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Titolo	Normal 2-Coverings of the Finite Simple Groups and their Generalizations / / by Daniela Bubboloni, Pablo Spiga, Thomas Stefan Weigel
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Altri autori (Persone)	SpigaPablo WeigelThomas Stefan
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Nota di contenuto	- Introduction -- Preliminaries -- Linear groups -- Unitary groups -- Symplectic groups -- Odd dimensional orthogonal groups -- Orthogonal groups with Witt defect 1 -- Orthogonal groups with Witt defect 0 -- Proofs of the main theorems -- Almost simple groups having socle a sporadic simple group -- Dropping the maximality -- Degenerate normal 2-coverings.
Sommario/riassunto	This book provides a complete and comprehensive classification of normal 2-coverings of non-abelian simple groups and their generalizations. While offering readers a thorough understanding of these structures, and of the groups admitting them, it delves into the properties of weak normal coverings. The focal point is the weak normal covering number of a group G , the minimum number of proper subgroups required for every element of G to have a conjugate within

one of these subgroups, via an element of $\text{Aut}(G)$. This number is shown to be at least 2 for every non-abelian simple group and the non-abelian simple groups for which this minimum value is attained are classified. The discussion then moves to almost simple groups, with some insights into their weak normal covering numbers. Applications span algebraic number theory, combinatorics, Galois theory, and beyond. Compiling existing material and synthesizing it into a cohesive framework, the book gives a complete overview of this fundamental aspect of finite group theory. It will serve as a valuable resource for researchers and graduate students working on non-abelian simple groups.
