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Nota di contenuto	Stochastic structure formations in random hydrodynamic flows -- Density field diffusion and clustering in random hydrodynamic flows -- Magnetic field diffusion and clustering in random magnetohydrodynamic flows -- Wave localization in randomly layered media -- Wave propagation in random media -- Appendices, Imbedding method in boundary-value wave problems.
Sommario/riassunto	In some cases, certain coherent structures can exist in stochastic dynamic systems almost in every particular realization of random parameters describing these systems. Dynamic localization in one-dimensional dynamic systems, vortexgenesis (vortex production) in hydrodynamic flows, and phenomenon of clustering of various fields in random media (i.e., appearance of small regions with enhanced content

of the field against the nearly vanishing background of this field in the remaining portion of space) are examples of such structure formation. The general methodology presented in Volume 1 is used in Volume 2 Coherent Phenomena in Stochastic Dynamic Systems to expound the theory of these phenomena in some specific fields of stochastic science, among which are hydrodynamics, magnetohydrodynamics, acoustics, optics, and radiophysics. The material of this volume includes particle and field clustering in the cases of scalar (density field) and vector (magnetic field) passive tracers in a random velocity field, dynamic localization of plane waves in layered random media, as well as monochromatic wave propagation and caustic structure formation in random media in terms of the scalar parabolic equation.