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Titolo	Probabilistic and Statistical Methods in Cryptology [[electronic resource]] : An Introduction by Selected Topics / / by Daniel Neuenschwander
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Nota di contenuto	1 Classical Polyalphabetic Substitution Ciphers -- 2 RSA and Probabilistic Prime Number Tests -- 3 Factorization with Quantum Computers: Shor's Algorithm -- 4 Physical Random-Number Generators -- 5 Pseudo-random Number Generators -- 6 An Information Theory Primer -- 7 Tests for (Pseudo-)Random Number Generators -- 8 Diffie-Hellman Key Exchange -- 9 Differential Cryptanalysis -- 10 Semantic Security -- 11 *Algorithmic Complexity -- 12 Birthday Paradox and Meet-in-the-Middle Attack -- 13 Quantum Cryptography.
Sommario/riassunto	Cryptology nowadays is one of the most important areas of applied mathematics, building on deep results and methods from various areas of mathematics. This text is devoted to the study of stochastic aspects of cryptology. Besides classical topics from cryptology, the author presents chapters on probabilistic prime number tests, factorization with quantum computers, random-number generators, pseudo-

random-number generators, information theory, and the birthday paradox and meet-in-the-middle attack. In the light of the vast literature on stochastic results relevant for cryptology, this book is intended as an invitation and introduction for students, researchers, and practitioners to probabilistic and statistical issues in cryptology.
