

1. Record Nr.	UNINA9910450111703321
Autore	Takeyuki Hida
Titolo	An innovation approach to random fields [[electronic resource]] : application of white noise theory // Takeyuki Hida, Si Si
Pubbl/distr/stampa	Singapore ; ; London, : World Scientific, c2004
ISBN	1-281-87696-8 9786611876968 981-256-538-8
Descrizione fisica	1 online resource (204 p.)
Altri autori (Persone)	SiSi
Disciplina	519.23
Soggetti	Stochastic analysis Random fields Electronic books.
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Description based upon print version of record.
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Preface; Contents; 1. Introduction; 2. White Noise; 3. Poisson Noise; 4. Random Fields; 5 Gaussian Random Fields; 6 Some Non-Gaussian Random Fields; 7 Variational Calculus For Random Fields; 8 Innovation Approach; 9 Reversibility; 10 Applications; Appendix; Epilogue; List of Notations; Bibliography; Index
Sommario/riassunto	A random field is a mathematical model of evolutionary fluctuating complex systems parametrized by a multi-dimensional manifold like a curve or a surface. As the parameter varies, the random field carries much information and hence it has complex stochastic structure. The authors of this book use an approach that is characteristic: namely, they first construct innovation, which is the most elemental stochastic process with a basic and simple way of dependence, and then express the given field as a function of the innovation. They therefore establish an infinite-dimensional stochastic calculus, in partic