

1. Record Nr.	UNINA9910825819703321
Autore	Jammalamadaka S. Rao
Titolo	Topics in circular statistics / / S. Rao Jammalamadaka, A. SenGupta
Pubbl/distr/stampa	River Edge, N.J., : World Scientific, c2001
ISBN	1-281-93801-7 9786611938017 981-277-926-4
Edizione	[1st ed.]
Descrizione fisica	1 online resource (336 p.)
Collana	Series on multivariate analysis ; ; 5
Altri autori (Persone)	SenguptaAmbar <1963->
Disciplina	519.5
Soggetti	Circular data Mathematical statistics
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Description based upon print version of record.
Nota di bibliografia	Includes bibliographical references (p. [295]-309) and indexes.
Nota di contenuto	Contents ; Preface ; 1 Introduction ; 1.1 Introduction ; 1.2 Applications and Background ; 1.3 Descriptive Statistics ; 2 Circular Probability Distributions ; 2.1 Introduction ; 2.2 Circular Distributions ; 2.3 Bivariate Circular Distributions 2.4 Generation of Circular Random Variables 2.5 Appendix: Curved Exponential Families and CND ; 3 Some Sampling Distributions ; 3.1 Introduction ; 3.2 Generalized Pearson's Random Walk Problem ; 3.3 Sampling Distributions for CN Distribution ; 3.4 Some Large Sample Results 3.5 Two or More Samples ; 3.6 Approximate Distributions for Large K ; 4 Estimation of Parameters ; 4.1 Introduction ; 4.2 CN Distribution ; 4.3 CN Mixtures ; 4.4 ML Estimation for the WC Distribution ; 4.5 Circular Beta Distribution ; 4.6 WS Family ; 4.7 Confidence Intervals 4.8 Appendix: Proofs ; 5 Tests for Mean Direction and

Concentration	; 5.1 Introduction
; 5.2 Single Population	; 5.3 Two or More Populations
; 6 Tests for Uniformity	; 6.1 Introduction
; 6.2 Uniformity against WS Alternatives	;
6.3 Uniformity versus WSM Alternatives	
6.4 LMP Invariant Test for Unknown u	6.5
Appendix: Proofs	; 7 Nonparametric Testing
Procedures	; 7.1 Introduction
7.2 One-Sample Problem and Goodness-of-fit	
; 7.3 Two-Sample Problems	; 7.4 Multi-Sample Tests
; 8 Circular Correlation and Regression	; 8.1
Introduction	
8.2 A Circular Correlation Measure pc	

---

### Sommario/riassunto

This research monograph on circular data analysis covers some recent advances in the field, besides providing a brief introduction to, and a review of, existing methods and models. The primary focus is on recent research into topics such as change-point problems, predictive distributions, circular correlation and regression, etc. An important feature of this work is the S-plus subroutines provided for analyzing actual data sets. Coupled with the discussion of new theoretical research, the book should benefit both the researcher and the practitioner.

<br><i>Contents:</i><ul><li>Circular Probab

---