

Resilience of cube slicing in ℓ_p

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Abstract

We shall discuss the state of the art on the problem of identifying the volume maximizing and minimizing hyperplane sections of p -balls in \mathbb{R}^p . After explaining a reduction to a sharp probabilistic estimate on moments of rotationally invariant random vectors, we will present a recent work with P. Nayar (Warsaw) and T. Tkocz (CMU) identifying the volume maximizing section for p greater than a universal constant.