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Titolo	Sequences and Their Applications - SETA 2004 : Third International Conference, Seoul, Korea, October 24-28, 2004, Revised Selected Papers // edited by Tor Helleseth, Dilip Sarwate, Hong-Yeop Song, Kyeongcheol Yang
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Altri autori (Persone)	HellesethTor
Disciplina	515/.24
Soggetti	Coding theory Information theory Cryptography Data encryption (Computer science) Computer science Algorithms Numerical analysis Computer science - Mathematics Coding and Information Theory Cryptology Theory of Computation Numerical Analysis Symbolic and Algebraic Manipulation
Lingua di pubblicazione	Inglese
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Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Invited Papers -- A Survey of Some Recent Results on Bent Functions -- A Survey of the Merit Factor Problem for Binary Sequences -- A Survey of Feedback with Carry Shift Registers -- Univariate and Multivariate Merit Factors -- Complexity of Sequences I -- Discrete Fourier Transform, Joint Linear Complexity and Generalized Joint Linear Complexity of Multisequences -- Expected Value of the Linear Complexity of Two-Dimensional Binary Sequences -- Asymptotic

Behavior of Normalized Linear Complexity of Multi-sequences -- A Unified View on Sequence Complexity Measures as Isometries -- Complexity of Sequences II -- One-Error Linear Complexity over  $F_p$  of Sidelnikov Sequences -- On the Generalized Lauder-Paterson Algorithm and Profiles of the  $k$ -Error Linear Complexity for Exponent Periodic Sequences -- On the Computation of the Linear Complexity and the  $k$ -Error Linear Complexity of Binary Sequences with Period a Power of Two -- On the 2-Adic Complexity and the  $k$ -Error 2-Adic Complexity of Periodic Binary Sequences -- Perfect Sequences -- Almost-Perfect and Odd-Perfect Ternary Sequences -- Cross-Correlation Properties of Perfect Binary Sequences -- Sequence Constructions -- New Sets of Binary and Ternary Sequences with Low Correlation -- Improved  $p$ -ary Codes and Sequence Families from Galois Rings -- Quadriphase Sequences Obtained from Binary Quadratic Form Sequences -- New Families of  $p$ -Ary Sequences from Quadratic Form with Low Correlation and Large Linear Span -- Sequences over  $F_m$  -- On the Distribution of Some New Explicit Nonlinear Congruential Pseudorandom Numbers -- Distribution of  $r$ -Patterns in the Most Significant Bit of a Maximum Length Sequence over  $F_m$  -- Sequence Generator Properties and Applications -- Algebraic Feedback Shift Registers Based on Function Fields -- New LFSR-Based Cryptosystems and the Trace Discrete Log Problem (Trace-DLP) -- Cryptanalysis of a Particular Case of Klimov-Shamir Pseudo-Random Generator -- Generating Functions Associated with Random Binary Sequences Consisting of Runs of Lengths 1 and 2 -- Multi-dimensional Sequences -- Multi-continued Fraction Algorithm and Generalized B-M Algorithm over  $F_2$  -- A New Search for Optimal Binary Arrays with Minimum Peak Sidelobe Levels -- New Constructions of Quaternary Hadamard Matrices -- Spectral Orbits and Peak-to-Average Power Ratio of Boolean Functions with Respect to the  $\{I, H, N\}$   $n$  Transform -- Optics and OFDM Applications -- New Constructions and Bounds for 2-D Optical Orthogonal Codes -- Topics on Optical Orthogonal Codes -- Weighted Degree Trace Codes for PAPR Reduction -- Polynomials and Functions -- Which Irreducible Polynomials Divide Trinomials over  $GF(2)$ ? -- Autocorrelation Properties of Resilient Functions and Three-Valued Almost-Optimal Functions Satisfying  $PC(p)$  -- Group Algebras and Correlation Immune Functions.

## Sommario/riassunto

This volume contains the refereed proceedings of the 3rd International Conference on Sequences and Their Applications (SETA 2004), held in Seoul, Korea during October 24–28, 2004. The previous two conferences, SETA 1998 and SETA 2001, were held in Singapore and Bergen, Norway, respectively. These conferences are motivated by the many widespread applications of sequences in modern communication systems. These applications include pseudorandom sequences in spread spectrum systems, code-division multiple-access, stream ciphers in cryptography and several connections to coding theory. The Technical Program Committee of SETA 2004 received 59 submitted papers, many more than the submissions to previous SETA conferences. The Committee therefore had the difficult task of selecting the 33 papers to be presented at the Conference in addition to four invited papers. The authors of papers presented at the conference were invited to submit full papers that were refereed before appearing in this proceedings. These proceedings have been edited by the Co-chairs of the Technical Program Committee for SETA 2004: Tor Helleseth of the University of Bergen, Norway, and Dilip Sarwate of the University of Illinois at Urbana-Champaign, USA, and Technical Program Committee members Hong-Yeop Song of Yonsei University, Korea, and Kyeongcheol Yang of Pohang University of Science and Technology,

Korea.

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