

Preliminary program for WCC'2005: Updated March 2

Sunday afternoon

Monday 7:30-

Monday 8:45-9:00: Welcome

Monday 9:00-10:00 Invited talk: Open problems related to algebraic attacks on stream ciphers

Monday 10:00-11:50

Second Generalized Hamming Weights for Extremal Self-Dual Codes

(Break)

Error and Erasure Correction of Interleaved Reed--Solomon Codes

A Welch--Berlekamp like algorithm for decoding Gabidulin codes

On codes correcting symmetric rank errors

Monday 12:10-13:40

Monday 13:40-17:00

Interpolation of the discrete logarithm in a finite field of characteristic two by Boolean functions

On Degrees of Polynomial Interpolations Related to Elliptic Curve Cryptography

Interpolation of Functions Related to the Integer Factoring Problem

(Break)

Finding good differential patterns for attacks on SHA-1

Shorter keys for code based cryptography

Dimension of the linearization equations of the Matsumoto-Imai cryptosystems

Tuesday 9:00-10:00 Invited talk: Pseudocodewords, polytopes and low complexity coding techniques

Tuesday 10:00-12:40

Constructions of Complementary Sequences for Power-Controlled OFDM Transmission

A Novel Method for Constructing Almost Perfect Polyphase Sequences

(Break)

Linear Filtering of Nonlinear Shift Register Sequences

Realization of Decimation-Hadamard Transform for Binary Generalized GMW Sequences

Reconstruction of Kronecker Sequences

Frequency/Time Hopping Sequences with Large Linear Complexities

Tuesday 12:40-14:10

Tuesday 14:10-17:20

New results on 2-weight projective cyclic codes

Registration

Registration

Anne Canteaut

Coding Theory 1

Keisuke Shiromoto

Georg Schmidt, Vladimir R. Sidorenko, Martin Bossert

Pierre Loidreau

Nina I. Pilipchuk , Ernst M. Gabidulin

Lunch

Cryptography 1

Nina Brandstaetter, Tanja Lange, Arne Winterhof

Takakazu Satoh

Clemens Adelman, Arne Winterhof

Krystian Matusiewicz, Josef Pieprzyk

Philippe Gaborit

A. Diene, J. Ding, J. E. Gower, T. J. Hodges, Z. Yin

Ralf Koetter

Sequences

Kai-Uwe Schmidt, Adolf Finger

Xiangyong Zeng, Lei Hu, Qingchong Liu

Berndt M. Gammel, Rainer Göttert

Nam Yul Yu, Guang Gong

Quanlong Wang, Qingchong Liu, Lei Hu

Yun-Pyo Hong, Hong-Yeop Song

Lunch

Coding Theory 2

Jacques Wolfmann

Time incl.
questions

01:00

0:30

0:30

0:30

0:20

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01:00

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0:20

0:30

On the weights of irreducible cyclic codes	Yves Aubry, Philippe Langevin	0:30
Sperner's theorem and unidirectional codes	Bella Bose, Torleiv Kløve	0:30
(Break)		
Geometric conditions for the extendability of ternary linear codes	Tatsuya Maruta, Kei Okamoto	0:30
Negacyclic Duadic Codes	Thomas Blackford	0:30
On semisimple algebra codes	Edgar Martinez-Moro	0:20
Wednesday 9:00-13:00	Cryptography 2 and unrelated topics	
Rate-Diversity Optimal Space-Time Code Constructions Based on the Generalized Binary Rank Criterion	A. Roger Hammons Jr.	0:20
New Constructions of Codes for DNA Computing	Olgica Milenkovic, Navin Kashyap	0:20
Reduction of conjugacy problem in braid groups, using their double Garside's structure	Samuel Maffre	0:20
Multi-Dimensional Hash Chains and Application to Micropayment Schemes	Quan Son Nguyen	0:20
(Break)		
A Chosen Ciphertext Attack on a Public Key Cryptosystem Based on Lyndon Words	Ludovic Perret	0:20
On the Affine Parts of HFE-Cryptosystems and Systems with Branches	Patrick Felke	0:20
RSA-Based Secret Handshakes	Damien Vergnaud	0:20
(Break)		
ID-Based Series-Parallel Multisignature Schemes for Multi-messages from Bilinear Maps	Lihua Wang, Eiji Okamoto, Ying Miao, Takeshi Okamoto, Hiroshi Doi	0:20
A new public-key cryptosystem based on the problem of reconstruction of p -polynomials	Cédric Faure, Pierre Loidreau	0:20
On Wagner-Magyarik cryptosystem	Françoise Levy-dit-Vehel, Ludovic Perret	0:20
Wednesday 13:00-14:30	Lunch	
Wednesday afternoon	Excursion	
Wednesday evening 19:00: Reception	Schøttstuene	
Thursday 9:00-10:00 Invited talk: Homomorphic Encryption for Secure Watermark Detection	Ton Kalker	01:00
Thursday 10:00-12:20	Discrete Mathematics 1	
Differentially Affine Maps	Gohar M. Kyureghyan	0:30
(Break)		
New Constructions of Almost Bent and Almost Perfect Nonlinear Polynomials	Lilya Budaghyan, Claude Carlet, Alexander Pott	0:30
On the Non-Existence of Crooked Functions on Finite Fields	Eimear Byrne, Gary McGuire	0:20

Classes of Plateaued Rotation Symmetric Boolean Functions under Transformation of Walsh Spectra	Alexander Maximov	0:20
Group Actions based Perfect Nonlinearity	Laurent Poinot, Sami Harari	0:20
Thursday 12:20-13:50	Lunch	
Thursday 13:50-17:10	Cryptography 3	
The Asymptotic Behavior of 2-Adic Complexity	Andrew Klapper	0:30
A New Key Assignment Scheme for Access Control in a Complete Tree Hierarchy	Alfredo De Santis, Anna Lisa Ferrara, Barbara Masucci	0:30
Threshold Secret Sharing Schemes for XOR-based Visual Cryptography	P. Tuyls, H.D.L. Hollmann, J.H. van Lint, L. Tolhuizen	0:30
(Break)		
On a Relation Between Verifiable Secret Sharing Schemes and a Class of Error-Correcting Codes	Ventzislav Nikov, Svetla Nikova	0:30
Extending Gibson's attacks on the GPT cryptosystem	Raphael Overbeck	0:20
Information-Theoretically Secure Anonymous Group Authentication with an Arbiter	Kazuyuki Kinose, Takenobu Seito, Junji Shikata, Tsutomu Matsumoto	0:20
k -Resilient ID-Based Key Distribution Schemes from Pairing --- Three Party Case	Takeshi Okamoto, Raylin Tso, Tsuyoshi Takagi, Eiji Okamoto	0:20
Thursday 19:00	Dinner	
Friday 9:00-10:00: Invited talk: : Space-Time Codes Achieving the Diversity-Multiplexing Gain Tradeoff	P. Vijay Kumar	01:00
Friday 10:00-11:50	Coding theory 3	
3-Designs from Z_4 -Goethals-like Codes and Variants of Cyclotomic Polynomials	Jyrki Lahtonen, Kalle Ranto, Roope Vehkalahti	0:30
(Break)		
Quaternary Convolutional Codes From Block Codes Over Galois Rings	Patrick Solé, Virgilio Sison	0:30
Improved Bounds On Weil Sums Over Galois Rings and Homogeneous Weights	San Ling, Ferruh Özbudak	0:30
Friday 11:50-13:20	Lunch	
Friday 13:20-16:00	Discrete Mathematics 2	
Bent Functions with 2^r Niho Exponents	Gregor Leander	0:30
Monomial Bent Functions	Gregor Leander	0:30
Spectral Interpretations of the Interlace polynomial	Constanza Riera, Matthew G. Parker	0:30
(Break)		
Inverses of Multivariate Polynomial Matrices using Discrete Convolution	Ruben Lobo, Donald Bitzer, Mladen Vouk	0:20
On reconstruction of functions on the hypercube	Anastasia Vasil'eva	0:30