Designs, Codes, Graphs and Related Areas

This is a RIMS joint research which will take place as a part of the joint research service of Research Institute for Mathematical Sciences (RIMS) in the 2013 fiscal year.

Dates: Monday 1st July to Wednesday 3rd July 2013.
Venue: RIMS, Kyoto University, Room 111
Kyoto 606-8502 Japan[1]

Program

1st July

13:00 − 13:50 Oleg Musin (Univ. of Texas at Brownsville and Yaroslavl State University)
Optimal packings of congruent circles on spheres and flat tori

14:00 − 14:50 Alexey Glazyrin (Univ. of Texas at Brownsville and Yaroslavl State University)
The price of SDP relaxations for spherical codes

15 : 10 − 16 : 00 Keisuke Shiromoto (Kumamoto University)
On critical exponents of matroids and linear codes

16 : 10 − 17 : 00 Michiaki Onodera (Kyushu University)
Evolution equations for quadrature identities

2nd July

9 : 00 − 9 : 50 Ryoh Fuji-Hara (University of Tsukuba)
Descendent sets and codes

10 : 00 − 10 : 50 Yuichiro Fujiwara (California Institute of Technology)
Codes and designs for quantum error correction

11 : 00 − 11 : 50 Ken-ichi Kawarabayashi (National Institute of Informatics)
Combinatorial coloring of 3-colorable graphs

[1]RIMS is easily accessible by a number of public transportation services provided conveniently throughout Kyoto City. Details can be found in http://www.kurims.kyoto-u.ac.jp/en/access-01.html

14 : 00 − 14 : 50 Yuan Xu (University of Oregon)
Cubature rules and orthogonal polynomial

15 : 00 − 15 : 50 Bruce Reed (McGill University)
The structure of a typical H-free graph

16 : 00 − 16 : 50 Satoshi Aoki (Kagoshima University)
Markov chain Monte Carlo methods for regular two-level fractional factorial designs and cut ideals

3rd July

9 : 00 − 9 : 50 Alexander Barg (University of Maryland)
On the theory of association schemes

10 : 00 − 10 : 50 Hiroto Sekido (Kyoto University)
An approximate approach to E-optimal designs for weighted polynomial regression by using Tchebycheff systems and orthogonal polynomials

11 : 00 − 11 : 50 Mikio Kano (Ibaraki University)
Discrete geometry on 3 colored point sets in the plane

14 : 00 − 14 : 50 Ferenc Szöllősi (Tohoku University)
Equiangular lines with angle 1/5 and Seidel matrices with 3 distinct eigenvalues

15 : 00 − 15 : 50 Akihiro Higashitani (Osaka University)
Ehrhart polynomials of polytopes and orthogonal polynomial systems

16 : 00 − 16 : 50 Takayuki Okuda (Tohoku University)
Relation among designs on compact homogeneous spaces

Organizers:
Hiroshi Nozaki (Aichi University of Education)
Jun Fujisawa (Keio University)
Masanori Sawa (Nagoya University)
Masatake Hirao (Tokyo Woman's Christian University)