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Integral equivalence of real algebraic function fields. (English) Zbl 1150.11420
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Summary: In this paper a quaternion-symbol equivalence of two formally real algebraic function fields over a common real closed field is dealt with. There are investigated the conditions for it to map Witt ring of one Dedekind domain onto the Witt ring of another Dedekind domain. There is found a necessary and sufficient condition for this property. It turns out to be analogous to S -integral equivalence known in the realms of algebraic number theory. In addition, the results concerning tame equivalence are strengthened. In particular, it is shown that any quaternion-symbol equivalence is tame at every real point at which it is defined.

MSC:

11E81 Algebraic theory of quadratic forms; Witt groups and rings

Cited in **3** Documents

Keywords:

Witt equivalence; tame equivalence; real algebraic curves