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Titolo	Maximal Solvable Subgroups of Finite Classical Groups / / by Mikko Korhonen
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Descrizione fisica	1 online resource (viii, 298 pages)
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Soggetti	Group theory Group Theory and Generalizations Teoria de grups Grups finits Llibres electrònics
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Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	- Introduction -- Basic structure of maximal irreducible solvable subgroups -- Extraspecial groups -- Metrically primitive maximal irreducible solvable subgroups -- Basic properties of $GB$ , $(X_1, \dots, X_k)$ -- Fixed point spaces and abelian subgroups -- Maximality of the groups constructed -- Examples.
Sommario/riassunto	This book studies maximal solvable subgroups of classical groups over finite fields. It provides the first modern account of Camille Jordan's classical results, and extends them, giving a classification of maximal irreducible solvable subgroups of general linear groups, symplectic groups, and orthogonal groups over arbitrary finite fields. A subgroup of a group $G$ is said to be maximal solvable if it is maximal among the solvable subgroups of $G$ . The history of this notion goes back to Jordan's <i>Traité</i> (1870), in which he provided a classification of maximal solvable subgroups of symmetric groups. The main difficulty is in the primitive case, which leads to the problem of classifying maximal irreducible solvable subgroups of general linear groups over a field of prime order. One purpose of this monograph is expository: to give a proof of Jordan's classification in modern terms. More generally, the

aim is to generalize these results to classical groups over arbitrary finite fields, and to provide other results of interest related to irreducible solvable matrix groups. The text will be accessible to graduate students and researchers interested in primitive permutation groups, irreducible matrix groups, and related topics in group theory and representation theory. The detailed introduction will appeal to those interested in the historical background of Jordan's work.

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