

# Pitman Closeness of Order Statistics to Population Quantiles

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## Abstract

In this paper, Pitman closeness of sample order statistics to population quantiles of a location-scale family of distributions is discussed. Explicit expressions are derived for some specific families such as uniform, exponential and power function. Numerical results are then presented for these families for sample sizes  $n = 10, 15$ , and for the choices of  $p = 0.10, 0.25, 0.75, 0.90$ . The Pitman-closest order statistic is also determined in these cases and presented.