

JOURNAL ARTICLES 2018-2019

1. *Bulletin Sci. Math*, “An operator-valued kernel associated with a commuting tuple of Hilbert space operators”, Sameer Chavan, 2018, 145, 38-52
2. *Journal Math Anal Appl*, “Commutants and reflexivity of multiplication tuples on vector-valued reproducing kernel Hilbert spaces”, Sameer Chavan, Shubhankar Podder and Shailesh Trivedi, 2018, 466, 1337-1358
3. *Journal of Operator theory*, “Classification of Drury-Arveson-type Hilbert modules associated with certain directed graphs”, Sameer Chavan, Deepak kumar Pradhan and Shailesh Trivedi, 2019, 81, 21-60
4. *Banach J. Math. Anal*, “Complete systems of unitary invariants for some classes of 2-isometries”, Akash Anand, Sameer Chavan, Zenon Jablonski, and Jan Stochel, 2019, 13, 359-385
5. *Bulletin of the Australian Mathematical Society*, “Embedding of metric graphs on hyperbolic surfaces”, Bidyut Sanki, 2019
6. *Ecological complexity*, “Complex dynamics of a three species prey-predator model with intraguild predation”, D Sen, S Ghorai, M Banerjee, 2018, 34, 9-22.
7. *Ecological Complexity*, “Effects of density dependent cross-diffusion on the chaotic patterns in a ratio-dependent prey-predator model”, N Mukherjee, S Ghorai, M Banerjee, 2018, 36, 276-289.
8. *International Journal of Bifurcation and Chaos*, “Spatio-Temporal Pattern Formation in Holling–Tanner Type Model with Nonlocal Consumption of Resources”, Swadesh Pal, Malay Banerjee, S Ghorai, 2019, 29, 1930002 (19 pages).
9. *Mathematical biosciences*, “Effect of kernels on spatio-temporal patterns of a non-local prey-predator model”, S Pal, S Ghorai, M Banerjee, 2019, 310, 96-107.
10. *Letters in Biomathematics*, “Cross-diffusion induced Turing and non-Turing patterns in Rosenzweig-MacArthur model”, N Mukherjee, S Ghorai, M Banerjee, 2019,
11. *Communications on Stochastic Analysis*, “Parametric Family of SDEs Driven by Lévy Noise”, Suprio Bhar and Barun Sarkar, 2018, vol 12, Number 2, pp. 157-173
12. *Potential Analysis*, “Solutions of SPDE’s Associated with a Stochastic Flow”, Suprio Bhar, Rajeev Bhaskaran and Barun Sarkar, 2019, N.A., N.A. [Online First version, February 2, 2019, <https://doi.org/10.1007/s11118-019-09764-0>]

13. *Mathematical Inequalities and Applications*, “Dilation-commuting operators on power-weighted Orlicz classes”, Ron Kerman, Rama Rawat, Rajesh K. Singh, April 2019 , Volume 22, Number 2, 463-486.
14. *Bernoulli*, “Second Order Correctness of Perturbation Bootstrap M-Estimator of Multiple Linear Regression Parameter”, Debraj Das, Soumendra Nath Lahiri, 2019, 25(1), 654–682.
15. *Annals of Nuclear Energy*, “Estimation of Total Fusion Reactivity and Contribution from Suprathermal Tail using 3-parameter Dagum Ion Speed Distribution”, Debraj Das, Rudrodip Majumdar, 2016, 97, 66-75.
16. *Journal of Geometry and Physics*, “On Hom-Gerstenhaber algebras and Hom-Lie algebroids”, Ashis Mandal, Satyendra Kumar Mishra, 2018, 133, 287—302.
17. *Communications in Algebra*, “Hom-Lie-Rinehart algebras”, Ashis Mandal, Satyendra Kumar Mishra, 2018, 46 (9), 3722—3744.
18. *Sankhya, Ser. B.*, “Order restricted Bayesian analysis of simple step-stress model” Debashis Samanta, D. Kundu and Ayon Ganguly, 2018, vol. 80, no. 2, 195-221.
19. *Communications in Statistics - Simulation and Computation*, “Discriminating among Weibull, log-normal and log-logistic distributions”, M.Z. Raqab, S. Al-Awadhi, D. Kundu, 2018 , vol. 47, no. 5, 1397 - 1419.
20. *Journal of Multivariate Analysis*, “Asymptotic of approximate least squares estimators of parameters of two-dimensional chirp signal”, Rhythm Grover, D. Kundu, Amit Mitra, 2018, vol. 168, 211 - 220.
21. *Journal of the Iranian Statistical Society*, “On bivariate generalized exponential- power series class of distributions, Ali Akbar Jafari, Rasool Roozegar”, D. Kundu, 2018, vol. 17, no. 1, 63 - 88.
22. *Journal of Statistical Theory and Practice*, “Univariate and bivariate geometric discrete generalized exponential distribution”, D. Kundu, Vahid Nekoukhou, 2018 , vol. 12, no. 3, 595 - 614.
23. *Statistics*, “On approximate least squares estimators of parameters on one dimensional chirp signal”, Rhythm Grover, D. Kundu, Amit Mitra, 2018, vol. 52, no. 5, 1060 – 1085.
24. *Statistics*, “On classical and Bayesian order restricted inference for multiple exponential step stress model”, Debashis Samanta, Ayon Ganguly, Arindam Gupta, D. Kundu, 2019, vol. 53, no. 1, 177 – 195.
25. *Applied Stochastic Models in Business and Industry*, “Birnbaum-Saunders Distribution: A Review of Models, Analysis and Applications (with discussions)”, N. Balakrishnan, D. Kundu, 2019, vol. 35, no. 1, 4-132.

26. *Statistics*, “Estimating the fundamental frequency using modied Newton-Raphson algorithm” ,Swagata Nandi and D. Kundu, 2019, vol. 53, no. 2, 440 – 458.
27. *Münster Journal of Mathematics*, “Non-commutative twisted Euler characteristic”, S. Jha, S. Shekhar, 2018, Vol **11**, Issue 1, pages 1-12.
28. *Math. Biosci. Eng.*, “Stability of Hopf-bifurcating limit cycles in a diffusion-driven prey-predator system with Allee effect and time delay”, K. Manna and M. Banerjee, 2019, 16(4), 2411 - 2446.
29. *Comm. Nonlin. Sci. Num. Simu.*, “Detection of Turing patterns in a three species food chain model via amplitude equation”, N. Mukherjee, S. Ghorai and M. Banerjee, 2019, 69, 219 - 236.
30. *Eco. Comp.* , “Stationary, non-stationary and invasive patterns for a prey-predator system with additive Allee effect in prey growth”, K. Manna and M. Banerjee, 2018, 36, 206 - 217.
31. *Nonlin. Dyna.*, “Delayed feedback induced complex dynamics in an Escherichia coli and Tetrahymena system”, Y. Dong, M. Sen, M. Banerjee, Y. Takeuchi and S. Nakaoka, 2018, 94(2), 1447 - 1466.
32. *Ecol. Model.*, “Effects of contaminants and trophic cascade regulation on food chain stability: Application to cadmium soil pollution on small mammals-Raptor systems”, V. Baudrot, C. Fritsch, A. Perasso, M. Banerjee and F. Raoul, 2018, 382, 33 - 42.
33. *Acta Biotheoretica*, “The origin of species by means of mathematical modelling, N. Bessonov, N. Reinberg”, M. Banerjee and V. Volpert, 2018, 66(4), 333 - 344.
34. *Appl. Math.*, “Lotka-Volterra Type Predator-Prey Models: Comparison of Hidden and Explicit Resources with a Transmissible Disease in the Predator Species”, L. Assis, M. Banerjee, M. Cecconello, E. Venturino, 2018, 63(5), 569 - 600.
35. *Math. Biosci. Eng.*, “Influence of Allee effect in prey populations on the dynamics of two-prey-one-predator model”, Moitri Sen, Malay Banerjee , Yasuhiro Takeuchi 2018, 154, 883 - 904.
36. *Math. Model. Nat. Phenom.*, “Stabilizing effect of intra-specific competition on prey-predator dynamics with intra-guild predation”, T. Namba, Y. Takeuchi and M. Banerjee, 2018, 13(3), 29.
37. *Mathematica Slovaca*, “Euler classes of vector bundles over iterated suspensions of real projective spaces”, Aniruddha C. Naolekar , Ajay Singh Thakur, 2018 Volume 68, Issue No. 3, pp. 677-684.
38. *Trends in Mathematics*, “KO-groups of stunted complex and quaternionic projective spaces. In: Algebraic Topology and Related Topics”, Aniruddha, C. Naolekar, Ajay Singh Thakur,. 2019, (eds) Singh M., Song Y., Wu J., Birkhäuser. (Conference Proceedings)

39. *Computers and Mathematics with Applications*, “A Nyström-based finite element method on polygonal elements”, Akash Anand, Jeffrey S. Owall and Steffen Weißer, 2018, 75, 3971-3986.
40. *Journal of Computational Physics*, “Improved convergence of fast integral equation solvers for acoustic scattering by inhomogeneous penetrable media with discontinuous material interface”, Ambuj Pandey, Akash Anand, 2019, 376, 767-785.
41. *Collect. Math*, “Composition and translation operators on certain subspaces of the space of entire functions of bounded type”, M. Gupta & D. Baweja, 2018
42. *Eds. Hung Son Nguyen et al. (Springer)*, “Algebras from semiconcepts in rough set theory. In: LNAI 11103, Proc. International Joint Conference on Rough Sets (IJCRS 2018)”, Quy Nhon, Vietnam, Prosenjit Howlader, Mohua Banerjee, 2018, 440-454
43. *Eds. Hung Son Nguyen et al. (Springer)*, “Transformation semigroups for rough sets. In: LNAI 11103, Proc. International Joint Conference on Rough Sets (IJCRS 2018)”, Quy Nhon, Vietnam, Anuj Kumar More, Mohua Banerjee, 2018, 584-598, Awarded "best student paper" sponsored by Springer.
44. *Signal Processing*, "Estimating the order of multiple sinusoids model using exponentially embedded family rule: Large sample consistency", Shruti Agrawal, Sharmishtha Mitra and Amit Mitra, June 2018, Volume 147, pp. 54-59.
45. *Multidimensional Systems and Signal Processing*, "Order estimation of 2-dimensional complex superimposed exponential signal model using Exponentially Embedded Family (EEF) rule: Large sample consistency properties", Anupreet Porwal, Sharmishtha Mitra and Amit Mitra, July 2018, <https://doi.org/10.1007/s11045-018-0605-1>.
46. *To appear in Advances in Econometrics*, “On Quantile Estimator in Volatility Model with Nonnegative Error Density and Bayesian Perspective”, D Dutta., S. S. Dhar, A. Mitra, 2018.
47. *To appear in Sankhya A*, “A Test for Multivariate Location Parameter in Elliptical Model based on Forward Search Method” , C Chakraborty, S. S Dhar , 2018
48. *Scandinavian Journal of Statistics*, “Testing Independence of Covariates and Errors in Nonparametric Regression”, S. S. Dhar, W. Bergsma, A Dassios, 2018, 45 , 421–443.
49. *Frontiers in Psychology*, “ Manipulating the Alpha Level Cannot Cure Significance Testing” Trafimow, D., Amrhein, V. , Areshenko, C. N., Barrera-Causil, C., Beh, E. J., Bilgi, Y., Bono, R., Bradley, M. T., Briggs, W. M., Cepeda-Freyre, H. A., Chaigneau, S. E., Ciocca, D. R., Correa, J. C., Cousineau, D., de Boer, M. R., S. S. Dhar, Dolgov, I., Gmez-Benito, J., Grendar, M., Grice, J., Guerrero-

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50. *Communication in Statistics: Theory and Methods*, "Likelihood Ratio Tests in Logistic Regression for Separated Data", U Das, S. S. Dhar, V. Pradhan, 2018, 47, 4272–4285.
 51. *Anal. Math.*, "Examples of Fourier multipliers of the Sobolev space $W_{1,1}(\mathbb{R}^d)$.", Aline Bonami, Parasar Mohanty, 2018, volume 44, 325-334.
 52. *Math. Scand.*, "Multilinear square functions and multiple weights.", Loukas Grafakos, Parasar Mohanty, Saurabh Shrivastava, 2019, volume 124, 149-160.
 53. *Sankhya Ser. B*, "A new decision theoretic sampling plan for type-I and type-I hybrid censored samples from the exponential distribution" Deepak Prajapati, Sharmishtha Mitra and Debasis Kundu, August 2018, <https://doi.org/10.1007/s13571-018-0167-0>.
 54. *Communications in Statistics - Simulation and Computation*, "A new decision theoretic sampling plan for exponential distribution under Type-I censoring", Deepak Prajapati, Sharmishtha Mitra and Debasis Kundu, December 2018, <https://doi.org/10.1080/03610918.2018.1485942>.
 55. *Statistical Quality Technologies: Theory and Practice*, Eds: Yuhlong Lio, Hon Keung Tony Ng, Tzong - Ru Tsai and Ding - Geng Chen, Springer, "Decision theoretic sampling plans for one-parameter exponential distribution under Type I and Type I hybrid censoring schemes", Deepak Prajapati, Sharmishtha Mitra and Debasis Kundu, 2018, (to appear).
 56. *Naval Res. Logist.*, "Relative aging of $(n-k+1)$ -out-of- n -systems based on cumulative hazard and cumulative reversed hazard functions, Neeraj Misra, Jisha Francis, 2018, Vol 65, no. 6-7, 566–575.
 57. *Comm. Statist. Theory Methods*, "A unified approach to stochastic comparisons of multivariate mixture models", Neeraj Misra, Sameen Naqvi, 2018, vol 47, no. 19, 4724–4740.
 58. *Braz. J. Probab. Stat.*, "Some unified results on stochastic properties of residual lifetimes at random times" Neera Misra, Sameen Naqvi, 2018, vol 32, no. 2, 422–436.
 59. *Oper. Res. Lett.*, "Stochastic comparison of residual lifetime mixture models", Neeraj Misra & Sameen Naqvi, 2018, vol 46, no. 1, 122–127.

60. *Journal of Mathematical Physics*, "Subadditivity and additivity of the noncommutative Yang-Mills action functional", Satyajit Guin, 2018, no. 10, 103510, 27pp.
61. *International Journal of Geometric Methods in Modern Physics*, "Tensor product of supersymmetric $N=(1,1)$ spectral data", Satyajit Guin, 2018, no. 12, 1850207, 19pp.
62. *Proc. Indian Acad. Sci. Math. Sci.*, "Comparison between two differential graded algebras in noncommutative geometry", Partha Sarathi Chakraborty and Satyajit Guin, 2019, 129 (29), 20pp.
63. *Glasgow Mathematical Journal*, "Complex of Relatively Hyperbolic Groups" Abhijit Pal Suman Paul, 2018, Pg 1-16.

BOOK CHAPTERS

1. Modeling and Simulation Based Analysis in Reliability Engineering, Aniket Jain, Biswabrata Pradhan, D.Kundu, CRC Press: Taylor and Francis Group, Mangey Ram, 2018, Chapter-6,

CONFERENCE/ INVITED TALK

1. *Debasis Kundu*, Plenary Speaker at the Indian Society of Probability and Statistics Annual conference held at Coimbatore, India during January 3-5, 2018.
2. *Debasis Kundu*, P.V. Sukhatme endowed lecture at the annual meeting of the Indian Society of Probability and Statistics held at M.D. University, Rohtak on December 27-30, 2018.
3. Key Note Speaker at the RAMSA-2019 conference held at the Jiyajee Institute of Information Technology, Noida during January 17-19, 2019.
4. *Debasis Kundu*, Bivariate distributions with singular component", One of the main speakers at Statquest held at the University of Kolkata, March 14, 2018.
5. *Debasis Kundu*, Normal distribution: its use and its extensions", One of the main speakers at the National One Day Conference on the Applications of Mathematics in Biotechnology, held at the Ramanada College, Bishnupur, West Bengal, March 28, 2018.
6. *Debasis Kundu*, Random numbers; how to generate and their uses", One of the main speakers at the short term training programme on Mathematical

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Modelling and Statistical Techniques organized by The department of Mathematics, SLIET, Longowal, Punjab from 30th July - 3rd Aug., 2018.

7. *Debasis Kundu*, Reliability: a need of the day", One of the main speakers at the short term training programme on Mathematical Modelling and Statistical Techniques organized by The department of Mathematics, SLIET, Longowal, Punjab from 30th July - 3rd Aug., 2018.
8. *Debasis Kundu*, Statistical Signal Processing", One of the main speakers at the short term training programme on Mathematical Modelling and Statistical Techniques organized by The department of Mathematics, SLIET, Longowal, Punjab from 30th Jul- 3rd Aug., 2018.
9. *Debasis Kundu, Amit Mitra* International Conference on Computing, Power and Communication Technologies, "Chirp-like model and its parameters estimation", Rhythm Grover, International Conference on Computing, Power and Communication Technologies (GUCON), 2018, 1095-1100, IEEE, 2018/9/28.
10. *Amit Mitra* , Second National Seminar on Recent Trends in Statistical Sciences, "Order estimation of nonlinear signal processing models", Department of Statistics, University of Kerala, Trivandrum in conjunction with 40th Annual Conference of Kerala Statistical Association, Mar. 7 - 9, 2019.
11. *Amit Mitra*, Invited lecture "Challenges in statistical signal processing", Department of Statistics, Manipal Academy of Higher Education, Karnataka, Feb. 21, 2019.
12. *Sharmishtha Mitra*, Invited lecture in the Department of Statistics, Manipal Academy of Higher Education, Karnataka, Feb. 21 - 22, 2019.
13. *Sharmishtha Mitra*, Invited lecture and chaired session in the Second National Seminar on Recent Trends in Statistical Sciences organized by the Department of Statistics, University of Kerala, Trivandrum in conjunction with 40th Annual Conference of Kerala Statistical Association, Mar. 7 - 9, 2019
14. *Sachin Subhash Sharma*, Interactions of Quantum Affine algebras with Cluster Algebras, Current Algebras and Categorification, June 2, 2018 - June 8, 2018, Catholic University of America, Washington D.C .

PATENT

MATHEMATICS AND STATISTICS

US PATENT, “Convergent monotonic matrix factorization based entire frame image processing”, Yogesh K Soniwal, enkateshVK Subramanian, Amit Mitra - US Patent 9,940,868B2, 2018.