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Titolo	Galactic Dynamics and N-Body Simulations [[electronic resource]] : Lectures Held at the Astrophysics School VI Organized by the European Astrophysics Doctoral Network (EADN) in Thessaloniki, Greece, 13–23 July 1993 // edited by G. Contopoulos, N.K. Spyrou, L. Vlahos
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Descrizione fisica	1 online resource (XIV, 417 p.)
Collana	Lecture Notes in Physics, , 0075-8450 ; ; 433
Disciplina	523.1/12
Soggetti	Geophysics Space sciences Physics Quantum computers Spintronics Quantum physics Geophysics/Geodesy Space Sciences (including Extraterrestrial Physics, Space Exploration and Astronautics) Mathematical Methods in Physics Numerical and Computational Physics, Simulation Quantum Information Technology, Spintronics Quantum Physics
Lingua di pubblicazione	Inglese
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Livello bibliografico	Monografia
Note generali	Bibliographic Level Mode of Issuance: Monograph
Nota di contenuto	Lectures on stellar dynamics -- Order and chaos -- Self-consistent models of spiral galaxies -- The study of instability in stellar dynamics -- Elliptical galaxies -- Direct methods for N-Body simulations -- Fundamentals of gas-dynamical simulations -- Galaxy formation.
Sommario/riassunto	This book provides an in-depth coverage of modern research on dynamical systems. The first part discusses stellar dynamics, integrable systems, the transition to chaos and instabilities in stellar dynamics as

well as the dynamics of spiral galaxies. Models are given and compared with observations. The second part is devoted to the direct method of N-body simulations, to gas dynamics simulations and to galaxy formation. Special care is taken to give to a pedagogical presentation of the material which makes this a unique text well suited for graduate courses in astrophysics.
