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Quantile Mean : Statistical Inferences and Applications

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# 分位數平均:統計推論與應用

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常用的分位數平均是第  $\alpha$  及  $1-\alpha$  這兩個分位數所取的平均數，此一平均數具有穩健性的特質。我們把此分位數平均擴展到由相同覆蓋機率但長度最短的兩個分位數來取的平均數，討論此一新的分位數平均，我們考慮了有母數及無母數兩種方法並做了分析，最後我們也把此一分位數平均擴展到一般的 L-估計上。

# Quantile Mean : Statistical Inferences and Applications

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The quantile mean being the average of a pair of symmetric type quantiles,  $F^{-1}(\alpha)$  and  $F^{-1}(1-\alpha)$ , is a robust type location parameter playing an alternative to the population mean. We extend this quantile mean to a pair of quantiles where this corresponding quantile interval is the one with smallest width among all choices of  $1-2\alpha$  quantile intervals. Parametric statistical inferences and nonparametric estimation techniques are all addressed. Moreover, an extension of the quantile mean to a new general L-estimation has also been provided.

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