Directional Statistics
Kanti V. Mardia, Peter E. Jupp

DESCRIPTION

Presents new and up-dated material on both the underlying theory and the practical methodology of directional statistics, helping the reader to utilise and develop the techniques appropriate to their work.

The book is divided into three parts. The first part concentrates on statistics on the circle. Topics covered include tests of uniformity, tests of good-of-fit, inference on von Mises distributions and non-parametric methods. The second part considers statistics on spheres of arbitrary dimension, and includes a detailed account of inference on the main distributions on spheres. Recent material on correlation, regression time series, robust techniques, bootstrap methods, density estimation and curve fitting is presented. The third part considers statistics on more general sample spaces, in particular rotation groups, Stiefel manifolds, Grassmann manifolds and complex projective spaces. Shape analysis is considered from the perspective of directional statistics.

Written by leading authors in the field, this text will be invaluable not only to researchers in probability and statistics interested in the latest developments in directional statistics, but also to practitioners and researchers in many scientific fields, including astronomy, biology, computer vision, earth sciences and image analysis.
ABOUT THE AUTHOR

Kantil V. Mardia is a statistician specializing in directional statistics, multivariate analysis, geostatistics, statistical bioinformatics and statistical shape analysis. He was born in Sirohi, Rajasthan, India in a Jain family and now resides and works in Leeds.

Peter E. Jupp is the author of *Directional Statistics*, published by Wiley.

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