

ISSN: 2161-718X

Volume 13, Number 6, December 2023



Open Journal of Statistics



ISSN: 2161-718X



<https://www.scirp.org/journal/ojs>

Journal Editorial Board

ISSN 2161-718X (Print) ISSN 2161-7198 (Online)

<https://www.scirp.org/journal/ojs>

Editor-in-Chief

Prof. Qihua Wang

Chinese Academy of Sciences, China

Editorial Board

Prof. Ana M. Aguilera

University of Granada, Spain

Dr. Hijaz Ahmad

International Telematic University Uninettuno, Italy

Prof. Erniel B. Barrios

University of the Philippines, Philippines

Prof. Arthur Berg

Pennsylvania State University, USA

Prof. Alexander V. Bulinski

Lomonosov Moscow State University, Russia

Prof. José Moral de la Rubia

Autonomous University of Nuevo León, Mexico

Prof. Sara S. Dias

Polytechnic Institute of Leiria, Portugal

Prof. Wei-Chiang Hong

Asia Eastern University of Science and Technology, Chinese Taipei

Prof. Junsoo Lee

University of Alabama, USA

Prof. Tae-Hwy Lee

University of California, Riverside, USA

Dr. Qizhai Li

Chinese Academy of Sciences, China

Dr. Xuewen Lu

University of Calgary, Canada

Dr. Claudia Marin

University of Bari Aldo Moro, Italy

Prof. Emilio Matricciani

Politecnico di Milano, Italy

Prof. Claudio Morana

University of Milano-Bicocca, Italy

Prof. Felix Noyanim Nwobi

Imo State University, Nigeria

Prof. Maria Helena Pestana

ISCTE-IUL, Lisbon University, Portugal

Prof. Thu Pham-Gia

University of Moncton, Canada

Dr. Sybil Prince-Nelson

Washington and Lee University, USA

Prof. Gengsheng Qin

Georgia State University, USA

Prof. Mohammad Z. Raqab

University of Jordan, Jordan

Dr. Fathy H. Riad

Minia University, Egypt

Dr. Jose Antonio Roldán-Nofuentes

University of Granada, Spain

Dr. Sourav Santra

Sarepta Therapeutics, USA

Prof. Sunil K. Sapat

California State University, Los Angeles, USA

Prof. Biswajit Sarkar

Yonsei University, South Korea

Prof. Raghu Nandan Sengupta

Indian Institute of Technology Kanpur, India

Prof. Mohamed M. Shoukri

University of Western Ontario, Canada

Prof. Siva Sivaganesan

University of Cincinnati, USA

Prof. Jianguo Sun

University of Missouri, USA

Prof. Aida Toma

Academy of Economic Studies, Romania

Dr. Haiyan Wang

Kansas State University, USA

Prof. Augustine Chi Mou Wong

York University, Canada

Prof. Jingjing Wu

University of Calgary, Canada

Dr. Peng Zeng

Auburn University, USA

Dr. Tong (Tonja) Zeng

University of La Verne, USA

Dr. Jin-Ting Zhang

National University of Singapore, Singapore

Prof. Yichuan Zhao

Georgia State University, USA

Table of Contents

Volume 13 Number 6

December 2023

**Probability Distributions Arising in Connection
with the Inspection Paradox for Bernoulli Trials**

J. E. Marengo, A. M. Himes, W. C. Reinberger, D. L. Farnsworth..... 769

The Effect of Coding Method on Cause-of-Death Rankings

P. Harteloh 778

**Construction of Non-Symmetric Balanced Incomplete Block Design through
Combination of Symmetric Disjoint Balanced Incomplete Block Designs**

T. J. Benedict, O. Fredrick, K. Anthony, N. Edward..... 789

Weighted Maximum Likelihood Technique for Logistic Regression

I. A. Idriss, W. H. Cheng, Y. H. Fissuh 803

**Model-Free Ultra-High-Dimensional Feature Screening for Multi-Classified
Response Data Based on Weighted Jensen-Shannon Divergence**

Q. Q. Jiang, G. M. Deng..... 822

Ultra-High Dimensional Feature Selection and Mean Estimation under Missing at Random

W. H. Li, G. M. Deng, D. Pan 850

Asymptotic Consistency of the James-Stein Shrinkage Estimator

A. S. Mungo, V. M. Nawa..... 872

Dynamic Spatio-Temporal Modeling in Disease Mapping

F. A. Otieno, C. L. Tamba, J. O. Okenye, L. A. Orawo 893

**Model-Free Feature Screening via Maximal Information Coefficient (MIC)
for Ultrahigh-Dimensional Multiclass Classification**

T. T. Chen, G. M. Deng 917

**Combinations of Right Half-Plane Mappings and Vertical Strip Mappings Convex
in the Vertical Direction**

Y. L. Cai, Z. R. She, F. J. Zeng, L. Huang 941

Open Journal of Statistics (OJS)

Journal Information

SUBSCRIPTIONS

The *Open Journal of Statistics* (Online at Scientific Research Publishing, <https://www.scirp.org/>) is published bimonthly by Scientific Research Publishing, Inc., USA.

Subscription rates:

Print: \$69 per issue.

To subscribe, please contact Journals Subscriptions Department, E-mail: sub@scirp.org

SERVICES

Advertisements

Advertisement Sales Department, E-mail: service@scirp.org

Reprints (minimum quantity 100 copies)

Reprints Co-ordinator, Scientific Research Publishing, Inc., USA.

E-mail: sub@scirp.org

COPYRIGHT

Copyright and reuse rights for the front matter of the journal:

Copyright © 2023 by Scientific Research Publishing Inc.

This work is licensed under the Creative Commons Attribution International License (CC BY).

<http://creativecommons.org/licenses/by/4.0/>

Copyright for individual papers of the journal:

Copyright © 2023 by author(s) and Scientific Research Publishing Inc.

Reuse rights for individual papers:

Note: At SCIRP authors can choose between CC BY and CC BY-NC. Please consult each paper for its reuse rights.

Disclaimer of liability

Statements and opinions expressed in the articles and communications are those of the individual contributors and not the statements and opinion of Scientific Research Publishing, Inc. We assume no responsibility or liability for any damage or injury to persons or property arising out of the use of any materials, instructions, methods or ideas contained herein. We expressly disclaim any implied warranties of merchantability or fitness for a particular purpose. If expert assistance is required, the services of a competent professional person should be sought.

PRODUCTION INFORMATION

For manuscripts that have been accepted for publication, please contact:

E-mail: ojs@scirp.org



Call for Papers

Open Journal of Statistics

ISSN 2161-718X (Print) ISSN 2161-7198 (Online)

<https://www.scirp.org/journal/ojs>

Open Journal of Statistics (OJS) is an international journal dedicated to the latest advancement of statistics. The goal of this journal is to provide a platform for scientists and academicians all over the world to promote, share, and discuss various new issues and developments in different areas of statistics.

Editor-in-Chief

Prof. Qihua Wang

Chinese Academy of Sciences, China

Editorial Board

Prof. Ana M. Aguilera
Dr. Hijaz Ahmad
Prof. Erniel B. Barrios
Prof. Arthur Berg
Prof. Alexander V. Bulinski
Prof. José Moral de la Rubia
Prof. Sara S. Dias
Prof. Wei-Chiang Hong
Prof. Junsoo Lee
Prof. Tae-Hwy Lee
Dr. Qizhai Li
Dr. Xuewen Lu
Dr. Claudia Marin

Prof. Felix Noyanim Nwobi
Prof. Emilio Matricciani
Prof. Claudio Morana
Prof. Maria Helena Pestana
Prof. Thu Pham-Gia
Dr. Sybil Prince-Nelson
Prof. Gengsheng Qin
Prof. Mohammad Z. Raqab
Dr. Fathy H. Riad
Dr. Jose Antonio Roldán-Nofuentes
Dr. Sourav Santra
Prof. Sunil K. Sapra
Prof. Biswajit Sarkar

Prof. Raghu Nandan Sengupta
Prof. Mohamed M. Shoukri
Prof. Siva Sivaganesan
Prof. Jianguo Sun
Prof. Aida Toma
Dr. Haiyan Wang
Prof. Augustine Chi Mou Wong
Prof. Jingjing Wu
Dr. Peng Zeng
Dr. Tong (Tonia) Zeng
Dr. Jin-Ting Zhang
Prof. Yichuan Zhao

Subject Coverage

This journal invites original research and review papers that address the following issues in statistics. Topics of interest include, but are not limited to:

- ◆ Actuarial science
- ◆ Applied information economics
- ◆ Asymptotic statistics
- ◆ Bayesian statistics
- ◆ Biostatistics
- ◆ Business statistics
- ◆ Causal inference
- ◆ Chemometrics
- ◆ Computational statistics
- ◆ Data mining
- ◆ Decision theory
- ◆ Demography
- ◆ Descriptive statistics
- ◆ Design of experiments
- ◆ Econometrics
- ◆ Energy statistics
- ◆ Engineering statistics
- ◆ Epidemiology
- ◆ Estimation theory
- ◆ Geographic information systems
- ◆ Graphic models and related theory
- ◆ High dimensional data analysis
- ◆ Image processing
- ◆ Multivariate analysis
- ◆ Non-parametric statistics
- ◆ Parametric statistics
- ◆ Psychological statistics
- ◆ Regression analysis
- ◆ Reliability
- ◆ Reliability engineering
- ◆ Sample survey
- ◆ Sampling theory
- ◆ Semiparametric statistics
- ◆ Social statistics
- ◆ Statistical analysis with complex data
- ◆ Statistical computing
- ◆ Statistical inference
- ◆ Statistical methods
- ◆ Survival analysis
- ◆ Theoretic methods
- ◆ Time series analysis

We are also interested in short papers (letters) that clearly address a specific problem, and short survey or position papers that sketch the results or problems on a specific topic. Authors of selected short papers would be invited to write a regular paper on the same topic for future issues of the OJS.

Notes for Intending Authors

Submitted papers should not have been previously published nor be currently under consideration for publication elsewhere. Paper submission will be handled electronically through the website. All papers are refereed through a peer review process. For more details about the submissions, please access the website.

Website and E-Mail

<https://www.scirp.org/journal/ojs>

E-mail: ojs@scirp.org