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The descent of biquaternion algebras in characteristic two

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Abstract

We associate an invariant to a biquaternion algebra B over a field K with a subfield F such that K/F is a quadratic separable extension and $\text{char}(F) = 2$. We show that this invariant is trivial exactly when B is isomorphic to $B_0 \otimes_F K$ for some biquaternion algebra B_0 over F . We also discuss other related results.

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