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Soggetti	Computer science—Mathematics Discrete mathematics Algorithms Cryptography Data encryption (Computer science) Computer networks Electronic data processing—Management Coding theory Information theory Discrete Mathematics in Computer Science Cryptology Computer Communication Networks IT Operations Coding and Information Theory
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Bibliographic Level Mode of Issuance: Monograph
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Relationships Between CCZ and EA Equivalence Classes and Corresponding Code Invariants -- Boolean Functions -- Results on Constructions of Rotation Symmetric Bent and Semi-bent Functions -- Properties of a Family of Cryptographic Boolean Functions -- A New Transform Related to Distance from a Boolean Function (Extended Abstract) -- Constructing Hyper-Bent Functions from Boolean Functions with the Walsh Spectrum Taking the Same Value Twice --

Characterizations of Plateaued and Bent Functions in Characteristic -- Perfect Sequences -- A Method of Optimisation of the Exhaustive Computer Search for Perfect Sequences -- Almost Six-Phase Sequences with Perfect Periodic Autocorrelation Function -- A Construction for Perfect Periodic Autocorrelation Sequences -- A Simple Construction of Almost Perfect Quinary ASK and QAM Sequences -- Correlation of Arrays -- Inflation of Perfect Arrays Over the Basic Quaternions of Size $m \times n$ -- Families of 3D Arrays for Video Watermarking -- Relative Difference Sets -- The Nonexistence of $(18; 3; 18; 6)$ Relative Difference Sets -- Aperiodic Correlation -- Exhaustive Search for Optimal Minimum Peak Sidelobe Binary Sequences up to Length 80 -- The Inverse of the Star-Discrepancy Problem and the Generation of Pseudo-Random Numbers -- Pseudorandom Sequences and Stream Ciphers -- An Equivalence-Preserving Transformation of Shift Registers -- A Lattice Rational Approximation Algorithm for AFSRs Over Quadratic Integer Rings -- On the Lattice Structure of Inversive PRNG via the Additive Order -- Weaknesses in the Initialisation Process of the Common Scrambling Algorithm Stream Cipher -- Distribution Properties of Half-Sequence -- Crosscorrelation of Sequences -- A Note on Cross-Correlation Distribution Between a Ternary m -Sequence and Its Decimated Sequence -- Prime Numbers in Sequences -- Conjectures Involving Sequences and Prime Numbers -- OFDM and CDMA -- Optimal Sign Patterns for a Generalized Schmidl-Cox Method -- A Novel Construction of Asymmetric Sequence Pairs Set with Zero-Correlation Zone -- Frequency-Hopping Sequences On Low-Hit-Zone Frequency-Hopping Sequence Sets with Optimal Partial Hamming Correlation -- Improved Singleton Bound on Frequency Hopping Sequences.

Sommario/riassunto

This book constitutes the refereed proceedings of the 8th International Conference on Sequences and Their Applications, SETA 2014, held in Melbourne, VIC, Australia, in November 2014. The 24 full papers presented together with 2 invited papers were carefully reviewed and selected from 36 submissions. The papers have been organized in topical sections on Boolean functions, perfect sequences, correlation of arrays, relative difference sets, aperiodic correlation, pseudorandom sequences and stream ciphers, crosscorrelation of sequences, prime numbers in sequences, OFDM and CDMA, and frequency-hopping sequences.
