

Prof. Dr. FERRUH ÖZBUDAK

Kişisel Bilgiler

E-posta: ozbudak@metu.edu.tr

Web: <https://avesis.metu.edu.tr/ozbudak>

Uluslararası Araştırmacı ID'leri

ScholarID: io11MRcAAAAJ

ORCID: 0000-0002-1694-9283

Publons / Web Of Science ResearcherID: AAZ-6893-2020

ScopusID: 6603589033

Yoksis Araştırmacı ID: 2212

Eğitim Bilgileri

Doktora, İhsan Doğramacı Bilkent Üniversitesi, Fen Fakültesi, Matematik Bölümü, Türkiye 1995 - 1997

Yüksek Lisans, İhsan Doğramacı Bilkent Üniversitesi, Fen Fakültesi, Matematik Bölümü, Türkiye 1993 - 1995

Lisans, İhsan Doğramacı Bilkent Üniversitesi, Mühendislik Fakültesi, Elektrik-Elektronik Mühendisliği Bölümü, Türkiye 1988 - 1993

Yabancı Diller

İngilizce, C1 İleri

Yaptığı Tezler

Doktora, Character sums, algebraic function fields, curves with many rational points and geometric Goppa codes, Bilkent Üniversitesi, Fen Fakültesi, Matematik Bölümü, 1997

Yüksek Lisans, On lower bounds of character sums, Bilkent Üniversitesi, Fen Fakültesi, Matematik Bölümü, 1995

Araştırma Alanları

Matematik, Cebirsel Geometri, Cisim Kuramı ve Polinomlar, Genel Cebirsel Sistemler, Kombinatorik, Sayılar Kuramı, Temel Bilimler

Akademik İdari Deneyim

Orta Doğu Teknik Üniversitesi, Uygulamalı Matematik Enstitüsü, Kriptografi Anabilim Dalı, 2007 - Devam Ediyor

Yönetilen Tezler

ÖZBUDAK F., Studies on almost perfect nonlinear functions, Yüksek Lisans, G.BATMAZ(Öğrenci), 2022

ÖZBUDAK F., Some studies on CCZ-equivalence of the inverse function, Yüksek Lisans, M.FİDAN(Öğrenci), 2021

- ÖZBUDAK F., Studies on implementation of some mrd codes, Yüksek Lisans, R.ÖZKERİM(Öğrenci), 2021
- ÖZBUDAK F., Some studies on c-differential uniformity of the swapped inverse function, Yüksek Lisans, B.ÜNVER(Öğrenci), 2021
- ÖZBUDAK F., Dizilerin korelasyonu ve kuadratik formlar, Yüksek Lisans, C.Genişel(Öğrenci), 2017
- ÖZBUDAK F., Sonlu cisimler ve sonlu tam sayı halkaları modulo pm üzerinde düzenli, zayıfça düzenli ve zayıfça olmayan düzenli bükük fonksiyonların üretilmesi üzerine, Doktora, D.Çelik(Öğrenci), 2014
- ÖZBUDAK F., Keyfi bir grup üzerindeki bent fonksiyonları ile PN fonksiyonları, Yüksek Lisans, E.Sercan(Öğrenci), 2012
- ÖZBUDAK F., Sonlu cisimler üzerinde bir çok rasyonel noktası olan Drinfeld modüler eğrileri, Doktora, V.Cam(Öğrenci), 2011
- ÖZBUDAK F., Periyodik dizilerin beklenen doğrusal karmaşıklık değeri., Yüksek Lisans, Ç.Özakın(Öğrenci), 2004

SCI, SSCI ve AHCI İndekslerine Giren Dergilerde Yayınlanan Makaleler

- I. **Construction of self dual codes from graphs**
Fellah N., Guenda K., ÖZBUDAK F., Seneviratne P.
APPLICABLE ALGEBRA IN ENGINEERING COMMUNICATION AND COMPUTING, cilt.35, sa.4, ss.545-556, 2024 (SCI-Expanded)
- II. **The c-differential uniformity of the perturbed inverse function via a trace function $\text{Tr}(x^2x+1)$**
KAYTANCI K., ÖZBUDAK F.
Periodica Mathematica Hungarica, cilt.88, sa.2, ss.384-395, 2024 (SCI-Expanded)
- III. **On subfield subcodes obtained from restricted evaluation codes**
Güneri C., ÖZBUDAK F., Sayıcı S.
Designs, Codes, and Cryptography, cilt.92, sa.3, ss.667-680, 2024 (SCI-Expanded)
- IV. **Further constructions and characterizations of generalized almost perfect nonlinear functions**
Sălăgean A., ÖZBUDAK F.
Cryptography and Communications, cilt.15, sa.6, ss.1117-1127, 2023 (SCI-Expanded)
- V. **Quasi-Cyclic Perfect Codes in Doob Graphs and Special Partitions of Galois Rings**
Shi M., Li X., Krotov D. S., ÖZBUDAK F.
IEEE Transactions on Information Theory, cilt.69, sa.9, ss.5597-5603, 2023 (SCI-Expanded)
- VI. **Complete characterization of some permutation polynomials of the form $xr(1+axs_1(q-1)+bxs_2(q-1))$ over F_{q^2}**
ÖZBUDAK F., Temür B. G.
Cryptography and Communications, cilt.15, sa.4, ss.775-793, 2023 (SCI-Expanded)
- VII. **Optimal Binary Linear Complementary Pairs of Codes**
Choi W., GÜNERİ C., Kim J., ÖZBUDAK F.
CRYPTOGRAPHY AND COMMUNICATIONS-DISCRETE-STRUCTURES BOOLEAN FUNCTIONS AND SEQUENCES, cilt.15, sa.2, ss.469-486, 2023 (SCI-Expanded)
- VIII. **Classification of some quadrinomials over finite fields of odd characteristic**
Özbudak F., Gulmez Temur B. o. T.
FINITE FIELDS AND THEIR APPLICATIONS, cilt.87, ss.102158, 2023 (SCI-Expanded)
- IX. **EUCLIDEAN POLYNOMIALS FOR CERTAIN ARITHMETIC PROGRESSIONS AND THE MULTIPLICATIVE GROUP OF $F-p^2$**
Berktaş K. I., ÖZBUDAK F.
QUAESTIONES MATHEMATICAE, cilt.46, sa.7, ss.1283-1292, 2023 (SCI-Expanded)
- X. **Boomerang uniformity of power permutations and algebraic curves over F_{2^n}**
Mesnager S., ÖZBUDAK F.
Advances in Geometry, cilt.23, sa.1, ss.107-134, 2023 (SCI-Expanded)
- XI. **On diamond products ensuring irreducibility of the associated composed product**
İrimağzi C., ÖZBUDAK F.
Communications in Algebra, cilt.51, sa.7, ss.3134-3142, 2023 (SCI-Expanded)

- XII. **Imprimitive symmetric association schemes of classes 5 and 6 arising from ternary non-weakly regular bent functions**
 ÖZBUDAK F., Pelen R. M.
 JOURNAL OF ALGEBRAIC COMBINATORICS, cilt.56, sa.3, ss.635-658, 2022 (SCI-Expanded)
- XIII. **Additive cyclic complementary dual codes over F_4**
 Shi M., Liu N., ÖZBUDAK F., Solé P.
 Finite Fields and their Applications, cilt.83, 2022 (SCI-Expanded)
- XIV. **Classification of permutation polynomials of the form $x^3g(xq-1)$ of F_{q^2} where $g(x) = x^3 + bx + c$ and $b, c \in F_{q^*}$**
 ÖZBUDAK F., Gülmez Temür B.
 Designs, Codes, and Cryptography, cilt.90, sa.7, ss.1537-1556, 2022 (SCI-Expanded)
- XV. **Factorization of some polynomials over finite local commutative rings and applications to certain self-dual and LCD codes**
 Koese S., ÖZBUDAK F.
 CRYPTOGRAPHY AND COMMUNICATIONS-DISCRETE-STRUCTURES BOOLEAN FUNCTIONS AND SEQUENCES, cilt.14, sa.4, ss.933-948, 2022 (SCI-Expanded)
- XVI. **Covering Radius of Melas Codes**
 Shi M., Hellesteth T., Özbudak F., Solé P.
 IEEE Transactions on Information Theory, cilt.68, sa.7, ss.4354-4364, 2022 (SCI-Expanded)
- XVII. **Two or Three Weight Linear Codes from Non-Weakly Regular Bent Functions**
 Özbudak F., Pelen R. M.
 IEEE Transactions on Information Theory, cilt.68, sa.5, ss.3014-3027, 2022 (SCI-Expanded)
- XVIII. **Complete b-symbol weight distribution of some irreducible cyclic codes**
 Zhu H., Shi M., ÖZBUDAK F.
 DESIGNS CODES AND CRYPTOGRAPHY, cilt.90, sa.5, ss.1113-1125, 2022 (SCI-Expanded)
- XIX. **New constructions of entanglement-assisted quantum codes**
 Allahmadi A., AlKenani A., Hijazi R., Muthana N., ÖZBUDAK F., Solé P.
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- XX. **LCD codes from tridiagonal Toeplitz matrices**
 Shi M., ÖZBUDAK F., Xu L., Solé P.
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- XXI. **CORRELATION DISTRIBUTION OF A SEQUENCE FAMILY GENERALIZING SOME SEQUENCES OF TRACHTENBERG**
 ÖZBUDAK F., Tekin E.
 ADVANCES IN MATHEMATICS OF COMMUNICATIONS, cilt.15, sa.4, ss.647-662, 2021 (SCI-Expanded)
- XXII. **Geometric Approach to b-Symbol Hamming Weights of Cyclic Codes**
 Shi M., Özbudak F., Solé P.
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- XXIII. **New generalized almost perfect nonlinear functions**
 ÖZBUDAK F., Salagean A.
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- XXIV. **On the Parity of Power Permutations**
 Comak P., ÖZBUDAK F.
 IEEE Access, cilt.9, ss.106806-106812, 2021 (SCI-Expanded)
- XXV. **Hermitian Rank Metric Codes and Duality**
 La Cruz J. D., Evilla J. R., ÖZBUDAK F.
 IEEE ACCESS, cilt.9, ss.38479-38487, 2021 (SCI-Expanded)
- XXVI. **Secondary constructions of (non)weakly regular plateaued functions over finite fields**
 Mesnager S., ÖZBUDAK F., Sinak A.
 TURKISH JOURNAL OF MATHEMATICS, cilt.45, ss.2295-2306, 2021 (SCI-Expanded)
- XXVII. **Counting Boolean functions with faster points**

- Salagean A., ÖZBUDAK F.
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- XXVIII. **Subspace packings: constructions and bounds**
Etzion T., Kurz S., Otał K., ÖZBUDAK F.
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- XXIX. **Duals of non-weakly regular bent functions are not weakly regular and generalization to plateaued functions**
ÖZBUDAK F., PELEN R. M.
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- XXX. **Strongly regular graphs arising from non-weakly regular bent functions**
ÖZBUDAK F., PELEN R. M.
CRYPTOGRAPHY AND COMMUNICATIONS-DISCRETE-STRUCTURES BOOLEAN FUNCTIONS AND SEQUENCES, cilt.11, sa.6, ss.1297-1306, 2019 (SCI-Expanded)
- XXXI. **A concatenated construction of linear complementary pair of codes**
GÜNERİ C., ÖZBUDAK F., Sacikara E.
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- XXXII. **On q-ary plateaued functions over F-q and their explicit characterizations**
Mesnager S., ÖZBUDAK F., Sinak A., Cohen G.
EUROPEAN JOURNAL OF COMBINATORICS, cilt.80, ss.71-81, 2019 (SCI-Expanded)
- XXXIII. **Constructing sequences with high nonlinear complexity using the Weierstrass semigroup of a pair of distinct points of a Hermitian curve**
Geil O., Ozbudak F., Ruano D.
SEMIGROUP FORUM, cilt.98, sa.3, ss.543-555, 2019 (SCI-Expanded)
- XXXIV. **On affine variety codes from the Klein quartic**
Geil O., ÖZBUDAK F.
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- XXXV. **Linear codes from weakly regular plateaued functions and their secret sharing schemes**
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- XXXVI. **CYLOTOMIC FUNCTION FIELDS OVER FINITE FIELDS WITH CLASS NUMBER THREE**
Bilhan M., Buyruk D., ÖZBUDAK F.
JOURNAL OF THE KOREAN MATHEMATICAL SOCIETY, cilt.56, sa.2, ss.559-578, 2019 (SCI-Expanded)
- XXXVII. **SELF-DUALITY OF GENERALIZED TWISTED GABIDULIN CODES**
Otał K., ÖZBUDAK F., Willems W.
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- XXXVIII. **On Linear Complementary Pairs of Codes**
CARLET C., Guneri C., ÖZBUDAK F., Ozkaya B., SOLE P.
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- XXXIX. **New cubic self-dual codes of length 54, 60 and 66**
Comak P., Kim J. L., Ozbudak F.
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- XL. **On the p-ary (cubic) bent and plateaued (vectorial) functions**
MESNAGER S., ÖZBUDAK F., Sinak A.
DESIGNS CODES AND CRYPTOGRAPHY, cilt.86, sa.8, ss.1865-1892, 2018 (SCI-Expanded)
- XLI. **Additive cyclic codes over finite commutative chain rings**
Martinez-Moro E., Otał K., ÖZBUDAK F.
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- XLII. **Generalized nonbinary sequences with perfect autocorrelation, flexible alphabets and new periods**

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- XLIII. **Explicit Full Correlation Distribution of Sequence Families Using Plateaued Functions**
BOZTAŞ S., ÖZBUDAK F., TEKİN E.
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- XLIV. **Some new non-additive maximum rank distance codes**
Otal K., Ozbudak F.
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- XLV. **A new concatenated type construction for LCD codes and isometry codes**
CARLET C., Guneri C., ÖZBUDAK F., SOLÉ P.
DISCRETE MATHEMATICS, cilt.341, sa.3, ss.830-835, 2018 (SCI-Expanded)
- XLVI. **A SUPER-SET OF PATTERSON-WIEDEMANN FUNCTIONS: UPPER BOUNDS AND POSSIBLE NONLINEARITIES**
Kavut S., MAİTRA S., ÖZBUDAK F.
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- XLVII. **Cyclic subspace codes via subspace polynomials**
Otal K., ÖZBUDAK F.
DESIGNS CODES AND CRYPTOGRAPHY, cilt.85, sa.2, ss.191-204, 2017 (SCI-Expanded)
- XLVIII. **Structure and performance of generalized quasi-cyclic codes**
Guneri C., ÖZBUDAK F., Ozkaya B., Sacikara E., SEPASDAR Z., SOLÉ P.
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- XLIX. **ON COMPLEMENTARY DUAL ADDITIVE CYCLIC CODES**
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- L. **Hasse-Weil bound for additive cyclic codes**
Guneri C., ÖZBUDAK F., Ozdemir F.
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- LI. **Additive Rank Metric Codes**
Otal K., ÖZBUDAK F.
IEEE TRANSACTIONS ON INFORMATION THEORY, cilt.63, sa.1, ss.164-168, 2017 (SCI-Expanded)
- LII. **Explicit maximal and minimal curves over finite fields of odd characteristics**
ÖZBUDAK F., Saygi Z.
FINITE FIELDS AND THEIR APPLICATIONS, cilt.42, ss.81-92, 2016 (SCI-Expanded)
- LIII. **A minimum distance bound for quasi-nD-cyclic codes**
ÖZBUDAK F., Ozkaya B.
FINITE FIELDS AND THEIR APPLICATIONS, cilt.41, ss.193-222, 2016 (SCI-Expanded)
- LIV. **Switchings of semifield multiplications**
Hou X., ÖZBUDAK F., ZHOU Y.
DESIGNS CODES AND CRYPTOGRAPHY, cilt.80, sa.2, ss.217-239, 2016 (SCI-Expanded)
- LV. **EXPLICIT CONSTRUCTIONS OF SOME NON-GABIDULIN LINEAR MAXIMUM RANK DISTANCE CODES**
Otal K., Ozbudak F.
ADVANCES IN MATHEMATICS OF COMMUNICATIONS, cilt.10, sa.3, ss.589-600, 2016 (SCI-Expanded)
- LVI. **Further results on rational points of the curve $y(qn) - y = \gamma xqh + 1 - \alpha$ over F_{qm}**
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- LVII. **FURTHER RESULTS ON FIBRE PRODUCTS OF KUMMER COVERS AND CURVES WITH MANY POINTS OVER FINITE FIELDS**
ÖZBUDAK F., Temur B. G., YAYLA O.
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- LVIII. **Classification of function fields with class number three**

- BİLHAN M., Buyruk D., ÖZBUDAK F.
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- LIX. **A construction of weakly and non-weakly regular bent functions over the ring of integers modulo**
 ÇELİK D., ÖZBUDAK F.
 APPLICABLE ALGEBRA IN ENGINEERING COMMUNICATION AND COMPUTING, cilt.26, sa.6, ss.543-554, 2015 (SCI-Expanded)
- LX. **On some bounds on the minimum distance of cyclic codes over finite fields**
 ÖZBUDAK F., TUTDERE S., YAYLA O.
 Designs, Codes, and Cryptography, cilt.76, sa.2, ss.173-178, 2015 (SCI-Expanded)
- LXI. **On the exact number of solutions of certain linearized equations**
 ÖZBUDAK F., SAYGI Z.
 DESIGNS CODES AND CRYPTOGRAPHY, cilt.73, sa.2, ss.457-468, 2014 (SCI-Expanded)
- LXII. **ON THE NUMBER OF QUADRATIC FORMS HAVING CODIMENSION 2 RADICALS IN CHARACTERISTIC 2 GIVING MAXIMAL/MINIMAL CURVES**
 ÖZBUDAK F., SAYGI Z.
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- LXIII. **Uniqueness of F - q -quadratic perfect nonlinear maps from F - q^3 to F - $q(2)$**
 Oezbudak F., POTT A.
 FINITE FIELDS AND THEIR APPLICATIONS, cilt.29, ss.49-88, 2014 (SCI-Expanded)
- LXIV. **Hybrid classes of balanced Boolean functions with good cryptographic properties**
 Khan M. A., ÖZBUDAK F.
 INFORMATION SCIENCES, cilt.273, ss.319-328, 2014 (SCI-Expanded)
- LXV. **On the arithmetic operations over finite fields of characteristic three with low complexity**
 AKLEYLEK S., ÖZBUDAK F., ÖZEL C. S.
 JOURNAL OF COMPUTATIONAL AND APPLIED MATHEMATICS, cilt.259, ss.546-554, 2014 (SCI-Expanded)
- LXVI. **Finite number of fibre products of Kummer covers and curves with many points over finite fields**
 ÖZBUDAK F., GÜLMEZ TEMÜR B.
 DESIGNS CODES AND CRYPTOGRAPHY, cilt.70, sa.3, ss.385-404, 2014 (SCI-Expanded)
- LXVII. **Improved probabilistic decoding of interleaved Reed-Solomon codes and folded Hermitian codes**
 ÖZBUDAK F., Yayla O.
 THEORETICAL COMPUTER SCIENCE, cilt.520, ss.111-123, 2014 (SCI-Expanded)
- LXVIII. **A New Representation of Elements of Binary Fields with Subquadratic Space Complexity Multiplication of Polynomials**
 ÖZBUDAK F., AKLEYLEK S., Cenk M.
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- LXIX. **On the generalisation of special moduli for faster interleaved montgomery modular multiplication**
 AKLEYLEK S., CENK M., ÖZBUDAK F.
 IET INFORMATION SECURITY, cilt.7, sa.3, ss.165-171, 2013 (SCI-Expanded)
- LXX. **The Concatenated Structure of Quasi-Cyclic Codes and an Improvement of Jensen's Bound**
 Guneri C., ÖZBUDAK F.
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- LXXI. **An exhaustive computer search for finding new curves with many points among fibre products of two Kummer covers over F -5 and F -7**
 ÖZBUDAK F., GÜLMEZ TEMÜR B., Yayla O.
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- LXXII. **Polycyclic codes over Galois rings with applications to repeated-root constacyclic codes**
 Lopez-Permouth S. R., Ozadam H., ÖZBUDAK F., SZABO S.
 FINITE FIELDS AND THEIR APPLICATIONS, cilt.19, sa.1, ss.16-38, 2013 (SCI-Expanded)
- LXXIII. **Planarity of products of two linearized polynomials**
 KYUREGHYAN G., ÖZBUDAK F.

- FINITE FIELDS AND THEIR APPLICATIONS, cilt.18, sa.6, ss.1076-1088, 2012 (SCI-Expanded)
- LXXIV. **Lecture Notes in Computer Science (including subseries Lecture Notes in Artificial Intelligence and Lecture Notes in Bioinformatics): Preface**
ÖZBUDAK F., Rodríguez-Henríquez F.
Lecture Notes in Computer Science (including subseries Lecture Notes in Artificial Intelligence and Lecture Notes in Bioinformatics), 2012 (SCI-Expanded)
- LXXV. **On the Polynomial Multiplication in Chebyshev Form**
Akleyek S., Cenk M., ÖZBUDAK F.
IEEE TRANSACTIONS ON COMPUTERS, cilt.61, sa.4, ss.584-587, 2012 (SCI-Expanded)
- LXXVI. **Quadratic forms of codimension 2 over finite fields containing F_4 and Artin-Schreier type curves**
ÖZBUDAK F., SAYGI E., Saygi Z.
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- LXXVII. **Modified Redundant Representation for Designing Arithmetic Circuits with Small Complexity**
AKLEYEK S., ÖZBUDAK F.
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- LXXVIII. **A new class of quaternary LCZ sequence sets**
ÖZBUDAK F., SAYGI E., SAYGI Z.
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- LXXIX. **A BOUND ON THE MINIMUM DISTANCE OF QUASI-CYCLIC CODES**
Gueneri C., Oezbudak F.
SIAM JOURNAL ON DISCRETE MATHEMATICS, cilt.26, sa.4, ss.1781-1796, 2012 (SCI-Expanded)
- LXXX. **A relation between quasi-cyclic codes and 2-D cyclic codes**
Guneri C., ÖZBUDAK F.
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- LXXXI. **Quadratic forms of codimension 2 over certain finite fields of even characteristic**
ÖZBUDAK F., SAYGI E., Saygi Z.
CRYPTOGRAPHY AND COMMUNICATIONS-DISCRETE-STRUCTURES BOOLEAN FUNCTIONS AND SEQUENCES, cilt.3, sa.4, ss.241-257, 2011 (SCI-Expanded)
- LXXXII. **Efficient multiplications in $F(5)^{5n}$ and $F(7)^{7n}$**
CENK M., ÖZBUDAK F.
JOURNAL OF COMPUTATIONAL AND APPLIED MATHEMATICS, cilt.236, sa.2, ss.177-183, 2011 (SCI-Expanded)
- LXXXIII. **Multiplication of polynomials modulo $x(n)$**
CENK M., ÖZBUDAK F.
THEORETICAL COMPUTER SCIENCE, cilt.412, sa.29, ss.3451-3462, 2011 (SCI-Expanded)
- LXXXIV. **APPROXIMATION OF BOUNDS ON MIXED-LEVEL ORTHOGONAL ARRAYS**
SEZER A. D., ÖZBUDAK F.
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- LXXXV. **A class of authentication codes with secrecy**
ÖZBUDAK E. K., ÖZBUDAK F., SAYGI Z.
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- LXXXVI. **Probabilities for absolute irreducibility of multivariate polynomials by the polytope method**
Koyuncu F., ÖZBUDAK F.
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- LXXXVII. **On Feedback Functions of Maximum Length Nonlinear Feedback Shift Registers**
ÇALIK C., Turan M. S., ÖZBUDAK F.
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