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Autore	Holický Milan
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Nota di contenuto	Foreword -- 1 Introduction -- 2. Basic Concepts of Probability -- 3. Evaluation of Statistical Data.- 4. Distributions of Random Variables -- 5. Selected Models of Discrete Variables -- 6. Selected Models of Continuous Variables -- 7. Functions of Random Variables -- 8. Estimations of the Population Parameters -- 9. Fractiles of Random Variables -- 10. Testing of Statistical Hypotheses -- 11. Correlation and Regression -- 12. Random Functions -- Appendixes. .
Sommario/riassunto	The theory of probability and mathematical statistics is becoming an indispensable discipline in many branches of science and engineering. This is caused by increasing significance of various uncertainties affecting performance of complex technological systems. Fundamental concepts and procedures used in analysis of these systems are often based on the theory of probability and mathematical statistics. The book sets out fundamental principles of the probability theory,

supplemented by theoretical models of random variables, evaluation of experimental data, sampling theory, distribution updating and tests of statistical hypotheses. Basic concepts of Bayesian approach to probability and two-dimensional random variables, are also covered. Examples of reliability analysis and risk assessment of technological systems are used throughout the book to illustrate basic theoretical concepts and their applications. The primary audience for the book includes undergraduate and graduate students of science and engineering, scientific workers and engineers and specialists in the field of reliability analysis and risk assessment. Except basic knowledge of undergraduate mathematics no special prerequisite is required.
