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Nota di contenuto	Introduction -- The Euler–Lagrange Equations and Noether's Theorem -- Scalar Fields -- Vector Fields -- Relativistic Spinor Fields -- The Quantum Theory of Free Fields -- Perturbative Expansion in the 44 Model -- Renormalization -- The Renormalization Group -- Relativistic Invariance and the Spectral Decomposition of G(2) -- Paths Integrals in QFT -- The Perturbative Expansion for Non-Abelian Gauge Fields -- The Simplest Supersymmetric Models -- Anomalies -- Appendices: Some facts about generalized functions.
Sommario/riassunto	This textbook addresses graduate students starting to specialize in theoretical physics. It provides didactic introductions to the main topics in the theory of fields, while taking into account the contemporary view of the subject. The student will find concise explanations of basic notions essential for applications of the theory of fields as well as for frontier research in theoretical physics. One third of the book is devoted to classical fields. Each chapter contains exercises of varying degree of difficulty with hints or solutions, plus summaries and worked examples as useful. It aims to deliver a unique combination of classical and quantum field theory in one compact course.