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Disciplina	530.1
Soggetti	Mathematical physics Theoretical, Mathematical and Computational Physics
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Nota di contenuto	Prologue Some ideas about strange attractors -- Chaotic dynamics in Hamiltonian systems with divided phase space -- Periodic and quasi-periodic orbits for twist maps -- Macroscopic behavior in a simple chaotic Hamiltonian system -- Quantum dynamics -- A universal transition from quasi-periodicity to Chaos — Abstract -- Self-generated diffusion and universal critical properties in chaotic systems -- Subharmonics and the transition to chaos -- Low dimensional dynamics and the period doubling scenario -- Strange attractors in fluid dynamics -- Experimental aspects of the period doubling scenario -- Entropy and smooth dynamics -- Imbedding of a one-dimensional endomorphism into a two-dimensional diffeomorphism. Implications -- Strange attractors for differential delay equations -- Stochastic perturbations of some strange attractors -- Solutions of stochastic differential equations and fractal trajectories -- Continuous bifurcation and dissipative structures associated with a soft mode recombination instability in semiconductors -- On the characterization of chaotic motions -- Complex bifurcations in a periodically forced normal form -- Topological entropy and scaling behaviour -- On the analytic structure of chaos in dynamical systems -- Type-III-intermittency in a smooth perturbation of the logistic system -- Irreversible evolution of dynamical systems -- Homoclinic and heteroclinic points in the henon

map -- The simple periodic orbits in the unimodal maps -- Modulation properties in decaying processes of the correlation function in a family of t-D maps -- Relaxation times and randomness for a nonlinear classical system -- Topological entropy on rotation sequences -- The Taylor-Green vortex : Fully developed turbulence and transition to spatial chaos -- Anharmonic systems in external periodic fields with chaotic behaviour -- Renormalization of non-analytical unimodal maps -- Critical fluctuations in a thermo-chemical instability -- The second order Melnikov integral applied to detect quasi-randomness -- The Fokker-Planck equation as a dynamical system -- On integrability of quadratic area preserving mappings in the plane -- Resonances: Key elements to the understanding of non linear oscillations -- On systems passing through resonances -- The Lyapunov characteristic numbers and the number of isolating integrals in galactic models -- On the periodic orbits of the Contopoulos Hamiltonian -- Feasibility of calculating dimension and topological entropy -- Diffusions generated from dynamical systems -- Report on the driven Josephson equation.
