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## Probability Plots and Order Statistics of the Standard Extreme Value Distribution

PirouziFard, MirNabi; Holmquist, Björn

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LUND UNIVERSITY

PO Box 117  
221 00 Lund  
+46 46-222 00 00

**Probability plots and order statistics of the  
standard extreme value distribution**

**Mir Nabi Pirouzi Fard**

**2008:4**



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# DEPARTMENT OF STATISTICS

S-220 07 LUND  
SWEDEN

# **Probability plots and order statistics of the standard extreme value distribution**

BY MIR NABI PIROUZI FARD

*Department of Statistics, Lund University, Box 743, S-220 07*

*Lund, Sweden*

mirnabi.pirouzifard@stat.lu.se

## **SUMMARY**

A comparison between the ordinary least-squares estimator and the weighted least-squares estimator when the data set arises from the standard extreme value distribution is provided. Probability plot of the extreme value distribution is applied. A goodness-of-fit test of the standard extreme value distribution is introduced. The percentage points of the test statistic are investigated. The results of power study for the test statistic under various alternatives shows that the proposed test statistic serves as well as the competitions in most situations.

*Some key words:* mean and variance-covariance of order statistics; probability plot; standard extreme value distribution; weighted least-squares estimator.