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Titolo	Chaos, Kinetics and Nonlinear Dynamics in Fluids and Plasmas [[electronic resource]] : Proceedings of a Workshop Held in Carry-Le Rouet, France, 16–21 June 1997 / / edited by Sadruddin Benkadda, George M. Zaslavsky
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Nota di contenuto	Dynamics in a neigborhood of separatrices of an area-preserving map -- On smooth Hamiltonian flows limited to ergodic billiards -- Strong variation of global-transport properties in chaotic ensembles -- Sticky orbits of chaotic Hamiltonian dynamics -- Turbulence: Beyond phenomenology -- Forced and decaying 2D turbulence: Experimental study -- Anomalous diffusion in quasi-geostrophic flow -- Chaotic dynamics of passive particles in three-vortex system: Dynamical analysis -- Tokamap: A model of a partially stochastic toroidal

magnetic field -- Lagrangian chaos and the fast kinematic dynamo problem -- Turbulence scaling laws in fusion plasmas -- Bifurcation in first-order fermi acceleration and the origin of cosmic rays -- Dynamical aspects of photon acceleration -- Enhanced velocity diffusion in slow-growing 1-D langmuir turbulence -- Statistical mechanics of a self gravitating gas -- The arising and evolution of the passive tracer clusters in compressible random media -- Anomalous diffusion in the strong scattering limit: A Lévy walk approach -- On the equilibrium distribution of like-signed vortices in two dimensions -- Nonuniversality of transport for the standard map.

Sommario/riassunto

Over the last few years it has become apparent that fluid turbulence shares many common features with plasma turbulence, such as coherent structures and self-organization phenomena, passive scalar transport and anomalous diffusion. This book gathers very high level, current papers on these subjects. It is intended for scientists and researchers, lecturers and graduate students because of the review style of the papers.