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Descrizione fisica	1 online resource (XX, 536 p. 83 illus., 23 illus. in color.)
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Soggetti	Superstring theories Quarks Leptons (Nuclear physics)
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Nota di contenuto	Introduction and Summary -- Standard Model and Beyond -- Orbifolds -- Spinors -- Field Theoretic Orbifolds -- Quantization of Strings -- Strings on Orbifolds -- Formal Construction -- Non-prime Orbifolds -- Interactions on Orbifolds -- Effective Action -- Algebraic Structure -- Orbifold Phenomenology -- String Unification -- Smooth Compactification -- Flavor Physics -- Other Constructions -- A. Useful Tables for Model Building.
Sommario/riassunto	This book is a guide for all those who want to explore the standard model using string theory. The approach pursued is "halfway" between a textbook and advanced research work and, accordingly, the book will allow both graduate students and particle phenomenologists to easily get acquainted with this fascinating field. In this new edition the authors report on the status quo of the standard model following the discovery of the Higgs Boson, as well as the latest results concerning physics beyond the standard model. They present a formal introduction to string orbifolds and explain in detail how the massless states and the Kaluza-Klein spectra can be derived from the partition function. In turn, they provide an overview of orbifold phenomenology, by introducing the key aspects of string orbifolds in the context of SUSY standard models. In closing, the authors discuss the Grand Unified

Theories (GUTs) from orbifolds and share key concepts regarding Calabi-Yau compactifications, M-theory and F-theory.
