

January – April 2021



Hausdorff Trimester Program

The Interplay between High-Dimensional Geometry and Probability

Organizers: Ronen Eldan, Assaf Naor, Matthias Reitzner, Christoph Thäle, Elisabeth M. Werner

A central theme of current mathematical research exhibits a merger of ideas and techniques from geometry, probability and analysis, with emphasis on a high dimensional setting. The interplay between these areas addresses geometric and probabilistic properties of finite dimensional objects, studying their characteristic behavior when the dimension, or a number of other relevant free parameters, grows to infinity. Such high-dimensional systems appear naturally and play an essential role in mathematics and applied sciences. It is from the shared need to better understand similar phenomena that many breakthrough results have occurred in the last decade.

The goal of this trimester program is to bring together senior and junior researchers in these areas for mutual exchange of ideas and methods, to intensify the already existing ties and to stimulate substantial progress at the crossroads of these disciplines.

- **Winter School** on the Interplay between High-Dimensional Geometry and Probability (*January 11-15*)
- **Workshop:** High dimensional spatial random systems (*February 22-26*)
- **Workshop:** High dimensional measures: geometric and probabilistic aspects (*March 22-26*)

Those planning to participate include:

Keith Ball
Imre Bárány
Pierre Calka
Nina Gantert
Apostolos Giannopoulos
Olivier Guédon

Daniel Hug
Zakhar Kabluchko
Alexander Koldobsky
Galyna Livshyts
Alexander Litvak
Monika Ludwig

Vitali Milman
Ilya Molchanov
Grigoris Paouris
Giovanni Peccati
Kavita Ramanan
Mark Rudelson

Dmitry Ryabogin
Rolf Schneider
Franz Schuster
Alina Stancu
Santosh Vempala
Gaoyong Zhang



Call for participation: The Hausdorff Research Institute offers visiting positions for the whole period of the trimester program (for senior scientists, postdocs and PhD students). The deadline for applications is **June 30, 2020**. Please send applications (including CV and, for postdocs and PhD students, a letter of recommendation) using our online application form at <https://www.him.uni-bonn.de/interplay-high-dimensional-geometry-probability-application/>. In addition numerous fellowships for shorter periods are available.