

ALGEBRAIC AND COMBINATORIAL
CODING THEORY (ACCT-XIV)
PROGRAMME

SUNDAY, September 7, 2014

Arrival Day

15:00–20:30 Registration (RUSS hotel)

20:30–22:00 **Dinner** (RUSS hotel)

MONDAY, September 8, 2014

08:30–09:25 **Breakfast** (RUSS hotel)

09:25–09:30 **Conference opening**

09:30–10:00 Boev S., Landjev I.

“Homogeneous Arcs in Projective Hjelmslev Spaces”

10:00–10:30 Bouyuklieva S., Yankov N.

“Some binary self-dual codes having an automorphism of order 15”

10:30–11:00 Daskalov R., Metodieva E. *“Five new (n, r) -arcs in $PG(2, 29)$ ”*

11:00–11:30 **Coffee break**

11:30–12:00 Vasil’eva A.

“Are q -ary Perfect Codes reconstructed by the Vertices of Largest Level?”

12:00–12:30 Bassalygo L., Zinoviev V.

“On complete permutation polynomials”

12:30–13:00 Bartoli D., Davydov A., Faina G., Kreshchuk A., Marcugini S., Pambianco F.

“Conjectural upper bounds on the smallest size of a complete arc in $PG(2; q)$ based on an analysis of step-by-step greedy algorithms”

13:00–13:30 Bartoli D., Davydov A., Faina G., Kreshchuk A., Marcugini S., Pambianco F., Tkachenko I.

“Upper bounds on the smallest sizes of a complete arc in $PG(2; q)$ based on computer search”

13:30–14:30 **Lunch** (RUSS hotel)

15:00–15:30 Kreshchuk A., Zyablov V., Ryabinkin E.

“A new iterative decoder for product codes”

15:30–16:00 Baicheva T., Topalova S.

“New perfect difference families”

16:00–16:30 **Coffee break**

16:30–17:00 Landjev I., Rousseva A., Storme L.

“On the Extendability of Quasidivisible Optimal Arcs”

17:00–17:30 Zinoviev D., Zinoviev V. *“On the Preparata-like codes”*

17:30–18:00 Shishkin A., Gabidulin E., Pilipchuk N.

“On cardinality of network subspace codes”

19:00–20:00 **Dinner**

TUESDAY, September 9, 2014

08:30–09:30 **Breakfast** (RUSS hotel)

09:30–10:00 Nielsen J. S. R.

“Fast Kötter–Nielsen–Høholdt Interpolation in the Guruswami-Sudan Algorithm”

10:00–10:30 Nielsen J. S. R.

“Power Decoding Reed-Solomon Codes up to the Johnson Radius”

10:30–11:00 Sysoev I.

“Euclidian algorithm for linearized polynomials”

11:00–11:30 **Coffee break**

11:30–12:00 Trushina O.

“Towards to Anonymity in Physical-Layer Network Coding”

12:00–12:30 Urvskiy A.

“Broadcast Encryption Scheme Based on Binary Cubes”

12:30–13:00 Loidreau P.

“On cellular code and their cryptographic applications”

13:00–13:30 Borges J., Rifa J., Zinoviev V. *“On nested completely regular codes and distance regular graphs”*

13:30–14:30 **Lunch** (RUSS hotel)

15:00–15:30 Dumer I.

“Nested polarized codes: general design”

15:30–16:00 Dumer I.

“Nested polarized codes: decoding and node selection”

16:00–16:30 **Coffee break**

16:30–17:00 Bartoli D., Faina G., Marcugini S., Pambianco F., Bierbrauer J.

“A family of semifields of order 729”

17:00–17:30 Bartoli D., Giulietti M., Marcugini S., Pambianco F., Bierbrauer J.

“A projection construction for semifields and APN functions in characteristic 2”

18:00–21:30 **Excursion to Kaliningrad**

21:30–22:30 **Dinner**

WEDNESDAY, September 10, 2014

08:30–09:30 **Breakfast** (RUSS hotel)

09:30–10:00 D'yachkov A., Vorobyev I., Polyanskii N., Shchukin V.
“On the capacity for almost disjunctive codes”

10:00–10:30 D'yachkov A., Vorobyev I., Polyanskii N., Shchukin V.
“On the error exponent for almost disjunctive codes”

10:30–11:00 Deppe C., Lebedev V.
“Multiaccess problem with two active users”

11:00–11:30 **Coffee break**

11:30–12:00 Gorkunov E., Sotnikova E.
“On Linear Rigidity of Codes”

12:00–12:30 Kageyama Y., Maruta T.
“On the construction of optimal codes over \mathbb{F}_q ”

12:30–13:10 Bartoli D., Marcugini S., Kaneta H., Pambianco F.
“Low density quasi-perfect linear codes, small complete caps and symmetric surfaces” (joint talk for the papers “ - A probabilistic construction of low density quasi-perfect linear codes” and “ The First and Second Most Symmetric Non-singular Cubic Surfaces”)

13:30–14:30 **Lunch** (RUSS hotel)

15:00–18:30 **Excursion**

19:00–20:00 **Dinner**

THURSDAY, September 11, 2014

08:30–09:30 **Breakfast** (RUSS hotel)

09:30–10:00 Zhilin I., Rybin P., Ivanov F., Zyablov V.
“On the Decoding of Tail-Biting UM-LDPC Codes”

10:00–10:30 Frolov A.
“On the Hamming-Like Upper Bound on the Minimum Distance of LDPC Codes”

10:30–11:00 Rybin P.
“On the Erasure-Correcting Capabilities of Irregular LDPC Codes”

11:00–11:30 **Coffee break**

11:30–12:00 Okazaki T., Maruta T.
“New 4-dimensional linear codes over \mathbb{F}_9 ”

12:00–12:30 Kumegawa K., Maruta T.
“Nonexistence of some Griesmer codes of dimension 4 over \mathbb{F}_q ”

12:30–13:00 Mogilnykh I., Solov’eva F.
“Linear coordinates and symmetry groups of perfect Mollard codes”

13:00–13:30 Mogilnykh I., Solov’eva F.
“Existence of transitive nonpropelinear perfect codes”

13:30–14:30 **Lunch** (RUSS hotel)

15:00–15:30 Bouyukliev I., Dzhumaliev-Stoeva M., Monev V.
“On the Classification of the Binary Self-Dual Codes of Length 40”

15:30–16:00 Tamm U.
“Lattice Packings by Clusters of Cubes in Coding Theory”

16:00–16:30 **Coffee break**

16:30–17:00 Beelen P., Ghorpade S. R., Hasan S. U.
“Linear Codes associated to Determinantal Varieties”

17:00–17:30 Alekseenko E.
“A method of finding explicit equation for optimal curve of genus 4”

17:30–18:00 Borissov Y., Lee M. H.
“On Hadamard Modulo Prime p Matrices of Size at most $2p + 1$ ”

18:00–18:30 Lee M. H., Hai H., Zhang X.-D.
“The Fast Block Circulant Jacket Transform”

19:00–22:00 **Conference Dinner**

FRIDAY, September 12, 2014

08:30–09:30 **Breakfast** (RUSS hotel)

09:30–10:00 Kostadinov H., Manev N.

“Application of Error Control codes in Steganography”

10:00–10:30 Muelich S., Puchinger S., Bossert M., Hiller M., Sigl G.

“Error Correction for Physical Unclonable Functions Using Generalized Concatenated Codes”

10:30–11:00 Sergeev M.

“Preserving anonymity of data transfer in open wireless networks using network coding”

11:00–11:30 **Coffee break**

11:30–12:00 Baytchev V., Boyvalenkov P., Delchev K.

“Packing of spherical caps of different radii on S^2 ”

12:00–12:30 Boyvalenkov P., Dragnev P., Hardin D., Saff E., Stoyanova M.

“On the Riesz energy of spherical designs”

12:30–13:00 Kolev E.

“Covering of F_3^n with spheres of maximal radius”

13:00–13:30 Afanassiev V., Davydov A.

“Incremental calculation of decoding failure probability for iterative decoding of Reed-Solomon product code”

13:30–14:30 **Lunch** (RUSS hotel)

15:00–15:30 Ivanov F., Zyablov V.

“LDPC codes based on Steiner quadruple systems and permutation matrices”

15:30–16:00 Bezzateev S., Shekhunova N.

“New Class of Quasi-cyclic Goppa Codes”

16:00–16:30 **Coffee break**

16:30–17:00 Frolov A.

“Upper Bounds on the Minimum Distance of Quasi-Cyclic LDPC codes”

17:00–17:30 Gritsenko V., Maevskiy A.,

“On construction of optimal codes in term rank metric via $p(x)$ -circulants”

17:30–18:00 Kabatiansky G., Tavernier C.

“Double Sparse Compressed Sensing Problem”

19:00–20:00 **Dinner**

SATURDAY, September 13, 2014

Departure day

08:00–09:30 **Breakfast** (RUSS hotel)