

1. Record Nr.	UNINA9910465493903321
Titolo	Chaos, complexity and transport [[electronic resource]] : theory and applications : proceedings of the CCT '07, Marseille, France, 23-27 May 2011 // edited by Xavier Leoncini, Marc Leonetti
Pubbl/distr/stampa	Hackensack, NJ ; ; Singapore, : World Scientific, c2012
ISBN	981-4405-64-7
Descrizione fisica	1 online resource (273 p.)
Altri autori (Persone)	LeonciniXavier LeonettiM (Marc)
Disciplina	005.446 530.4/4
Soggetti	Chaotic behavior in systems Transport theory Nonlinear theories Fluid dynamics Electronic books.
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.
Nota di contenuto	Preface; CONTENTS; Part A Classical Hamiltonian Dynamics; Resonant interaction of charged particles with electromagnetic waves A. A. Vasiliev, A. V. Artemyev, A. I. Neishtadt, D. L. Vainchtein and L. M. Zelenyi; 1. Introduction; 2. Main equations; 3. Single wave (non-relativistic case); 3.1. Normal propagation; 3.2. Oblique propagation; 4. Effects of the second wave; 4.1. Parallel propagation; 4.2. Nonparallel propagation; 5. Relativistic case; 6. Discussion and conclusions; Acknowledgments; References Superrelativistic charged particles acceleration by electromagnetic waves: Self-consistent model A. V. Artemyev, L. M. Zelenyi, and V. L. Krasovsky1. Introduction; 2. Wave-particle interaction; 3. Self-consistent approach; 4. Discussion and conclusions; Acknowledgments; References; Control of atomic transport using autoresonance D. V. Makarov, M. Yu. Uleysky and S. V. Prants; 1. Introduction; 2. Basic equations; 3. Classical dynamics; 4. Numerical simulation; 4.1. Classical autoresonance; 4.2. Quantum autoresonance; 5. Conclusion;

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6. State alternation

Sommario/riassunto

The main goal is to offer readers a panorama of recent progress in nonlinear physics, complexity and transport with attractive chapters readable by a broad audience. It allows readers to gain an insight into these active fields of research and notably promotes the interdisciplinary studies from mathematics to experimental physics. To reach this aim, the book collects a selection of contributions to the CCT11 conference (Marseille, 23 - 27 May 2011).
