



THE WEIZMANN INSTITUTE OF SCIENCE  
FACULTY OF MATHEMATICS AND COMPUTER SCIENCE  
Geometric Functional Analysis and Probability Seminar

Room 155 ,Ziskind Building  
on Thursday, Mar 14, 2019  
at 13:30

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On  $k$ -maxima of log-concave vectors

Abstract:

We establish two-sided bounds for expectations of order statistics ( $k$ -th maxima) of moduli of coordinates of centred log-concave random vectors with uncorrelated coordinates. Our bounds are exact up to multiplicative universal constants in the unconditional case for all  $k$  and in the isotropic case for  $k < c n^{5/6}$ . We also derive two-sided estimates for expectations of sums of  $k$  largest moduli of coordinates for some classes of random vectors. The talk will be based on the joint work with Rafal Latała.