1. Record Nr. UNINA9910465426103321

Titolo	Wireless technologies in intelligent transportation systems [[electronic resource] /] / Ming-Tuo Zhou, Yan Zhang, and Laurence T. Yang, editors
Pubbl/distr/stampa	New York, : Nova Science Publishers, c2010
ISBN	1-61122-571-X
Descrizione fisica	1 online resource (419 p.)
Collana	Transportation issues, policies and R&D series
Altri autori (Persone)	ZhouMing-Tuo ZhangYan YangLaurence Tianruo
Disciplina	629.2/7
Soggetti	Intelligent transportation systems Wireless communication systems 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.

2. Record Nr. UNINA9910951905003321

Autore	Kulasiri Don
Titolo	Stochastic Differential Equations for Chemical Transformations in White Noise Probability Space : Wick Products and Computations / / by Don Kulasiri
Pubbl/distr/stampa	Singapore : , : Springer Nature Singapore : , : Imprint : Springer, , 2024
ISBN	9789819793921 9819793920
Edizione	[1st ed. 2024.]
Descrizione fisica	1 online resource (181 pages)
Collana	Physics and Astronomy Series
Disciplina	530.10285
Soggetti	Mathematical physics Computer simulation Differential equations Bioinformatics Biomathematics Computational Physics and Simulations Differential Equations Computational and Systems Biology Mathematical and Computational Biology
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di contenuto	Chapter 1. Introduction to Chemical transformations in far from equilibrium systems -- Chapter 2. A brief introduction to vectors spaces: succinct but pertinent summary for scientists -- Chapter 3. White noise probability spaces (Hermite polynomials and functions and their use in defining Weiner Chaos expansion) -- Chapter 4. Introduction to Skorohod integration and Malliavian derivatives—practical interpretations -- Chapter 5. Introduction to Wick Product and its algebra (analytical solutions to Wick product driven stochastic differential equations; Hermite transformations) -- Chapter 6. Numerical solutions to stochastic chemical reactions -- Chapter 7. Stochastic coupled reactions systems: Numerical solutions -- Chapter 8. Modelling chiral symmetry breaking and stability in a noisy

environment using Wick products—A case study.

Sommario/riassunto

This book highlights the applications of stochastic differential equations in white noise probability space to chemical reactions that occur in biology. These reactions operate in fluctuating environments and are often coupled with each other. The theory of stochastic differential equations based on white noise analysis provides a physically meaningful modelling framework. The Wick product-based calculus for stochastic variables is similar to regular calculus; therefore, there is no need for Ito calculus. Numerical examples are provided with novel ways to solve the equations. While the theory of white noise analysis is well developed by mathematicians over the past decades, applications in biophysics do not exist. This book provides a bridge between this kind of mathematics and biophysics.