

WORKSHOP ON CONVEX POLYTOPES

凸多面体論の最近の潮流を探る

<http://www.rkmath.rikkyo.ac.jp/~ohsugi/CREST/convexpolytopes.htm>

July 23 (Monday) -- July 27 (Friday) 2012

RIMS Room #420, Kyoto University, Kyoto, Japan

<http://www.kurims.kyoto-u.ac.jp/en/index.html>

PROGRAM

Monday 23 July

- 9:30–10:20 Gil Kalai (Hebrew University)
Advances and challenges in the combinatorial study of convex polytopes and related structures
- 10:30–11:20 Eran Nevo (Ben-Gurion University of the Negev)
On the generalized lower bound conjecture
- 11:30–12:20 Christos Athanasiadis (University of Athens)
Some recent results on subdivisions and local h -vectors
- 14:00–14:50 Benjamin Braun (University of Kentucky)
Euler--Mahonian statistics via polyhedral geometry
- 15:00–15:50 Akimichi Takemura (University of Tokyo)
Cones of elementary imsets and supermodular functions: a review and some new results
- 16:00–16:50 Nobuki Takayama (Kobe University)
Umbrellas of sets of points and divergent hypergeometric series

Tuesday 24 July

- 9:30–10:20 Carl Lee (University of Kentucky)
The cd -index, CD -vector and h -vector of convex polytopes
- 10:30–11:20 Margaret Bayer (University of Kansas)
Generalizations of cyclic polytopes
- 11:30–12:20 Fu Liu (University of California, Davis)
Perturbation of transportation polytopes
- 14:00–14:50 Nan Li (MIT)
Combinatorial aspects of the hypersimplex
- 15:00–15:50 Christian Haase (Goethe-Universität)
Some facets of marginal polytopes
- 16:00–16:50 Sinai Robins (Nanyang Technological University)
Tiling euclidean space by translations of a polytope with multiplicity

Wednesday 25 July

- 9:30–10:20 Richard Stanley (MIT)
The visibility arrangement and line shelling arrangement of a convex polytope
- 10:40–11:00 Yvonne Kemper (University of California, Davis)
Flows on simplicial complexes
- 11:10–11:30 Jing Xi (University of Kentucky)
The characteristic imset polytope for diagnosis models
- 11:40–12:00 Laura Escobar (Cornell University)
Star¹-convex functions on tropical linear spaces of complete graphs

Thursday 26 July

- 9:30–10:20 Francisco Santos (Universidad de Cantabria)
Unimodular triangulations of dilated 3-polytopes
- 10:30–11:20 Alexander M Kasprzyk (Imperial College London)
Fano polytopes, mirror symmetry, and mutations
- 11:30–12:20 Benjamin Nill (Case Western Reserve University)
Ramifications of the degree of lattice polytopes
- 14:00–14:50 Matthias Köppe (University of California, Davis)
Intermediate sums on polyhedra: Ehrhart theory and an application in mixed integer optimization
- 15:00–15:50 Greta Panova (University of California, Los Angeles)
Counting with polytopes --- tableaux enumeration
- 16:00–16:50 Hidefumi Ohsugi (Rikkyo University)
Centrally symmetric configurations of integer matrices

Friday 27 July

- 9:30–10:20 Günter M. Ziegler (Freie Universität Berlin)
On projectively unique polytopes
- 10:30–11:20 Sam Payne (Yale University)
Totally mixed faces of Minkowski sums
- 11:30–12:20 Christian Stump (University of Hannover)
A new approach to generalized associahedra using brick polytopes

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