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## LIMIT THEOREMS FOR ARRAYS OF MAXIMAL ORDER STATISTICS

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Abstract: Let  $\{X, X_{nj}, 1 \leq j \leq m_n, n \geq 1\}$  be independent and identically distributed random variables with the Pareto distribution. Let  $X_{n(k)}$  be the k-th largest order statistic from the n-th row of our array. This paper establishes unusual limit theorems involving weighted sums for the sequence  $\{X_{n(k)}, n \geq 1\}$ .

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**Key words and phrases:** Almost sure convergence; weak law of large numbers; generalized law of the iterated logarithm.

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