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Descrizione fisica	1 online resource (570 pages)
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Soggetti	Elementary particles (Physics) Quantum field theory Physics - Philosophy Geometry, Differential Mathematical physics Elementary Particles, Quantum Field Theory Philosophical Foundations of Physics and Astronomy Differential Geometry Theoretical, Mathematical and Computational Physics Mathematical Physics
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Nota di bibliografia	Includes bibliographical references at the end of each chapters.
Nota di contenuto	1 Finite Groups and Lie Algebras -- 2 Isometries and the Geometry of COSET Manifolds -- 3 Complex and Quaternionic Geometry -- 4 Special Geometries -- 5 Solvable Algebras and the TITS Satake Projection -- 6 Black Holes and Nilpotent Orbits -- 7 E7, F4 and supergravitiy scalar potentials -- 8 (Hyper)Kaehler Quotients, Ale-Manifolds and Cn/ Singularities -- 9 Epilogue -- 10 The Bibliography.
Sommario/riassunto	This book aims to provide an overview of several topics in advanced Differential Geometry and Lie Group Theory, all of them stemming from mathematical problems in supersymmetric physical theories. It presents a mathematical illustration of the main development in geometry and symmetry theory that occurred under the fertilizing influence of supersymmetry/supergravity. The contents are mainly of mathematical nature, but each topic is introduced by historical

information and enriched with motivations from high energy physics, which help the reader in getting a deeper comprehension of the subject. .