

Entropy ideas in high-dimensional convex geometry  
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Our primary goal is to describe a strong quantitative form of the Shannon-McMillan-Breiman theorem for log-concave probability measures on linear spaces, even in the absence of stationarity. The main technical result is a concentration of measure inequality for the “information content” of certain random vectors. We will also discuss other related work. For instance, by combining this concentration result with ideas from information theory and convex geometry, we obtain a reverse entropy power inequality for convex measures that generalizes the reverse Brunn-Minkowski inequality of V. Milman. This is joint work with Sergey Bobkov (Minnesota).