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Sommario/riassunto

The author analyzes the abstract structure of algebraic groups over an algebraically closed field K. For K of characteristic zero and G a given connected affine algebraic \overline{\mathbb Q}-group, the main

theorem describes all the affine algebraic $\overline{\mathbb Q}$ -groups H such that the groups H(K) and G(K) are isomorphic as abstract groups. In the same time, it is shown that for any two connected algebraic $\overline{\mathbb Q}$ -groups G and H, the elementary equivalence of the pure groups G(K) and H(K) implies that they are abstractly isomorphic. In the final section, the author applies his results to characterize the connected algebraic groups, all of whose abstract automorphisms are standard, when K is either $\overline{\mathbb Q}$ or of positive characteristic. In characteristic zero, a fairly general criterion is exhibited.