Witt groups of division algebras with involution. It also extends a descent result of Rost [7] concerning Witt groups in arbitrary odd degree extensions. Descent questions for hermitian forms and their relations to isotropy properties are also discussed, as well as descent in Galois cohomology. Finally, an application is given to bilinear forms invariant by finite groups.