

“Workshop: High dimensional phenomena: geometric and probabilistic aspects”

March 11 - 15, 2024

organized by

Elisabeth M. Werner, Ronen Eldan, Assaf Naor

• Monday, March 11

08:30 - 09:25	<i>Arrival and Registration</i>
09:25 - 09:30	<i>Welcome by HIM Director Christoph Thiele</i>
09:30 - 10:20	Lisa Sauermann <i>On the extension complexity of random polytopes</i>
10:20 - 10:45	<i>Coffee break</i>
10:45 - 11:35	Andrea Colesanti <i>Variational functionals in the Gauss space</i>
11:45 - 12:15	Julian Haddad <i>Fiber symmetrization in the space of matrices</i>
12:15 - 15:00	<i>Lunch break</i>
15:00 - 15:50	Monika Ludwig <i>Recent advances in valuations on function spaces</i>
15:50 - 16:15	<i>Coffee break</i>
16:15 - 16:45	Maria Alfonseca <i>On uniqueness questions of Croft, Falconer and Guy</i>
afterwards	<i>Get-Together</i>

• Tuesday, March 12

09:30 - 10:20	Galyna Lifshyts <i>Geometric functional inequalities, old and new</i>
10:20 - 10:45	<i>Group Photo and Coffee break</i>
10:45 - 11:15	Florian Besau <i>Floating bodies and duality in spaces of constant curvature</i>

11:20 - 11:50	Jonas Knoerr <i>Complex Monge-Ampère operators and functional Hermitian intrinsic volumes</i>
11:55-12:25	Hiroshi Tsuji <i>The functional volume product under heat flow</i>
12:30 - 15:00	<i>Lunch break</i>
15:00 - 15:50	Mark Rudelson <i>Minimal rank of submatrices of a random rectangular matrix</i>
15:50 - 16:15	<i>Coffee break</i>
16:15 - 16:45	Orli Herscovici <i>Gaussian B-inequality: stability and equality cases</i>

• **Wednesday, March 13**

09:30 - 10:20	Daniel Hug <i>Boolean models in hyperbolic space</i>
10:20 - 10:45	<i>Coffee break</i>
10:45 - 11:35	Vlad Yaskin <i>Some problems about centroids of convex bodies</i>
11:45 - 12:15	Dylan Langharst <i>Higher-order affine isoperimetric inequalities</i>
12:15 - 15:00	<i>Lunch break</i>
15:00 - 15:50	Assaf Naor <i>Quantitative Wasserstein rounding</i>
15:50 - 16:15	<i>Coffee break</i>
16:15 - 16:45	Dima Faifman <i>Around the Nash problem for smooth valuations</i>

• **Thursday, March 14**

09:30 - 10:20	Santosh Vempala <i>Beyond Moments: Robust certificates for affine transformations</i>
10:20 - 10:45	<i>Coffee break</i>
10:45 - 11:15	Eli Putterman <i>Affine isoperimetry, affine Sobolev inequalities, and random polytopes</i>
11:20 - 11:50	Tara Trauthwein <i>CLTs for Poisson functionals: the Malliavin-Stein Approach</i>
11:55 - 12:25	Leo Brauner <i>Lefschetz operators on Minkowski valuations</i>
12:25 - 15:00	<i>Lunch break</i>

15:00 - 15:50	Matthieu Fradelizi <i>Entropy, isotropic constant and Mahler's conjecture</i>
15:50 - 16:15	<i>Coffee break</i>
16:15 - 16:45	Rotem Assouline <i>Brunn-Minkowski inequalities for sprays on surfaces</i>

• **Friday, March 15**

09:30 - 10:20	Alexander Koldobsky <i>Comparison problems for the Radon transform</i>
10:20 - 10:45	<i>Coffee break</i>
10:45 - 11:35	Andreas Bernig <i>Hard Lefschetz theorem and Hodge-Riemann relations for convex valuations</i>
11:45 - 12:15	Maud Szusterman <i>Tuning Banaszczyk's transform with respect to the Gaussian measure</i>