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Titolo	Solid propellant chemistry, combustion, and motor interior ballistics [[electronic resource] /] / edited by Vigor Yang, Thomas B. Brill, Wu-Zhen Ren
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ISBN	1-60086-656-5 1-60086-437-6 1-61583-406-0
Descrizione fisica	1 online resource (1019 p.)
Collana	Progress in astronautics and aeronautics ; ; v. 185
Altri autori (Persone)	YangVigor BrillThomas B RenWu-Zhen
Disciplina	629.134/354
Soggetti	Solid propellants Solid propellant rockets Rocket engines - Combustion Ballistics, Interior Combustion Electronic books.
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Description based upon print version of record.
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Nota di contenuto	Propellant chemistry, synthesis, and formulation -- Combustion of solid energetic materials -- Motor interior ballistics.

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Autore	Poznyak Alexander S
Titolo	Advanced mathematical tools for automatic control engineers . Volume 2 Stochastic techniques / / Alexander S. Poznyak
Pubbl/distr/stampa	Oxford ; ; Amsterdam, : Elsevier, 2009
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Descrizione fisica	1 online resource (568 p.)
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Soggetti	Automatic control Engineering instruments
Lingua di pubblicazione	Inglese
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Note generali	Description based upon print version of record.
Nota di contenuto	Front cover; Half title page; Dedication; Title page; Copyright page; Contents; Preface; Notations and Symbols; List of Figures; List of Tables; PART I: Basics of Probability; Chapter 1. Probability Space; 1.1. Set operations, algebras and sigma-algebras; 1.2. Measurable and probability spaces; 1.3. Borel algebra and probability measures; 1.4. Independence and conditional probability; Chapter 2. Random Variables; 2.1. Measurable functions and random variables; 2.2. Transformation of distributions; 2.3. Continuous random variables; Chapter 3. Mathematical Expectation 3.1. Definition of mathematical expectation3.2. Calculation of mathematical expectation; 3.3. Covariance, correlation and independence; Chapter 4. Basic Probabilistic Inequalities; 4.1. Moment-type inequalities; 4.2. Probability inequalities for maxima of partial sums; 4.3. Inequalities between moments of sums and summands; Chapter 5. Characteristic Functions; 5.1. Definitions and examples; 5.2. Basic properties of characteristic functions; 5.3. Uniqueness and inversion; PART II: Discrete Time Processes; Chapter 6. Random Sequences; 6.1. Random process in discrete and continuous time 6.2. Infinitely often events6.3. Properties of Lebesgue integral with

probabilistic measure; 6.4. Convergence; Chapter 7. Martingales; 7.1. Conditional expectation relative to a sigma-algebra; 7.2. Martingales and related concepts; 7.3. Main martingale inequalities; 7.4. Convergence; Chapter 8. Limit Theorems as Invariant Laws; 8.1. Characteristics of dependence; 8.2. Law of large numbers; 8.3. Central limit theorem; 8.4. Logarithmic iterative law; PART III: Continuous Time Processes; Chapter 9. Basic Properties of Continuous Time Processes; 9.1. Main definitions; 9.2. Second-order processes
9.3. Processes with orthogonal and independent incrementsChapter 10. Markov Processes; 10.1. Definition of Markov property; 10.2. Chapman--Kolmogorov equation and transition function; 10.3. Diffusion processes; 10.4. Markov chains; Chapter 11. Stochastic Integrals; 11.1. Time-integral of a sample-path; 11.2. ?-stochastic integrals; 11.3. The Ito stochastic integral; 11.4. The Stratonovich stochastic integral; Chapter 12. Stochastic Differential Equations; 12.1. Solution as a stochastic process; 12.2. Solutions as diffusion processes; 12.3. Reducing by change of variables
12.4. Linear stochastic differential equationsPART IV: Applications; Chapter 13. Parametric Identification; 13.1. Introduction; 13.2. Some models of dynamic processes; 13.3. LSM estimating; 13.4. Convergence analysis; 13.5. Information bounds for identification methods; 13.6. Efficient estimates; 13.7. Robustification of identification procedures; Chapter 14. Filtering, Prediction and Smoothing; 14.1. Estimation of random vectors; 14.2. State-estimating of linear discrete-time processes; 14.3. State-estimating of linear continuous-time processes; Chapter 15. Stochastic Approximation
15.1. Outline of chapter

Sommario/riassunto

The second volume of this work continues the approach of the first volume, providing mathematical tools for the control engineer and examining such topics as random variables and sequences, iterative logarithmic and large number laws, differential equations, stochastic measurements and optimization, discrete martingales and probability space. It includes proofs of all theorems and contains many examples with solutions.It is written for researchers, engineers and advanced students who wish to increase their familiarity with different topics of modern and classical mathematics related to