1. Record Nr. UNISA996466695103316

Autore	Khriplovich I.B
Titolo	Theoretical Kaleidoscope [[electronic resource] /] / by I.B. Khriplovich
Pubbl/distr/stampa	New York, NY : , : Springer New York : , : Imprint : Springer, , 2008
ISBN	0-387-75252-8
Edizione	[1st ed. 2008.]
Descrizione fisica	1 online resource (X, 98 p. 15 illus.)
Collana	Lecture Notes in Physics, , 0075-8450 ; ; 747
Disciplina	530.76
Soggetti	Elementary particles (Physics) Quantum field theory Quantum physics Physics Mathematical physics Nuclear physics Heavy ions Elementary Particles, Quantum Field Theory Quantum Physics Physics, general Theoretical, Mathematical and Computational Physics Nuclear Physics, Heavy Ions, Hadrons
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Bibliographic Level Mode of Issuance: Monograph
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Classical Mechanics. Unexpected Questions -- Wave Phenomena and Classical Electrodynamics Without Calculations -- Atomic Physics. Minimum Calculations -- Deuteron—The Hydrogen Atom of Nuclear Physics -- Semiclassical Approximation in Complex Plane -- Quantum Electrodynamics. Again Minimum Calculations.
Sommario/riassunto	According to Newton, "In studies of science, examples are more useful than rules." With Theoretical Kaleidoscope, by Iosif Khriplovich, many concrete problems in classical mechanics, classical electrodynamics, quantum mechanics, and relativistic quantum mechanics are solved. This book is not a systematic course on theoretical physics. Rather, it uses intuitive, qualitative arguments to solve selected problems of this remarkable science. The book is based on lectures given by the author

over many years. The main source of problems addressed in the book are taken from the author's own investigations, as well as discussions with colleagues and students. With this book, the author hopes readers will be able to see the examples and engage in thoughtful discussions and arguments of their own. Topics discussed in this book include: classical mechanics wave phenomena atomic physics semiclassical approximation in complex plane quantum electrodynamics Theoretical Kaleidoscope is intended for students and physicists, both theoretical and experimentalist, and those who will appreciate seeing theoretical physics through innovative qualitative analysis.