

Study of median of means estimation

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The median-of-means estimation is a useful mean estimation tool for data with outliers. For example, when estimating the average income in a certain region, the most common way is to sample some people randomly in this region and then take the sample average of their salaries. However, this method can be easily affected by someone with ultra-high income. Instead, median-of-means estimation provides a more robust statistical tool. We are going to study the basic construction of median-of-means estimation and its theoretical properties such as asymptotic variance and asymptotic normality.