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| 1. Record Nr. | UNISA996466808203316 |
| Autore | Lüst Dieter |
| Titolo | Lectures on String Theory [[electronic resource] /] / by Dieter Lüst, Stefan Theisen |
| Pubbl/distr/stampa | Berlin, Heidelberg : , : Springer Berlin Heidelberg : , : Imprint : Springer, , 1989 |
| ISBN | 3-540-46857-9 |
| Edizione | [1st ed. 1989.] |
| Descrizione fisica | 1 online resource (VII, 348 p.) |
| Collana | Lecture Notes in Physics, , 0075-8450 ; ; 346 |
| Disciplina | 539.72 |
| Soggetti | Elementary particles (Physics) Quantum field theory Physics Quantum computers Spintronics Quantum physics Elementary Particles, Quantum Field Theory Mathematical Methods in Physics Numerical and Computational Physics, Simulation Quantum Information Technology, Spintronics Quantum Physics |
| Lingua di pubblicazione | Inglese |
| Formato | Materiale a stampa |
| Livello bibliografico | Monografia |
| Nota di contenuto | The classical bosonic string -- The quantized bosonic string -- to conformal field theory -- Reparametrization ghosts and BRST quantization -- Global aspects of string perturbation theory and riemann surfaces -- The classical closed fermionic string -- The quantized closed fermionic string -- Spin structures and superstring partition function -- Toroidal compactification of the closed bosonic string — 10-dimensional heterotic string -- Conformal field theory II: Lattices and Kac-Moody algebras -- Conformal field theory III: Superconformal field theory -- Bosonization of the fermionic string — Covariant lattices -- Heterotic strings in ten and four dimensions -- Low energy field theory. |

Sommario/riassunto

This book provides a self-contained introduction to string theory, at present one of the most exciting and fastest-growing areas in theoretical high-energy physics. Pedagogical in character, it introduces modern techniques and concepts, such as conformal and superconformal field theory, Kac-Moody algebras, etc., stressing their relevance and application to string theory rather than the formal aspects. The reader is led from a basic discussion of the classical bosonic string to the construction of four-dimensional heterotic string models, an area of current research. The so-called covariant lattice construction is discussed in detail. Being conceptually very simple, the book serves to exemplify the relevant features of other methods of arriving at four-dimensional string theories. It is also shown how one derives a low-energy field theory from string theory, thereby making contact with conventional point-particle physics.
