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Nota di contenuto	Preface -- 1. The standard model and beyond -- 2. Supersymmetry -- 3. Introduction to string theory: the bosonic string -- 4. Superstrings -- 5. Toroidal compactification of superstrings -- 6. Branes and string duality -- 7. Calabi-Yau compactification of heterotic superstrings -- 8. Heterotic string orbifolds and other exact CFT constructions -- 9. Heterotic string compactifications: effective action -- 10. Type IIA orientifolds: intersecting brane worlds -- 11. Type IIB orientifolds -- 12. Type II compactifications: effective action -- 13. String instantons and effective field theory -- 14. Flux compactifications and moduli stabilization -- 15. Moduli stabilization and supersymmetry breaking in string theory -- 16. Further phenomenological properties. Strings and cosmology -- 17. The space of string vacua
Sommario/riassunto	"String theory is one of the most active branches of theoretical physics and has the potential to provide a unified description of all known particles and interactions. This book is a systematic introduction to the subject, focused on the detailed description of how string theory is connected to the real world of particle physics. Aimed at graduate students and researchers working in high energy physics, it provides explicit models of physics beyond the Standard Model. No prior knowledge of string theory is required as all necessary material is provided in the introductory chapters. The book provides particle phenomenologists with the information needed to understand string theory model building and describes in detail several alternative

approaches to model building, such as heterotic string compactifications, intersecting D-brane models, D-branes at singularities and F-theory

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