1. Record Nr. UNINA9910736982703321

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| Autore | Blumenhagen Ralph |
| Titolo | Basic Concepts of String Theory / / by Ralph Blumenhagen, Dieter Lüst, Stefan Theisen |
| Pubbl/distr/stampa | Berlin, Heidelberg : , : Springer Berlin Heidelberg : , : Imprint : Springer, , 2013 |
| ISBN | 3-642-29497-9 |
| Edizione | [1st ed. 2013.] |
| Descrizione fisica | 1 online resource (786 p.) |
| Collana | Theoretical and Mathematical Physics, , 1864-5879 |
| Disciplina | 539.7258 |
| Soggetti | Quantum field theory<br>String models<br>Mathematical physics<br>Physics<br>Quantum theory<br>Particles (Nuclear physics)<br>Quantum Field Theories, String Theory<br>Mathematical Physics<br>Mathematical Methods in Physics<br>Quantum Physics<br>Elementary Particles, Quantum Field Theory |
| Lingua di pubblicazione | Inglese |
| Formato | Materiale a stampa |
| Livello bibliografico | Monografia |
| Note generali | Description based upon print version of record. |
| Nota di bibliografia | Includes bibliographical references and index. |
| Nota di contenuto | The Classical Bosonic String -- The Quantized Bosonic String -- Introduction to Conformal Field Theory -- Parametrization Ghosts and BRST Quantization -- String Perturbation Theory and One-Loop Amplitudes -- The Classical Fermionic String -- The Quantized Fermionic String -- Superstrings -- Toroidal Compactifications – 10-Dimensional Heterotic String -- Conformal Field Theory II: Lattices and Kac-Moody Algebras -- Conformal Field Theory III: Superconformal Field Theory -- Covariant Vertex Operators, BRST and Covariant Lattices -- String Compactifications -- CFTs for Type II and Heterotic String Vacua -- String Scattering Amplitudes and Low Energy Effective Field Theory -- Compactifications of the Type II Superstring With D-branes and Fluxes -- String Dualities and M-theory. |

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| Sommario/riassunto | The purpose of this book is to thoroughly prepare the reader for research in string theory. It is intended as a textbook in the sense that, starting from the basics, the material is presented in a pedagogical and self-contained fashion. The emphasis is on the world-sheet perspective of closed strings and of open strings ending on D-branes, where two-dimensional conformal field theory is the main tool. Compactifications of string theory, with and without fluxes, and string dualities are also discussed from the space-time point of view, i. e. in geometric language. End-of-chapter references have been added to guide the reader intending to pursue further studies or to start research in the topics covered by this book. |