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Autore	Lichtenberg Allan J
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Nota di contenuto	1 Overview and Basic Concepts -- 2 Canonical Perturbation Theory -- 3 Mappings and Linear Stability -- 4 Transition to Global Stochasticity -- 5 Stochastic Motion and Diffusion -- 6 Three or More Degrees of Freedom -- 7 Bifurcation Phenomena and Transition to Chaos in Dissipative Systems -- 8 Chaotic Motion in Dissipative Systems -- Appendix A -- Applications -- A.1. Planetary Motion -- A.2. Accelerators and Beams -- A.3. Charged Particle Confinement -- A.4. Charged Particle Heating -- A.5. Chemical Dynamics -- A.6. Quantum Systems -- Author Index.
Sommario/riassunto	What's in a name? The original title of our book, Regular and Stochastic Motion, was chosen to emphasize Hamiltonian dynamics and the physical motion of bodies. The new edition is more evenhanded, with considerably more discussion of dissipative systems and dynamics not involving physical motion. To reflect this partial change of emphasis, we have substituted the more general terms in our title. The common usage of the new terms clarifies the emphasis of the book. The main change in the book has been to expand the sections on dissipative dynamics, including discussion of renormalization, circle maps, intermittancy, crises, transient chaos, multifractals, reconstruction, and

coupled mapping systems. These topics were either mainly in the mathemati- cal literature or essentially unstudied when our first edition was written. The volume of work in these areas has surpassed that in Hamiltonian dynamics within the past few years. We have also made changes in the Hamiltonian sections, adding many new topics such as more general transformation and stability theory, connected stochasticity in two-dimensional maps, converse KAM theory, new topics in diffusion theory, and an approach to equilibrium in many dimensions. Other sections such as mapping models have been revised to take into account new perspectives. We have also corrected a number of misprints and clarified various arguments with the help of colleagues and students, some of whom we acknowledge below. We have again chosen not to treat quantum chaos, partly due to our own lack ofacquaintance with the subject.