Record Nr. UNISA996466799303316 Dynamical Systems and Chaos [[electronic resource]]: Proceedings of **Titolo** the Sitges Conference on Statistical Mechanics Sitges, Barcelona/Spain September 5 – 11, 1982 / / edited by L. Garrido Berlin, Heidelberg:,: Springer Berlin Heidelberg:,: Imprint: Springer, Pubbl/distr/stampa **ISBN** 3-540-39594-6 Edizione [1st ed. 1983.] 1 online resource (XIV, 298 p.) Descrizione fisica Lecture Notes in Physics, , 0075-8450 ; ; 179 Collana 530.1 Disciplina Soggetti Mathematical physics Theoretical, Mathematical and Computational Physics Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Bibliographic Level Mode of Issuance: Monograph Note generali Nota di contenuto Prologue Some ideas about strange attractors -- Chaotic dynamics in

Hamiltonian systems with divided phase space -- Periodic and quasiperiodic orbits for twist maps -- Macroscopic behavior in a simple chaotic Hamiltonian system -- Quantum dynamics -- A universal transition from quasi-periodicity to Chaos — Abstract -- Selfgenerated 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 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.