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Note generali	"November 2020, volume 268, number 1307 (fourth of 6 numbers)."
Nota di bibliografia	Includes bibliographical references.
Nota di contenuto	Strategy for the proofs of theorems 5.1-9.1 -- Irreducible subgroups of G ₂ -- Irreducible subgroups of F ₄ -- Irreducible subgroups of G = E ₆ -- Irreducible subgroups of G = E ₇ -- Irreducible subgroups of G = E ₈ -- Corollaries -- Tables for theorem 1 -- Composition factors for G-irreducible subgroups -- Composition factors for the action of Levi subgroups.
Sommario/riassunto	"This monograph is a contribution to the study of the subgroup structure of exceptional algebraic groups over algebraically closed fields of arbitrary characteristic. Following Serre, a closed subgroup of a semisimple algebraic group G is called irreducible if it lies in no proper parabolic subgroup of G. In this paper we complete the classification of irreducible connected subgroups of exceptional

algebraic groups, providing an explicit set of representatives for the conjugacy classes of such subgroups. Many consequences of this classification are also given. These include results concerning the representations of such subgroups on various G -modules: for example, the conjugacy classes of irreducible connected subgroups are determined by their composition factors on the adjoint module of G , with one exception. A result of Liebeck and Testerman shows that each irreducible connected subgroup X of G has only finitely many overgroups and hence the overgroups of X form a lattice. We provide tables that give representatives of each conjugacy class of connected overgroups within this lattice structure. We use this to prove results concerning the subgroup structure of G : for example, when the characteristic is 2, there exists a maximal connected subgroup of G containing a conjugate of every irreducible subgroup A_1 of G'' .
