MR1055608 (91m:17049) 17D92 17C30
Micali, Artibano (F-MONT2); Ouattara, Moussa (F-MONT2)
Sur les algèbres de Jordan génétiques. II. (French) [On genetic Jordan algebras. II]

The authors first study genetic algebras $G_{mn}(\theta)$ over a commutative field $K$, corresponding to two series of $m+1$ and $n+1$ alleles and $\theta \in K$, that, if $0 \leq \theta \leq \frac{1}{2}$, are the algebras for two linked loci, $\theta$ being the recombination factor. They state that these algebras are Jordan algebras only if $\theta = \pm 1$, and, if $\theta \neq 0$, make evident both the conditions under which a $K$-linear mapping is a derivation or an automorphism. Then they study the same questions for Jordan algebras $A_{T,\omega}$ defined by means of the $K$-linear mappings $T: A \to A$ and $\omega: A \to K$, with $\omega \circ T = \omega$. Also they prove results on the dimensions of the Lie algebra’s inner derivations corresponding to Bernstein-Jordan algebras of type $(1+r,s)$. Finally they analyse the properties of the duplicate of a Jordan algebra focusing upon the derivations and automorphisms.

{For the entire collection see MR1055600 (90m:17045)}

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