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| Nota di contenuto | Lectures on the statistical thermodynamics of nonequilibrium steady states -- Non-equilibrium fluctuations: Noise and correlation functions in some systems -- Nonlinear transport and mode coupling in fluids under shear -- Non-equilibrium thermodynamics and statistical physics of the liquid-vapour interface -- Hydrodynamic interactions and transport-properties of suspensions -- Functional poisson brackets for nonlinear fluid mechanics equations -- Lorentz models revisited what one can learn from ants in a labyrinth -- Noise induced transitions -- An introduction to nonequilibrium problems involving electromagnetic radiation -- Scalar fluctuations from extended non-equilibrium thermodynamic states -- Extended thermodynamics and diffusion in binary mixtures -- Nonequilibrium plasma in highly photo-excited semiconductors -- Relaxation times in a bistable system: |

Theory and experiment -- Some dynamical aspects of the Freedericksz transition -- Local equilibrium approximation in Fokker-Planck models -- Brownian motion in concentrated suspensions -- Mutual diffusion in a binary mixture -- Comments on shock wave structure -- Generalized extended nonequilibrium thermodynamics of diffusion in paramagnetics -- Casuality problem in the relativistic kinetic theory -- Solution of the model Boltzmann-Lorentz equations for particles with spin -- A microscopic derivation of the generalized Onsager's theory -- Correlations in a laser with fluctuating pump parameter -- Integro-differential equation for the joint probability density of non-Markovian process. Properties of the correlation for short times -- Exact solutions for the stochastic Malthus-Verhulst model -- Density, electric field and voltage fluctuations around nonequilibrium steady states near the Gunn instability -- On energy exchange between multidimensional fluctuating systems in equilibrium -- Some recent advances in black hole thermodynamics.
