

1. Record Nr.	UNINA9910455339903321
Autore	Taylor John C (John Clayton), <1930->
Titolo	Hidden unity in nature's laws // John C. Taylor [[electronic resource]]
Pubbl/distr/stampa	Cambridge : , : Cambridge University Press, , 2001
ISBN	1-107-11690-2 0-511-61266-4 0-511-05213-8 0-511-15301-5 1-280-42051-0 0-511-17377-6 0-521-65938-8 0-511-30218-5 9786610420513
Descrizione fisica	1 online resource (xiii, 490 pages) : digital, PDF file(s)
Disciplina	530/.09
Soggetti	Physics - History
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Title from publisher's bibliographic system (viewed on 05 Oct 2015).
Nota di bibliografia	Includes bibliographical references (p. 477-479) and index.
Nota di contenuto	Cover; Half-title; Title; Copyright; CONTENTS; PREFACE; 1 MOTION ON EARTH AND IN THE HEAVENS; 2 ENERGY, HEAT AND CHANCE; 3 ELECTRICITY AND MAGNETISM; 4 LIGHT; 5 SPACE AND TIME; 6 LEAST ACTION; 7 GRAVITATION AND CURVED SPACETIME; 8 THE QUANTUM REVOLUTION; 9 QUANTUM THEORY WITH SPECIAL RELATIVITY; 10 ORDER BREAKS SYMMETRY; 11 QUARKS AND WHAT HOLDS THEM TOGETHER; 12 UNIFYING WEAK FORCES WITH QED; 13 GRAVITATION PLUS QUANTUM THEORY ... STARS AND BLACK HOLES; 14 PARTICLES, SYMMETRIES AND THE UNIVERSE; 15 QUERIES; APPENDIX A THE INVERSE-SQUARE LAW; APPENDIX B VECTORS AND COMPLEX NUMBERS APPENDIX C BROWNIAN MOTION APPENDIX D UNITS; GLOSSARY; BIBLIOGRAPHY; INDEX
Sommario/riassunto	As physics has progressed through the ages it has succeeded in explaining more and more diverse phenomena with fewer and fewer underlying principles. This lucid and wide-ranging book explains how

this understanding has developed by periodically uncovering unexpected 'hidden unities' in nature. The author deftly steers the reader on a fascinating path which goes to the heart of physics - the search and discovery of elegant laws which unify and simplify our understanding of the intricate Universe in which we live. Starting with the Ancient Greeks, the author traces the development of major concepts in physics right up to the present day. Throughout, the presentation is crisp and informative and only a minimum of mathematics is used. Any reader with a background in mathematics or physics will find this book a fascinating insight into the development of our fundamental understanding of the world, and the apparent simplicity underlying it.
