Discrete geometry and topology
in low dimensions

1 – 6 April, 2007

MONDAY, 2 APRIL

7:00-9.00	Breakfast, Donald Cameron Hall
9:00-9:10	Opening remarks
9.15-10.00	Stephen Smale, Finding manifolds with noisy data
10:00-10.30	Coffee break, 2nd floor lounge, Corbett Hall
10.30-11.15	Patrice Koehl, Geometry of Life
11.30-13:30	Lunch, Donald Cameron Hall
13:00-14:00	Guided tour of The Banff Centre campus (meet in 2nd floor lounge, Corbett Hall)
14:00-14:45	Patrizio Frosini, Shape comparison with k-dimensional size functions
15:00-15:30	Victor Alexandrov, Minkowski-type & A.D Alexandrov theorems for hedgehogs
15:30-16:00	Coffee break, 2nd floor lounge, Corbett Hall
16:00-16:30	Vin de Silva, Persistent cohomology
16:40-17:25	Karoly Bezdek, From disk-polygons to ball-polyhedra
17:30-19:30	Dinner, Donald Cameron Hall

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Tuesday, April 3

7:00-9:00 Breakfast, Donald Cameron Hall

9:00-9:45 Bob Connelly, What stress can do for you

9:45-10:15 Coffee break, 2nd floor lounge, Corbett Hall

10:15-10:45 Andre Lieutier, The λ−medial axis

10:55-11:25 Bob Erdahl, Voronoi's hypothesis on perfect forms

11:35-12:05 Andrei Ordine, Voronoi's conjecture on parallelotopes

12:05-12:15 **GROUP PHOTO**, Steps of main entrance to Corbett Hall

11:15-14:00 Lunch, Donald Cameron Hall

14:00-14:45 Christine Bachoc, Semi-definite programming bounds for spherical codes

15:00-15:30 Oleg Musin, Multivariety positive definite functions on spheres

15:30-16:00 Coffee break, 2nd floor lounge, Corbett Hall

16:00-16:30 Kostya Rybnikov, On the convexity of unbounded surfaces in hyperbolic space

16:45-17:15 Yuri Mileyko, L_p-stability of total persistence

17:30-19:30 Dinner, Donald Cameron Hall

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Wednesday, April 4

7:00-9:00 Breakfast, Donald Cameron Hall

9:00-9:45 Frank Morgan, Partition problems

9:45-10:15 Coffee break, 2nd floor lounge, Corbett Hall

10:15-10:45 Iskander Aliev, On solutions of polynomial equations in roots of unity

11:00-11:30 Andras Bezdek, On geometric iterations leading to dense points sets

11:45-12:15 Dimitri Morozov, Inferring local homology from sampled stratified spaces

12:15-14:00 Lunch, Donald Cameron Hall

14:00-14:45 Frederik Chazal, A sampling theory for compact sets in Euclidean space

15:00-15:30 Maria Belk, Realizing graphs

15:30-16:00 Coffee break, 2nd floor lounge, Corbett Hall

16:00-16:30 Dominique Attali, Inclusion-exclusion formulas from independent complexes

16:45-17:15 Frank Vallentin, Semidefinite programming bounds for points in spheres

17:30-19:30 Dinner, Donald Cameron Hall

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Thursday, April 5

7:00-9:00   Breakfast, Donald Cameron Hall

9:00-9:45   Jean-Marc Schlenker, On the rigidity of weakly convex polyhedra

9:45-10:15   Coffee break, 2nd floor lounge, Corbett Hall

10:15-10:45   Balasz Csikos, Extensions of the Kneser-Poulsen conjecture

11:00-11:30   Abdo Alfakih, Graph realization in Euclidean space by semi-definite programming

11:45-12:15   Achill Schuermann, Perfect lattices and periodic sets

12:15-14:00   Lunch, Donald Cameron Hall

14:00-14:45   Henry Cohn, Constructing a desired ground state

15:00-15:30   David Cohen-Steiner, Stability of the boundary measure

15:30-16:00   Coffee break, 2nd floor lounge, Corbett Hall

16:00-16:30   Csaba Toth, Optimal cuttings for disjoint disks in 3-space

16:45-17:15   Ileana Streinu, Flexibility

17:30-19:30   Dinner, Donald Cameron Hall