Multivariate Nonparametric Methods with R: An approach based on spatial signs and ranks (Lecture Notes in Statistics)

Hannu Oja
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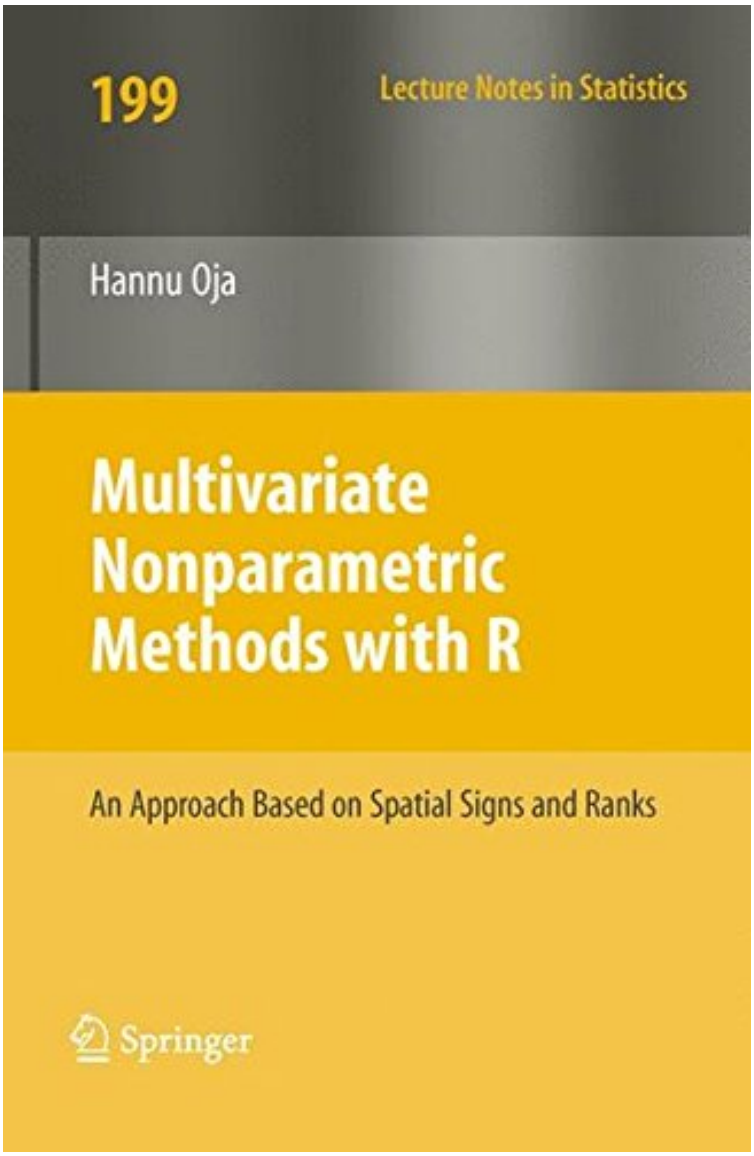

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Hannu Oja : Multivariate Nonparametric Methods with R: An approach based on spatial signs and ranks (Lecture Notes in Statistics) before purchasing it in order to gage whether or not it would be worth my time, and all praised Multivariate Nonparametric Methods with R: An approach based on spatial signs and ranks (Lecture Notes in

Statistics):

This book offers a new, fairly efficient, and robust alternative to analyzing multivariate data. The analysis of data based on multivariate spatial signs and ranks proceeds very much as does a traditional multivariate analysis relying on the assumption of multivariate normality; the regular L2 norm is just replaced by different L1 norms, observation vectors are replaced by spatial signs and ranks, and so on. A unified methodology starting with the simple one-sample multivariate location problem and proceeding to the general multivariate multiple linear regression case is presented. Companion estimates and tests for scatter matrices are considered as well. The R package MNM is available for computation of the procedures. This monograph provides an up-to-date overview of the theory of multivariate nonparametric methods based on spatial signs and ranks. The classical book by Puri and Sen (1971) uses marginal signs and ranks and different type of L1 norm. The book may serve as a textbook and a general reference for the latest developments in the area. Readers are assumed to have a good knowledge of basic statistical theory as well as matrix theory.