

JOURNAL ARTICLES 2022-2023

1. Jha S., Shekhar S., Mandal T., Multiplicities in Selmer groups and root numbers for Artin twists: *Journal of Number Theory*, Vol- 238, 147-182 (2022).
2. Chavan S., Jain S. and Pramanick P., Von Neumann's inequality for the Hartogs triangle: *New York Journal of Mathematics*, Vol-28, 791-799 (2022).
3. Chavan S., Ghara S. and Md Reza R., The Cauchy dual subnormality problem via de Branges-Rovnyak spaces: *Studia Mathematica*, Vol- 265,791-799 (2022).
4. Chavan S., Morye A., The Eigensheaf of an Operator: *New York Journal of Mathematics*, Vol- 28, 868-883 (2022).
5. Chavan S., Sahu C. K., Dirichlet polynomials and a moment problem: *Banach J. Math. Anal.*, Vol- 16, Paper No. 63, 23 pp (2022).
6. Chavan S., Gupta R. and Sinha K. B., Weighted join operators on directed trees: *Complex Anal. Oper. Theory*, Vol-17, Paper No. 36, 1-102 (2023).
7. Chavan S., Md. Reza R., Bi-isometries reducing the hyper-ranges of the coordinates: *Linear algebra and its applications*, Vol- 668, 51-63 (2023).
8. Cisneros D., Gong Y., Yadav R., Hazra A. & Huser R., A combined statistical and machine learning approach for spatial prediction of extreme wildfire frequencies and sizes: *Extremes*, Vol-26,301-330 (2023).
9. Agarwal M., Vats D., Globally Centered Autocovariances in MCMC: *Journal of Graphical and Computational Statistics*, Vol-31,629-638 (2022).
10. Vats D., Flegal J., Lugsail lag windows for estimating time-average covariance matrices: *Biometrika*, Vol- 109, 735-750 (2022).
11. Vats D., Goncalves F., Łatuszyński K., Roberts G., Efficient Bernoulli factory Markov chain Monte Carlo for intractable posteriors: *Biometrika*, Vol- 109,369-385 (2022).
12. Liu Y., Vats D. & James M. Flegal, Batch Size Selection for Variance Estimators in MCMC: *Methodology and Computing in Applied Probability*, Vol- 24, 65-93 (2022).
13. Agarwal M., Vats D., Elvira V., A principled stopping rule for importance sampling: *Electronic Journal of Statistics*, Vol- 16, 5570-5590 (2022).
14. Zhou Q, Yang J., Vats D., Roberts Gareth O., Jeffrey S. Rosenthal, Dimension-Free Mixing for High-Dimensional Bayesian Variable Selection: *Journal of the Royal Statistical Society Series B: Statistical Methodology*, Vol- 84, 1751-1784 (2022).
15. Agrawal S., Vats D., Łatuszyński K., Roberts Gareth O., Optimal scaling of MCMC beyond Metropolis: *Advances in Applied Probability*, Vol- 55, 492-509 (2022).

16. Muthukumar P. and Shankar P., Multiplication Operators Between Discrete Hardy Spaces on Rooted Trees: Lobachevskii Journal of Mathematics, Vol- 43, 3252-3263 (2022).
17. Muthukumar P. and Sarkar J., Model spaces invariant under composition operators: Canadian Mathematical Bulletin, Vol- 66, 204-217 (2023).
18. Muthukumar P., Sharma Ajay K. and Kumar V., Weighted Composition Operators Between Weighted Hardy Spaces on Rooted Trees: Mediterranean Journal of Mathematics, Vol- 20 (Article No: 61), 20 pages (2023).
19. Dhar S.S. and Shalabh, GIVE Statistic for Goodness of Fit in Instrumental Variables Models with Application to COVID Data: Nature Scientific Reports, Vol-12 (2022).
20. Dhar S. S., Chatterjee U. and Shalabh, A Note on Asymptotic Distribution of Trimmed mean: Journal of the Indian Society for Probability and Statistics, (Special Issue of the 40th Convention of ISPS), Vol- 23, 327-335 (2022).
21. Bagchi, P. and Dhar, S. S., Characterization of the least squares estimator: mis-specified multivariate isotonic regression model with dependent error: Teoriya Veroyatnostei i Matematicheskaya Statistika (Russian version) /Theory of Probability and Mathematical Statistics (English version), (2023).
22. Dhar, S. S. and Wu, W., Comparing time varying regression quantiles under shift invariance.: Bernoulli, Vol- 29, 1527-1554 (2023).
23. Dhar, S. S., Jha, P. and Rakshit, P., The Trimmed Mean in Non-parametric Regression Function Estimation.: Teoriya Veroyatnostei i Matematicheskaya Statistika (Russian version) /Theory of Probability and Mathematical Statistics (English version), Vol- 107, 133-158 (2022).
24. Chatterji S., Roy S., Sadhukhan S., Sen A. and Zeng H., Probabilistic Fixed Ballot Rules and Hybrid Domains: Journal of Mathematics Economics, Vol- 100 (2022).
25. Mandal A. and Sarkar A., On Lie algebroid over algebraic spaces: Communications in Algebra, Vol- 51 no 4, 1594-1613 (2023).
26. Fialowski A. and Mandal A., On metric Leibniz algebras and deformations: International Journal of Algebra and Computation, Vol- 32 no.3, 597-616 (2022).
27. Duarte Belmiro P. M., Atkinson Anthony C., Singh S. P. & Reis M. S., Optimal design of experiments for hypothesis testing on ordered treatments via intersection-union tests: Statistical Papers, Vol- 64, 587-615 (2022).
28. Belmiro P. Durate M., Singh S. P. and Moura M. J., Optimal design of multivariate acceptance sampling plans by variables: Journal of Statistical Computation and Simulation, Vol- 92, 3129-3149 (2022).

29. Prajapat K., Mondal S., Mitra S. and Kundu D., Meta analysis of exponential lifetime data from type-I hybrid censored samples: Communications in Statistics - Theory and Methods, <https://doi.org/10.1080/03610926.2023.2169048> (2023).
30. Pal A., Mitra S. and Kundu D., Order restricted inference for a multiple step-stress model with long-term survivors for a general family of distributions: Applied Stochastic Models in Business and Industry, <https://doi.org/10.1002/asmb.2754> (2023).
31. Prajapat K., Mitra S. and Kundu D., A consistent method of estimation for three-parameter generalized exponential distribution: Communications in Statistics - Simulation and Computation, <https://doi.org/10.1080/03610918.2021.1908557> (2023).
32. Prajapati D., Mitra S., Kundu D. and Pal A., Optimal Bayesian Sampling Plan for Competing Risks Data: Journal of Statistical Computation and Simulation, Vol- 93(5), 775-799 (2023).
33. Prajapati D., Mitra S. and Kundu D., Bayesian Sampling Plan for the Exponential Distribution with Generalized Type - I Hybrid Censoring Scheme: Journal of Statistical Theory and Practice, Vol- 17, Article No. 5 (2023).
34. Bakshi K. C., Guin S. and Sruthymurali, Fourier theoretic inequalities for inclusions of simple C^* -algebras: New York Journal of Mathematics, Vol- 19, 335-362 (2023).
35. Chowdhury I. and Roy P., On fractional Poincaré inequality for unbounded domains with finite ball conditions: Counter example: Nonlinear Analysis, Vol- 228, 113189, (113189) pages 1-16 (2023).
36. Roy S., Sarkar S., Dutta S., Ghosh AK, On Generalizations of Some Distance Based Classifiers for HDLSS Data: Journal of Machine Learning Research, Vol- 23, 1-41 (2022).
37. Singh R., Dutta S., Misra N., Some multivariate goodness of fit tests based on data depth : Journal of Nonparametric Statistics, Vol- 34, 428-447 (2022).
38. Chowdhury J, Dutta S, Arellano-Valle RB, Genton MG, Sub-dimensional Mardia measures of multivariate skewness and kurtosis: Journal of Multivariate Analysis, Vol- 192, 105089 (2022).
39. Das S, Dutta S, Srivastava R., On a new higher order kernel for density estimation: Stat, Vol-12, e526 (2023).
40. Kumar A. and Shelah S., Large Turing independent sets: Proceedings of the American Mathematical Society, Vol- 151, 355-367 (2023).
41. Kumar A. and Raghavan D., Supersaturated ideals: Topology and its Applications, Vol-323, 108-289 (2023).
42. Li D., Mukhopadhyay M., Dunson D., Efficient manifold approximation with spherelets : Journal of the Royal Statistical Society Series B, Vol-84 (Issue 4), 1057-1585 (2022).
43. Patnaik S., On Simplicity of Lie Algebras of Compact Operators: A Direct Approach: Journal of Mathematical Analysis and Applications, Vol- 510, 1 to 8 (2022).

44. Sachan D., Sharma I. and Muthukumar T., Axisymmetric indentation of a Periodically Layered, Viscoelastic Half-Space: *Zeitschrift für angewandte Mathematik und Physik*, Vol- 73(222), 1—35 (2022).
45. Muthukumar T. and Sankar K., Homogenization of the Stokes System in a Domain with an Oscillating Boundary: *Multiscale Modeling and Simulation (A SIAM Interdisciplinary Journal)*, Vol- 20 (4), 361—1393 (2022).
46. Guin S. and Bipul S., Equivariant spectral triples for homogeneous spaces of the compact quantum group $U_q(2)$, *Math. Phys. Anal. Geom.*, Vol- Paper no. 21, 15pp (2022).
47. Guin S. and Bipul S., Equivariant spectral triple for the quantum group $U_q(2)$ for complex deformation parameters: *J. Geom. Phys.*, Vol- Paper No. 104748, 22 pp. (2023).
48. Chandel V. S., Bera S. and Londhe M., On a spectral version of Cartan's theorem: *Journal of Geometric Analysis*, Vol- 2, 1-27 (2022).
49. Govindarajan S., Sharma S. S. and Viswanath S., Brylinski filtration of affine Kac-Moody algebras and representations of W-algebras: *Algebra and representation theory*, Vol- 26, 491-512 (2023).
50. Singh R. and Misra N., U-statistic based on overlapping sample spacings.: *Journal of Statistical Planning and Inference*, Vol- 224, 98-108 (2023).
51. Garg N. and Misra N., Estimation of order restricted location/scale parameters of a general bivariate distribution under general loss function: some unified results: *Japanese Journal of Statistics and Data Science*, Vol- 37(1), 101-123 (2023).
52. Garg N. and Misra N., Estimation of order restricted location/scale parameters of a general bivariate distribution under general loss function: some unified results: *Japanese Journal of Statistics and Data Science*, Vol- 5(2), 553-576 (2022).
53. Singh R. and Misra N., Some parametric tests based on sample spacings: *TEST*, Vol- ,1-21 (2022).
54. Singh R., S Dutta and Misra N., Some multivariate goodness of fit tests based on data depth: *Journal of Nonparametric Statistics*, Vol- 34(2), 428-447 (2022).
55. Bhojak A. & Mohanty P., Weak type bounds for rough maximal singular integrals near L^1 : *J. Funct. Anal*, Vol-284, (2023).
56. Bandyopadhyay C.; Mohanty P., Equality in Hausdorff- Young in hypergroup: *Banach J. Math. Anal*, Vol- 16 (2022).
57. Ghosh A., Mohanty P., Weighted inequalities for higher dimensional one-sided Hardy-Littlewood maximal function in Orlicz spaces.: *Expo. Math.*, Vol- 40 (2022).
58. Tiwari A. K., Pandey A., Paul J., Anand A., A fast rapidly convergent method for approximation of convolutions with applications to wave scattering and some other problems: *Journal of Computational Physics*, Vol- 459 (2022).

59. Pattanayak S., Nadimpalli S., ON UNIQUENESS OF BRANCHING TO FIXED POINT LIE SUBALGEBRAS: Forum Mathematicum, Vol- 34, 1663-1678 (2022).
60. Mondal A. K., Nadimpalli S., On the duality involution for p-adic General Spin Groups: Journal of Number theory, Vol- 248, 1-13 (2023).
61. Kaushik B. & Prashanta G., Weighted and anisotropic Sobolev inequality with extremal : manuscripta mathematica, Vol- 168, 101-117 (2022).
62. Jaiswal, A., Bahuguna D., Hilfer Fractional Differential Equations with Almost Sectorial Operators.: Differ. Equ. Dyn. Syst., Vol- 31(2), 301–317 (2023).
63. Younis, M., Bahuguna D., A unique approach to graph-based metric spaces with an application to rocket ascension: Comput. Appl. Math. Vol- 42(1), Paper No. 44, 19 pp. (2023).
64. Patel V. K., Bahuguna D., Numerical and approximate solutions for two-dimensional hyperbolic telegraph equation via wavelet matrices : Proc. Nat. Acad. Sci. India Sect. A, Vol- 92(4), 605–623 (2022).
65. Jeet K., Sukavanam N., Bahuguna D., Monotone iterative technique for nonlocal impulsive finite delay differential equations of fractional order : Differ. Equ. Dyn. Syst., Vol- 30(4), 801-816 (2022).
66. Roy J., Banerjee M., Global stability of a predator–prey model with generalist predator : Applied Mathematics Letters, Vol- 142, 108659 (2023).
67. Han R., Dey S., Banerjee M., Spatio-temporal pattern selection in a prey–predator model with hunting cooperation and Allee effect in prey : Chaos, Solitons & Fractals, Vol- 171, 113441 (2023).
68. Banerjee M., Ghosh S., Manfredi P., d’Onofrio A, Spatio-temporal chaos and clustering induced by nonlocal information and vaccine hesitancy in the SIR epidemic model: Chaos, Solitons & Fractals, Vol- 170, 113339 (2023).
69. Dey S., Ghosh A., Banerjee M., A mathematical modeling technique to understand the role of decoy receptors in ligand-receptor interaction : Scientific Reports, Vol- 13(1), 6523 (2023).
70. Roy J., Dey S., Banerjee M., Maturation delay induced stability enhancement and shift of bifurcation thresholds in a predator–prey model with generalist predator : Mathematics and Computers in Simulation, Vol- 211, 368 – 393 (2023).
71. Chowdhury P. R., Petrovskii S., Volpert V., Banerjee M., Attractors and long transients in a spatio-temporal slow–fast Bazykin’s model: Communications in Nonlinear Science and Numerical Simulation, Vol- 118, 107014 (2023).

72. Ni D., Ma W., Banerjee M., Dynamics of a PDE model with size-structure: Characterizing the growth and flocculation effects of unicellular algae: *Chaos, Solitons & Fractals*, Vol- 167, 113054 (2023).
73. Chowdhury P.R., Banerjee M., Petrovskii S., Coexistence of chaotic and non-chaotic attractors in a three-species slow–fast system: *Chaos, Solitons & Fractals*, Vol- 167, 113015 (2023).
74. Ghosh S., Volpert V., Banerjee M., An age-dependent immuno-epidemiological model with distributed recovery and death rates: *Journal of Mathematical Biology*, 86 (2), 21, (2023).
75. Banerjee M., Lipniacki T., d’Onofrio A., Volpert V., Epidemic model with strain-dependent transmission rate: *Communications in Nonlinear Science and Numerical Simulation*, Vol- 114, 106641 (2022).
76. Dey S., Banerjee M., Ghorai S., Bifurcation Analysis and Spatio-Temporal Patterns of a Prey–Predator Model with Hunting Cooperation: *International Journal of Bifurcation and Chaos*, Vol-32 (11), 2250173 (2022).
77. Chowdhury P.R., Banerjee M., Petrovskii S., Canards, relaxation oscillations, and pattern formation in a slow-fast ratio-dependent predator-prey system : *Applied Mathematical Modelling*, Vol-109, 519-535 (2022).
78. Banerjee M., Pal S., Chowdhury P.R., Stationary and non-stationary pattern formation over fragmented habitat, Vol- 162, 112412 (2022).
79. Ghosh S., Volpert V., Banerjee M., An epidemic model with time-distributed recovery and death rates: *Bulletin of Mathematical Biology*, Vol- 84 (8), 78 (2022).
80. Sultana F., Koley A., Pal A. and Kundu D., On two exponential populations under a joint adaptive type-II progressive censoring: *Statistics*, Vol- 55(6), 1328 – 1355 (2022).
81. Mohammed A. Meraou, Noriah M. Al-Kandari, M.Z. Raqab and D. Kundu, Analysis of Skewed Data by using Compound Poisson-Exponential Distribution with Applications to Insurance Claims: *Journal of Statistical Computation and Simulation*, Vol- 92, no. 5, 928-956 (2022).
82. D. Kundu, Stationary GE-process and its application in analyzing gold price data: *Sankhya, Ser B*, Vol- Vol. 84, Issue 2, 575-595 (2022).
83. Alqallaf F A. and Kundu D., A bivariate inverse generalized exponential distribution and its applications in dependent competing risks model : *Communications in Statistics - Simulation and Computation*, Vol-51, no. 12, 7019 – 7036 (2022).
84. Swagata Nandi and D. Kundu, Estimating parameters in multichannel sinu-soidal mode: *Circuits, Systems and Signal Processing*, Vol- 41, 4604 – 4631 (2022).

85. Nandi S., Grover R. and Kundu D., Estimating of parameters of two-dimensional random amplitude chirp signal in additive noise : *Multidimensional Systems and Signal Processing*, Vol- 33, 1045 – 1068 (2022).
86. Cetinkaya C., Sultana F. and Kundu D., Exact likelihood inference for two exponential populations under jointly generalized progressive hybrid censoring : *Journal of Statistical Computation and Simulation*, Vol- 92, no. 17, 3605 – 3629 (2022).
87. Koushik M., Kayal S. and Kundu D., Statistical inference on the Shannon and Renyi entropy measures of generalized exponential distribution under the progressive censoring: *Springer Nature Computer Science*, Vol- 3, No. 317 (2022).
88. Shukla A., Grover R., Kundu D. and Mitra A., Approximate least squares estimators of a two-dimensional chirp model : *Journal of Multivariate Analysis*, Vol- 192, No. 105045. (2022).
89. Kundu D., Bivariate semi-parametric singular family of distributions and its applications ; *Sankhya, Ser B*, Vol- 84, Part 2, 846 – 872 (2022).
90. Mondal S. and Kundu D., Exact likelihood ratio test and Wald tests for the Balanced Joint Progressive Censoring scheme : *Applied Stochastic Models in Business and Industry*, Vol- 38, Issue 6, 1113 – 1126 (2022).
91. Samanta D., Mondal S. and Kundu D., Optimal plan for ordered step-stress stage life testing: *Statistics*, Vol- 56, No. 6, 1319 – 1344 (2022).
92. Kundu D., Nandi S. and Grover R., On Weighted Least Squares Estimators of Parameters of a Chirp Model : *Circuits, Systems and Signal Processing*, Vol- 42, No. 1, 493 – 521 (2023).
93. Pal A., Samanta D. and Kundu D., Cure rate based step-stress model : *Journal of Statistical Theory and Practice*, Vol. 17, Article No. 15. (2023).
94. Prajapati D., Mitra S. and Kundu D., Bayesian Sampling Plan for the Exponential Distribution with Generalized Type - II Hybrid Censoring Scheme : *Communications in Statistics - Simulation and Computation*, Vol. 52, No. 2, 533 -556. (2023).
95. Kiran Prajapat, Arnab Koley, Sharmistha Mitra and D. Kundu, An optimal Bayesian sampling plan for two-parameter exponential distribution under Type-I hybrid censoring: *Sankhya, Ser A*, Vol. 85-A, Part 1, 512 – 539 (2023).
96. Howlader P. and Banerjee M., Topological representation of double Boolean algebras: *Algebra Universalis*, Vol- 84:15, 1-32 (2023).
97. Khan M.A., Banerjee M. and Panda, S., Logics for temporal information systems in rough set theory: *ACM Transactions on Computational Logic*, Vol- 24(1),1-29 (2023).
98. Banerjee M. and Chakraborty M.K., Zdzisław Pawlak and our journey with rough sets : *Transactions on Rough Sets*, Vol- XXIII, 3-11 (2023).

99. Howlader P. and Banerjee M., A non-distributive logic for semiconcepts and its modal extension with semantics based on Kripke contexts: *Int. J. Approximate Reasoning*, Vol- 153, 115-143 (2023).
100. Howlader P. and Banerjee M., Kripke contexts, double Boolean algebras with operators and corresponding modal systems: *Journal of Logic, Language and Information*, Vol- 32, 117-146 (2023).
101. More A. K. and Banerjee M., Contrapositively complemented Heyting algebras and intuitionistic logic with minimal negation: *Logic Journal of the IGPL*, Vol- jzac041, 1-34 (2022).
102. Dayan Y., Ganguly A. and Weiss B., Random walk on Tori and normal numbers in self-similar sets: *American Journal of Mathematics* (2023).
103. Baier S., Molla E. A. and Ganguly A., Diophantine approximation with prime restriction in function fields: *Journal of Number Theory*, Vol- 241, 57-90 (2022).
104. Dutta G. C., Sen D., Thakur A. S., Equivariant self-homotopy equivalences of product spaces: *Topology and its Applications*, Vol- 325, Article no. 1083 90 (2023).
105. Kumar S., Rai S. K., Rathish Kumar B.V. and Om Shankar, The pulsatile 3D-Hemodynamics in a doubly afflicted human descending abdominal artery with iliac branching: *CMBBE* (2022).
106. Jha R. R., Pathak S. K., Nath V., Schneider W., Rathish Kumar B.V., Bhavsar A., Nigam A., VRfRNet: Volumetric ROI fODF reconstruction network for estimation of multi-tissue constrained spherical deconvolution with only single shell dMRI: *MRI*, Vol- 90, 1-16 (2022).
107. Bhat S. P., Rathish Kumar B. V., Kalamkar S. R., Kumar V., Pathak S. and Schneider W., Modeling and simulation of the potential indoor airborne transmission of SARS-CoV-2 virus through respiratory droplets: *Physics of Fluids*, Vol- 34, 031909 (2022).
108. Rathish Kumar B.V. and Chowdhury M., Variational multiscale stabilized finite element analysis of non-Newtonian Casson fluid flow model fully coupled with Transport equation with variable diffusion coefficients: *Comput. Methods Appl. Mech. Engrg*, Vol- 388, 114272 (2022).
109. Kumar V., Murthy Krishna S.V.S.S.N.V.G, Rathish Kumar B.V., Multi-force effect on fluid flow, heat and mass transfer, and entropy generation in a stratified fluid-saturated porous enclosure: *Mathematics and Computers in Simulation*, Vol- 203, 328-367 (2022).
110. Kumar V., Murthy Krishna S.V.S.S.N.V.G, Rathish Kumar B.V., Entropy generation in a chemically and thermally reinforced doubly stratified porous enclosure in a magnetic field: *Physics of Fluids*, Vol- 34, 013307 (2022).

111. Rathish Kumar B.V. and Pathak P., Linear stability analysis of convection in a solid partitioned inhomogeneous multilayered porous structure: *Physics of Fluids*, Vol- 34, 076601 (2022).

BOOK CHAPTERS

1. Dhar S.S., Shalabh, Jha P. and Acharyya A., *Advanced Mathematical Techniques Applicable in Computational and Intelligent Systems*, Taylor's & Francis, CRC Press (2023).
2. Shalabh, Dhar S.S., Chakroborty C. and Jha P., *Statistical Modeling and Applications on Real-Time Problems*, Taylor's & Francis, CRC Press (2023).
3. Shalabh and Dhar S.S., *Recent Advances in G Families of Probability Distributions*, Taylor's & Francis, CRC Press (2023).
4. Shalabh, *Recent Advances in Applied Statistics*, Springer Nature, 291-307 (2022).
5. Kundu D., Prajapati D., *Symmetric Geometric Skew normal regression model*, 87-103 (2023).
6. Kundu D., *Bivariate distributions with singular components*, Springer Handbook of Engineering Statistics 733-761 (2023).
7. Banerjee M., *Algebraic logic and rough set theory*. In *Handbook of Logical Thought in India*, Springer, New Delhi, 1-50, ISBN 978-81-322-1812-8 (2022).