Mark Rudelson (University of Missouri, USA)

Title: Asymptotic geometry of non-symmetric convex bodies

Abstract: The talk will discuss the recent progress in study of non-symmetric convex bodies. The theory of symmetric convex bodies is a very rich subject containing many deep theorems. This is due to the fact that such bodies may be considered as unit balls of finite-dimensional Banach spaces. However, the most powerful technical tools, such as K-convexity, are not available without the symmetry assumption. During the last few years several new methods applicable to general convex bodies were developed. These methods allowed to obtain fundamental results of Geometric Functional Analysis like General Dvoretzky Theorem, Quotient Subspace Theorem etc. for convex bodies, which are not necessary symmetric. The talk will survey this new approach as well as the new phenomena, which cannot be observed in the symmetric setting.