SSCA Statistics and Applications

LIST OF ACCEPTED PAPERS TO APPEAR IN THE FORTHCOMING VOLUMES OF STATISTICS AND APPLICATIONS

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Volume 23, No. 2, 2025 (December Issue)

1. Gumbel Distribution: Comparison of Bayesian Estimators Under Various Loss Functions
(*Authors: P.M. Safwana and C. Chandran*)
Accepted: 10 August 2024

2. Transient State Solution of Retrial Queueing System with Catastrophe
(*Authors: Neelam Singla and Ankita Garg*)
Accepted: 24 August 2024

3. Finite Mixtures of Matrix Variate Log-normal Distributions for Clustering Skewed Three-Way Data
(*Authors: Shiva Kumar Kurva and Kiruthika C.*)
Accepted: 03 September 2024

4. Balanced and Partially Balanced Semi-Latin Rectangles with Block Size Two
(*Authors: Kaushal Kumar Yadav, Sukanta Dash, Rajender Parsad, Baidya Nath Mandal, Anil Kumar and Mukesh Kumar*)
Accepted: 06 September 2024

5. Three and Four Component Uniform Mixture Designs Based on Ellipsoidal Region- A Beginner's Training Manual
(*Authors: Poonam Singh and Himanshu Shukla*)
Accepted: 18 September 2024

6. On Renewal Processes - Some Bounds and Characterisations
(*Authors: S. Ravi and Suman Kalyan Ghosh*)
Accepted: 23 September 2024

7. The Modified Logistic Two-Parameter Estimators
(*Authors: Thayaparan Kayathiri, Manickavasagar Kayanan, and Pushpakanthie Wijekoon*)
Accepted: 04 October 2024

8. Wrapped Generalized Lindley Distribution with Applications to Directional Data
(*Authors: Imliyangba and Bhanita Das*)
Accepted: 08 October 2024

9. On the Likelihood Ordering and Tail Behavior of Certain Classes of Skew Normal Distributions
(*Authors: M.R. Anusree and C. Satheesh Kumar*)
Accepted: 06 November 2024

10. Advancements in Power Inverse Rayleigh Modeling: Exploring Applications in Environmental and Medical Domains
(*Authors: Aadil Ahmad Mir, S. P. Ahmad and A. A. Bhat*)
Accepted: 19 November 2024

11. VTPC: A Novel Virtual Tree Approach for Efficient Population Count in Binary Sequences
(*Authors: Samarth Godara, Prakash Kumar, Deepak Singh and Raju Kumar*)
Accepted: 06 December 2024

12. Time Dependent Performance Analysis of Asynchronous Internet Switch - Multi Server Queueing System and Markovian QBD Process
(*Authors: Malla Reddy Perati, Shivaji Arepelly and Abhilash Vollala*)
Accepted: 29 December 2024

13. Bayesian DCC-MGARCH Models for Understanding the Price Dynamics of Volatile Series: A Case Study on Pulses Price in India
(*Authors: Achal Lama, Girish K. Jha, Bishal Gurung and Saurav Guha*
Accepted: 10 January 2025

14. Nonparametric Tests Based on Ranks for Independence against Weighted Alternative with Missing Values
(*Authors: Parameshwar V. Pandit, Deepa Yogesh Kamat and Shubhashree Joshi*)
Accepted: 03 February 2025

15. On Log Odd Burr III Weibull Regression Model and its Application in Survival Analysis
(*Authors: Deepthy G.S., Lakshmi R. and Nicy Sebastian*)
Accepted: 18 March 2025

16. Reducing Dimensionality and Modeling Structural Dependence in Data Streams: An Approach Using Copula Matrices
(*Authors: Fereshteh Arad, Ayyub Sheikhi and Farshid Keynia*)
Accepted: 31 March 2025

17. A framework for building a novel Causal Proximity Driven GNN from Biomedical Text
(Authors: *Samridhi Dev and Aditi Sharan*)
Accepted: 02 April 2025

18. Small Area Estimation Technique in Forestry Sector with Special Emphasis on National Forest Inventory: A Review
(Authors: *Kamal Pandey, Sunil Chandra, Girish Chandra and Salman Khan*)
Accepted: 20 April 2025

Shorter Communications

19. Resolvability of Some BIB and Regular Group Divisible Designs
(*Authors*: *Shyam Saurabh, Sheet Nihal Topno and Dinesh Prasad*)
Accepted: 29 December 2024

20. Prabhu-Ajgaonkar's 1967 Result Revisited
(*Authors: Bikas K. Sinha and Manisha Pal*)
Accepted: 02 April 2025

Forthcoming Accepted Papers

1. Analyzing the Power Gemeay Distribution: Properties and Diverse Applications
(*Authors: Lishamol Tomy, Anagha K. and Ahmed M.Gemeay*)
Accepted: 30 April 2025

2. An Inferential Study of Two Kumaraswamy Populations Under Joint Ranked Set Sampling
(*Authors: Mahesh K. Bhingikar and D. P. Raykundaliya*)
Accepted: 04 May 2025

3. A Family of Additive-Multiplicative Frailty Models Using the Inverse Gaussian as Frailty Distribution
(*Authors: Alok D. Dabade*)
Accepted: 07 June 2025

4. Competing Risks Analysis of factors influencing the runs scored by Top T20 Batsmen - A Survival Analysis Approach
(*Authors: M. Sathishkumar, M. Ramakrishnan and N. Viswanathan*)
Accepted: 09 June 2025

5. Understanding North Atlantic Climate Instabilities and Complex Interactions Using Data Science
(*Authors: Alka Yadav, Sourish Das, Anirban Chakraborti and Sudeep Shukla*)
Accepted: 28 June 2025

6. Stress-Strength Reliability Analysis of Power Function and Nakagami Distributions using Comparative Sampling
(*Authors: Surinder Kumar, Rahul Shukla and Bhupendra Meena*)
Accepted: 15 July 2025

7. Zero-One-Inflated Poisson-Garima Distribution and its Applications in Biomedical Studies
(*Authors: Divya A., Prasanth C. B. and Muhammed Anvar P.*)
Accepted: 23 July 2025

8. Semi-supervised Feature Selection using Maximum Mutual Information and Minimum Correlation through Augmented Learning
(*Authors: Arghya Kusum Das, Saptarsi Goswami, Amlan Chakrabarti and Basabi Chakraborty*)
Accepted: 29 July 2025

9. R-optimal Mixture Designs for Special Cubic Model
(*Authors: Mahesh Kumar Panda*)
Accepted: 26 August 2025

10. Poisson–Transmuted Geometric Convolution for Overdispersed Count Data
(*Authors: Anupama Nandi1, Partha Jyoti Hazarika, Aniket Biswas, Mahmoud. El-Morshedy, Mora Alizadeh, Hadi Saboori6 and Mohamed S. Eliwa*)
Accepted: 05 September 2025

11. Nonparametric Estimation and Analysis of Conditional Dynamic Failure Extropy in Bivariate Systems
(*Authors: Lekshmi Krishnan C. U. and E. I. Abdul Sathar*)
Accepted: 25 September 2025

12. ROC Curve for Binary Classification using X Lindley Distribution
Authors: Sandhya Singh and Saebugari Balaswamy)
Accepted: 10 October 2025

13. Reliability Analysis of a Phased Mission System under Degradation using Wiener Process and Copulas
(*Authors: Satya Rani and Preeti Wanti Srivastava*)
Accepted: 30 October 2025

14. A Hyperspectral and Deep Learning Approach for Wheat Yield Prediction
(*Authors: Mohit Kumar, Alka Arora, Sudeep Marwaha, Viswanathan Chinnusamy, Sudhir Kumar, Soumen Pal, Mrinmoy Ray and Rajkumar Dhakar*)
Accepted: 03 November 2025

Special Issue of the Journal 'Statistics and Applications' (June 2026)

"Recent Advances in Bayesian Statistics and Machine Learning"

Guest Editors

Durba Bhattacharya (St. Xavier's College (Autonomous), Kolkata)
Sourabh Bhattacharya (Indian Statistical Institute, Kolkata)
Sourish Das (Chennai Mathematical Institute)

AIM

The aim of this special issue is to bring together recent developments, innovative methodologies, and impactful applications in Bayesian statistics and machine learning. Bayesian methods have become increasingly central to modern data science, offering principled frameworks for uncertainty quantification, interpretability, and decision-making. At the same time, machine learning continues to expand its capabilities and influence across disciplines, inspired by advances in computation, data availability, and algorithmic design.

This special issue seeks to highlight theoretical contributions, novel algorithms, computational strategies, and real-world applications that leverage Bayesian principles within machine learning and allied fields. We invite high-quality original research papers, review articles, and case studies that demonstrate how Bayesian methods are advancing the frontiers of machine learning, or how machine learning techniques are being enriched by Bayesian reasoning.

Topics of interest include, but not limited to:

- Bayesian inference and posterior computation (e.g., MCMC, variational inference, approximate Bayesian computation)
- Bayesian deep learning and probabilistic neural networks
- Bayesian nonparametrics and hierarchical models
- Bayesian optimization and reinforcement learning
- Bayesian approaches to causal inference and decision theory
- Scalable Bayesian computation and big data analytics
- Uncertainty quantification in AI and machine learning systems
- Bayesian methods for time series, spatial statistics, and complex networks