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Sommario/riassunto	This graduate-level text surveys the problems of earth and environmental sciences by means of theoretical models that have as an essential basis a purely random element. In addition to introducing students to spatiotemporal modeling as a fundamental methodology in the earth sciences, this volume illustrates the role of spatiotemporal modeling in the general framework of the scientific method.Starting with discussions of the science of the probable, the various theories of probability, and the physical significance of the random field model, the text explores a variety of problems in earth sci