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	Titolo	Analytical mechanics [[electronic resource]] : an introduction / / Antonio Fasano, Stefano Marmi ; translated by Beatrice Pelloni
	Pubbl/distr/stampa	Oxford ; ; New York, : Oxford University Press, c2006
	ISBN	1-383-02179-1 1-280-96502-9 0-19-151359-8
	Descrizione fisica	1 online resource (788 p.)
	Collana	Oxford graduate texts
	Altri autori (Persone)	MarmiS <1963-> (Stefano)
	Disciplina	531.01/515
	Soggetti	Mechanics, Analytic
	Lingua di pubblicazione	Inglese
	Formato	Materiale a stampa
	Livello bibliografico	Monografia
	Note generali	Series statement from jacket.
	Nota di bibliografia	Includes bibliographical references (p. [749]-758) and index.
	Nota di contenuto	Contents; 1 Geometric and kinematic foundations of Lagrangian mechanics; 2 Dynamics: general laws and the dynamics of a point particle; 3 One-dimensional motion; 4 The dynamics of discrete systems. Lagrangian formalism; 5 Motion in a central field; 6 Rigid bodies: geometry and kinematics; 7 The mechanics of rigid bodies: dynamics; 8 Analytical mechanics: Hamiltonian formalism; 9 Analytical mechanics: variational principles; 10 Analytical mechanics: canonical formalism; 11 Analytic mechanics: Hamilton-Jacobi theory and integrability; 12 Analytical mechanics: canonical perturbation theory 13 Analytical mechanics: an introduction to ergodic theory and to chaotic motion14 Statistical mechanics: kinetic theory; 15 Statistical mechanics: Gibbs sets; 16 Lagrangian formalism in continuum mechanics; Appendices; Bibliography; Index
	Sommario/riassunto	Is the solar system stable? Is there a unifying 'economy' principle in mechanics? How can a pointmass be described as a 'wave'? This book offers students an understanding of the most relevant and far reaching results of the theory of Analytical Mechanics, including plenty of examples, exercises, and solved problems. - ;Analytical Mechanics is the investigation of motion with the rigorous tools of mathematics. Rooted in the works of Lagrange, Euler, Poincar--eacute--; (to mention just a few), it is a very classical subject with fascinating developments

and still rich of open problems. It addres