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Sommario/riassunto	This book contains a first systematic study of compressible fluid flows subject to stochastic forcing. The bulk is the existence of dissipative martingale solutions to the stochastic compressible Navier-Stokes equations. These solutions are weak in the probabilistic sense as well as in the analytical sense. Moreover, the evolution of the energy can be controlled in terms of the initial energy. We analyze the behavior of solutions in short-time (where unique smooth solutions exists) as well as in the long term (existence of stationary solutions). Finally, we investigate the asymptotics with respect to several parameters of the model based on the energy inequality. ContentsPart I: Preliminary results Elements of functional analysis Elements of stochastic analysis Part II: Existence theory Modeling fluid motion subject to random effects Global existence Local well-posedness Relative energy inequality and weak-strong uniqueness Part III: Applications Stationary

