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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

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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 guasi-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.