

Abstract

Oberwolfach Workshop:

Convex Geometry and its Applications

Dates:

15 Dec - 20 Dec 2024 (Code: 2451)

Organizers:

Shiri Artstein-Avidan, Tel Aviv

Daniel Hug, Karlsruhe

Elisabeth Werner, Cleveland

The geometry of convex domains in Euclidean space plays a central role in several branches of mathematics: functional and harmonic analysis, the theory of PDEs, linear programming and, increasingly, in the study of algorithms in computer science. Convex Geometry has experienced a series of striking developments in the past few years: for example, the new tools from stochastic localization, the huge progress around the slicing problem, the measure transportation perspective on old problems, progress on conjectured geometric and functional inequalities and new applications of methods and results to a wide range of fields, including random matrices and statistical learning. The purpose of this meeting is to bring together researchers from the analytic, geometric and probabilistic groups who have contributed to the latest exciting results, to exchange ideas and pave the path for future developments. The meeting will continue a tradition of more than 50 years of Oberwolfach meetings with Convex Geometry in the title, at the same time emphasizing the new directions and developments, and new connections to other mathematical fields.