

**ALGEBRAIC AND COMBINATORIAL
CODING THEORY (ACCT-2010)
PROGRAMME**

SUNDAY, September 5, 2010

Arrival Day

13:00-14:00 **Lunch** (Restaurant "People's")

17:00-19:00 **Registration** (Hotel "Zolotaya Dolina")

19:00-20:00 **Dinner** (Restaurant "People's")

MONDAY, September 6, 2010

08:15-09:00 **Breakfast** (Restaurant "Vostok-Zapad")

09:00-09:30 **Registration** (Institute of Mathematics, Conference Hall)

09:30-09:55 Alexander A. Davydov, Victor V. Zyablov, Rustam E. Kalimullin
"Subcodes of Reed-Solomon code with special properties"

10:00-10:25 Viktor T. Markov, Alexandr A. Nechaev
"Generalized BCH-theorem and linear recursive MDS-codes"

10:30-11:00 Tatsuya Maruta, Yusuke Oya
"New ternary linear codes of dimension 6"

11:00-11:30 **Coffee break**

11:30-11:55 Yusuke Oya, Tatsuya Maruta
"The nonexistence of $[265, 6, 175]_3$ and $[302, 6, 200]_3$ codes"

12:00-12:25 Hristo Kostadinov, Nikolai Manev, Hiroyoshi Morita
"On (± 1) error correctable integer codes"

13:00-14:00 **Lunch** (Restaurant "People's")

14:30-15:00 Pascale Charpin
"On permutation polynomials of the shape $G(X) + \lambda \text{Tr}(H(X))$ "

15:05-15:30 Victor A. Zinoviev, Dmitriy V. Zinoviev
"Components of Steiner systems $S(v, k, k-1)$ "

15:35-16:00 Josep Rifa, Merce Villanueva, Faina Solov'eva
"On the geometric intersection of Hamming codes"

16:05-16:30 **Coffee break**

16:30-16:55 Alexey S. Kuzmin, Alexandr A. Nechaev
"On the reconstruction of a linear recurrence of maximal period over a Galois ring by its highest coordinate sequence"

17:00-17:25 Stoyan Kapralov
"Enumeration of some Dyson sets"

17:30-17:55 Tsonka Baicheva, Svetlana Topalova
"Classification of optimal $(v, 4, 1)$ optical orthogonal codes with $v \leq 76$ "

19:00 **Welcome Reception** (Restaurant "People's")

TUESDAY, September 7, 2010

08:15-09:00 **Breakfast** (Restaurant "Vostok-Zapad")

09:30-9:55 Asen Bojilov, Arend Jan van Zanten, Stefan M. Dodunekov
"Minimal distances in generalized residue codes"

10:00-10:25 Asen Bojilov, Arend Jan van Zanten, Stefan M. Dodunekov
"Idempotent generators of generalized residue codes"

10:30-10:55 Yuri L. Borissov, Stefan M. Dodunekov, Moon Ho Lee
"On odd order jacket matrices over finite characteristic fields"

11:00-11:30 **Coffee break**

11:30-11:55 Moon Ho Lee, Xiao-Dong Zhang, Wei Song
"A novel class of element-wise-inverse jacket transform with many parameters"

12:00-12:25 Moon Ho Lee
"Jacket Matrices and their applications in coding theory"

13:00-14:00 **Lunch** (Restaurant "People's")

15:00-15:25 Quim Borges, Josep Rifa, Victor A. Zinoviev
"Lifting of completely regular codes with $\rho = 2$ "

15:30-15:55 Tuvi Etzion, Natalia Silberstein
"On perfect codes in the Johnson graph"

16:00-16:25 Sergey V. Avgustinovich, Ivan Yu. Mogilnykh
"On completely regular codes with covering radius 1 in Johnson graphs $J(2w + 1, w)$ "

16:30-17:00 **Coffee break**

17:00-17:25 Sergey V. Bezzateev, Natalia A. Shekhunova
"Binary unequal error protection codes as a subclass of generalized (L, G) -codes"

17:30-17:55 Peter Boyvalenkov, Hristina Kulina
"Computing distance distribution of orthogonal arrays"

18:00-18:25 Iliya Bouykliev, Eric Jacobsson
"Classification of binary linear codes with minimum distance 8"

19:00 **Dinner** (Restaurant "People's")

WEDNESDAY, September 8, 2010

08:15-09:00 **Breakfast** (Restaurant "Vostok-Zapad")

09:30-13:00 **Excursion**

13:00-14:00 **Lunch** (Restaurant "People's")

15:00-15:25 Valentine B. Afanassiev, Sergey A. Popov
"A new idea for graph code decoding"

15:30-15:55 Petr V. Trifonov
"On multivariate interpolation decoding of folded Reed-Solomon codes"

16:00-16:25 Antonia Wachter, Vladimir Sidorenko, Martin Bossert
"A fast linearized euclidean algorithm for decoding of Gabidulin codes"

16:30-17:00 **Coffee break**

17:00-17:25 Victor V. Zyablov, Konstantin A. Kondrashov
"Binary LDPC Woven Convolutional Codes Decoding"

17:30-17:55 Victor V. Zyablov, Pavel S. Rybin
"Majority decoding and decoding with erasure insertion of binary LDPC codes"

18:00-18:25 Alexey A. Frolov, Victor V. Zyablov
"Insertion of erasures as a method of q -ary LDPC codes decoding"

19:00 **Dinner** (Restaurant "People's")

THURSDAY, September 9, 2010

08:15-09:00 **Breakfast** (Restaurant "Vostok-Zapad")

09:30-09:55 Eugene Nickolov, Dimitrina Polimirova
"Advanced encryption methods used in modern malware activities with respect to the information security"

10:00-10:25 Chrisophe Chabot, Mattieu Legeay
"Using automorphism group for decoding"

10:30-10:55 Yahia Hassan, Vladimir Sidorenko
"Fast recursive linearized feedback shift register synthesis"

11:00-11:30 **Coffee break**

11:30-11:55 Ilya Dumer, Rafael Fourquet, Cedric Tavernier
"Cryptanalysis of block ciphers via list decoding of long Reed-Muller codes"

12:00-12:25 Alexey V. Urivskiy
"Light-weight key predistribution scheme with key renewal"

13:00-14:00 **Lunch** (Restaurant "People's")

15:00-15:25 Alexandr Zeh, Wenhui Li
"On reformulated multi-sequence problems"

15:30-15:55 Anastasia Yu. Vasil'eva
"Local spectra of eigenfunctions of binary cube"

16:00-16:25 Denis S. Krotov
"On the binary codes with parameters of triply-shortened 1-perfect codes"

16:30-17:00 **Coffee break**

17:00-17:25 Daria I. Kovalevskaya
"Metrical rigidity of some q -ary codes"

17:30-17:55 Evgenij V. Gorkunov
"Symmetries of a q -ary Hamming code"

19:30 **Banquet** (Restaurant "People's")

FRIDAY, September 10, 2010

08:15-09:00 **Breakfast** (Restaurant "Vostok-Zapad")

09:30-09:55 Ivan Landjev, Assya Rousseva
"On a class of Griesmer codes related to caps"

10:00-10:25 Stoyan Boev, Ivan Landjev
"The generalization of some constructions by Megyesi to Hjelmslev planes"

10:30-11:00 Alexander A. Davydov, Stefano Marcugini, Fernanda Pambianco
"A geometric construction of complete arcs sharing $(q+3)/2$ points with a conic (symmetric and complete arcs: bounds and constructions)"

11:00-11:30 **Coffee break**

11:30-11:55 Daniele Bartoli, Stefano Marcugini, Fernanda Pambianco
"The spectrum of linear pure quantum $[[n, n-10, 4]]$ -codes"

12:00-12:25 Vladimir N. Potapov
"On completion of latin hypercuboids of order 4"

13:00-14:00 **Lunch** (Restaurant "People's")

15:00-15:25 R. Ahlswede, V. Lebedev
"Shadow under the words-subwords relation"

15:30-15:55 Vinod Tyagi, Amita Sethi
" (b_1, b_2) -optimal byte correcting codes"

16:00-16:30 **Coffee break**

16:30-16:55 Silvia Boumova, Veselin Drensky
"Cocharacters of polynomial identities of upper triangular matrices"

17:00-17:25 Galina Bogdanova, Todor Todorov, Nikolay Noev
"Signing individual fragments of an RDF graph of unique Bulgarian bells"

19:00 **Dinner** (Restaurant "People's")

SATURDAY, September 11, 2010

Departure day