

1. Record Nr.	UNINA9910793296603321
Autore	Frecon Olivier <1974->
Titolo	Algebraic Q-groups as abstract groups / / Olivier Frecon
Pubbl/distr/stampa	Providence, Rhode Island : , : American Mathematical Society, , [2018] ©2018
ISBN	1-4704-4815-7
Descrizione fisica	1 online resource (v, 99 pages)
Collana	Memoirs of the American Mathematical Society ; ; Number 1219
Disciplina	512.9
Soggetti	Algebra Finite groups Isomorphisms (Mathematics)
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	"September 2018 . Volume 255 . Number 1219 (second of 7 numbers)."
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Cover -- Title page -- Chapter 1. Introduction -- 1.1. Related work -- 1.2. The field of definition -- 1.3. Overview of the paper -- Chapter 2. Background material -- 2.1. Groups of finite Morley rank -- 2.2. Fundamental theorems -- 2.3. Decent tori and pseudo-tori -- 2.4. Unipotence -- Chapter 3. Expanded pure groups -- Chapter 4. Unipotent groups over $\text{ov}\{\mathbb{Q}\}$ and definable linearity -- Chapter 5. Definably affine groups -- 5.1. Definition and generalities -- 5.2. The subgroup () -- 5.3. The subgroup () -- Chapter 6. Tori in expanded pure groups -- Chapter 7. The definably linear quotients of an -group -- 7.1. The subgroups () and () -- 7.2. The nilpotence of () -- 7.3. The subgroup () when the ground field is $\text{ov}\{\mathbb{Q}\}$ -- 7.4. The subgroups () and () in positive characteristic -- Chapter 8. The group $_{} \{ \}$ and the Main Theorem for $=\text{ov}\{\mathbb{Q}\}$ -- Chapter 9. The Main Theorem for $=\text{ov}\{\mathbb{Q}\}$ -- Chapter 10. Bi-interpretability and standard isomorphisms -- 10.1. Positive characteristic and bi-interpretability -- 10.2. Characteristic zero -- Acknowledgements -- Bibliography -- Index of notations -- Index -- Back Cover.
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.
