

Bibliography

- Abramovitz, M. and Stegun, I. A. (1965). *Handbook of mathematical functions*, General Publishing Company Ltd, Canada.
- Adler, R. J. (1990). *An introduction to continuity, extrema, and related topics for Gaussian processes*, Institute of Mathematical Sciences.
- Aitchison, J. (1955). On the distribution of a positive random variable having a discrete probability mass at the origin, *J. Amer. Stat. Assn.* Vol. 50, pg. 901-908.
- Akaike, H. (1974). A new look at the Statistical identification model, *IEEE Trans. Auto. Control*, 19, pg. 716-723.
- Akaike, H., (1977). "On entropy maximization principle". In: Krishnaiah, P.R. (Editor), *Applications of Statistics*, North-Holland, Amsterdam, pg. 27-41.
- Akkaya, A. K. and Tiku, M. L. (2005). Robust Estimation and hypothesis testing under short-tailedness and inliers, *Sociedad de Estadística e Investigación Operativa*, Vol 14, No. 1, pg. 129-150.
- Amutha, R. and Porchelvan, P. (2009). Estimation of surface runoff in Malattar Sub-watershed using SCS-CN method, *Journal Of the Indian Society of Remote sensing*, 37, pg. 291-304.
- Anderson, T. G. (1996). Return of volatility and trading volume: an information flow interpretation of stochastic volatility, *Jounrnal of finance*, 51, pg. 169-204.
- Arcidiacono, P. & Jones, J. B. (2003). Finite Mixture Distributions, Sequential Likelihood and the EM Algorithm, *Econometrica, Econometric Society*, vol.71(3), pg. 933-946.
- Barnett, V. and Lewis, T. (1994) *Outliers in Statistical Data*. John Wiley.

- Bebbington, M., Lai C. D. and Zitkis, R. (2007). Modeling human mortality using mixtures bathtub shaped failure distributions, *Journal of Theoretical Biology*, Vol.245, pg. 528-538.
- Bendre, S. M. and Kale, B. K. (1987). Masking effect on test for outliers in normal samples, *Biometrika*, 74(4), pg. 891-896.
- Bickel, P. J. and Doksum, K. (1969). Tests for monotone failure based on normalized spacings, *Annals of Mathematical Statistics*, 40, pg. 1216-1235.
- Block, H. W., Li, Y. and Savits, T. H. (2003). Initial and final behavior of the failure rate functions for mixtures and systems, *Journal of Applied Probability*, Vol.40, pg. 721-740.
- Böhning, D. (1999). The lower bound method in probit regression, *Computational Statistics and Data Analysis*, 30, pg. 13–17.
- Box, G. E. P. (1980). Sampling and Bayesian inference in scientific modelling and robustness, *Journal of the Royal Statistical Society, A*, Vol.143, pg. 383–430.
- Bowman, K. O. Shenton, C. R. (1988). *Properties of estimators for Gamma Distributions*, Marcel Dekker. Inc. New York.
- Chaturvedi, A and Sharma, V. (2008). Bayesian life test planning for a family of lifetime distributions: some approximate solutions. *Journal of Probability and Statistical Science*: Accepted for Publication.
- Chen, J. (1998). Penalized likelihood ratio test for finite mixture models with multinomial observations. *Canadian Journal of Statistics*, 26, pg. 583-599.
- Chen, J. and Li, P. (2009). Hypothesis test for normal mixture models: The EM approach, *Annals of Statistics*, Vol. 37, No. 5A, pg. 2523-2542.

- Chen, J. and Kalbfleisch, J. D. (2005). Modified likelihood ratio test in finite mixture models with a structural parameter, *Journal of Statistical Planning and Inference*, 129, pg. 93-107.
- Chen, H. and Chen, J. (2001). Large sample distribution of the likelihood ratio test for normal mixtures. *Statistical Probability Letters*, 52, pg. 125-133.
- Chen, R. and Liu, J. S. (2002). Mixture Kalman filters, *Journal of the Royal Statistical Society Series B (Statistical Methodology)*, Vol 62, Issue 3, pg. 493-508.
- Chernoff, H. and Lander, E. (2009). Asymptotic distribution of the likelihood ratio test that a mixture of two binomials is a single binomial, *Journal of Statistical Planning and inference*, 43, pg. 19-40.
- Corduneanu, A. and Christopher, M. B. (2001). Variational Bayesian Model Selection for Mixture Distributions, *Artificial Intelligence and Statistics*, pg. 27-34.
- Cramer, H. (1966). On stochastic processes whose trajectories have no discontinuities of second type, *Annals of Mathematics*, IV, 71, pg. 85-92.
- Dacunha, C. D. and Gassiat, E. (1999). Testing the order of a model using locally conic parametrization : population mixtures and stationary ARMA processes, *Annals of Statistics*, Vol. 27, No. 4, pg. 1178-1209.
- Dempster, A. P., Laird, N. M. and Rubin, D. B. (1977). Maximum Likelihood from incomplete data via the EM Algorithm, *Journal of the Royal Statistical Society. Series B (Methodological)*, Vol 39, No.1, Pg. 1-38.
- Dick, N. P. & Bowden, D. C. (1973). Maximum likelihood estimation for mixtures of two normal distributions. *Biometrics*, 29, pg. 781-790.
- Diebolt, J. and Robert, C. P. (1994). Estimation of finite mixture distributions through Bayesian sampling, *Journal of the Royal Statistical Society B Methodological*, Vol. 56, Issue 2, Pages: 363-375.

- Escobar, M. D. and West, M. (1998). *Computing nonparametric hierarchical models*, CiteseerX.
- Everitt, B. S. (1984). Maximum Likelihood Estimation of the Parameters in a Mixture of Two Univariate Normal Distributions; A Comparison of Different Algorithms, *Jour. Of the Royal Statis. Soc., D, (The Statistician)* Vol. 33, No. 2, pg. 205-215.
- Everitt, B. S. and Bullmore, E. T. (1999). Mixture Model Mapping of Brain Activation in functional Magnetic Resonance Images, *Human Brain Mapping* Vol 7, pg. 1-14.
- Fisher, M. J., Masi, D. M. B., Gross, D. and Shortle, J. F. (2005). One parameter Pareto, two parameter Pareto, Three parameter Pareto: Is there a modeling difference?, *The Telecommunications Review*, pg. 79-91.
- Garel, B. (2001). Likelihood Ratio Test for Univariate Gaussian Mixture, *Journal of Statistical Planning and Inference (JSPI)*, 96(2), pg. 325-350.
- Gare, B. & Goussanou, F. (2002). Removing the separation condition in a 1 against 3 components Gaussian mixture problem, *Classification, Clustering and Data Analysis*, K. Jajuga, A. Sokolowski and H-H. Bock Eds., Springer, Vol.6, pg. 61-73.
- Geisser, S. and Eddy, W. F. (1979). A predictive approach to model selection, *Journal of American Statistical Association*, 74, pg. 153-160.
- Ghosh, J. and Sen, P. (1985) On the asymptotic performance of the log likelihood ratio statistic for the mixture model and related results. In L. LeCam and R. A. Olshen (eds), *Proceedings of the Berkeley Conference in Honor of Jerzy Neyman and Jack Kiefer*, Vol. II, pg. 789-806.
- Hartigan, J. A. (1985). A failure of likelihood asymptotics for normal mixtures. In L. LeCam and R. A. Olshen (eds), *Proceedings of the Berkeley Conference in Honor of Jerzy Neyman and Jack Kiefer*, Vol. II, pg.. 807-810.

- Hawkins, D. (1980), *Identification of Outliers*, Chapman and Hall,.
- Hussaini, A. L. (2003), Bayesian predictive density of order statistics based on finite Mixture models, *Journal of Statistical Planning and inference*. Vol. 113, Issue 1, Pg. 15-24.
- Jayade, V. P. and Prasad, M. S. (1990). Estimation of parameters of mixed failure time distribution, *Comm. Statist.Theory and Methods*, 19(12), pg. 4667-4677.
- Jian-Ming Mo and Zong-Fang. (2008). Optimal Selection of Loss Severity Distribution Based on LDA, *Proceedings of the 2008 Fourth International Conference on Networked Computing and Advanced Information Management* , Vol.2, pg. 570-574.
- Johnson, N. L., Kotz S., Balakrishnan, N. (1970). *Continuous Univariate Distributions-I*, John Wiley and Sons, New York.
- Kale, B.K. (1999). *A first course on Parametric inference*, Narosa Publishers, New Delhi.
- Kale, B. K. and Muralidharan, K. (2000). Optimal estimating equations in mixture distributions accommodating instantaneous or early failures, *J.Indian . Statist. Assoc.*, 38, pg. 317-329.
- Kale, B. K. (2001). *Industrial Mathematics and Statistics*, Narosa Publishers, New Delhi.
- Kale, B. K. and Muralidharan, K. (2007). Masking effect of inliers, *J. Indian Statistical Association*, 45(1), pg. 33-49.
- Kale, B. K. and Muralidharan, K. (2007). Maximum Likelihood estimation in presence of inliers, *Journal of Indian Society for Probability and Statistics*, 10, pg. 65-80.

- Kleyle, R.M. and Dahiya, R.L. (1975). Estimation of parameters of mixed failure time distribution from censored data, *Comm. Statist. Theory and Methods*, 4(9), 873-882.
- Kullback, S. and Leibler, R. A. (1951). On the information and sufficiency, *Annals of Mathematical Statistics*, 22, pg. 79-86.
- Lai, C. D., Khoo, B. C., Muralidharan, K. and Xie, M. (2007). Weibull model allowing nearly instantaneous failures, *J. Applied Mathematics and Decision Sciences*, ID 90842, 11 pages.
- Lai Li-Hua , Wu Pei-Hsuan (2008). Estimating the threshold value and loss distribution: Rice damaged by typhoons in Taiwan, *African Journal of Agricultural Research*, Vol. 3 (12), pg. 818-824.
- Lee Wo-Chiang. (2009). Applying Generalized Pareto Distribution to the Risk Mgt. of Commerce Fire Insurance, Preliminary paper.
- Lehmann, E. L. and Romano, J. P. (1959). *Testing Statistical Hypotheses*, Springer Sciences.
- Lian, G. S. (2009). Parametric and nonparametric mixture density estimation with historical floods and palaeoflood information, *ESAIM: PS*, July, Vol. 13, pg. 301-327.
- Liang, K. Y. (1983). On information and ancilarity in the presence of a nuisance parameter, *Biometrika*, 70, pg. 607-612.
- Lin, T. , Lee, J. and Yen, S. (2007). Finite mixture modelling using the Skew normal distribution, *Statistica Sinica*, 17, pg. 909-927.
- Lindsay, B. G. (1995). *Mixture models: Theory, geometry, and applications*. Hayward: Institute of Mathematical Statistics.
- Liu, J. S. (2002). Mixture Kalman filters, *Journal of the Royal Statistical Society: Series B (Statistical Methodology)*, Vol 62, Issue 3, pg. 493–508.

- Lo, Y., Mendall, N. R. and Rubin D. B. (2001). Testing the number of components in normal mixture, *Biometrika*, 88, pg. 767-778.
- McLachlan, G. J. (1987). On bootstrapping the likelihood ratio test statistics for the number of components in a normal mixture, *Applied Statistics*, 36, pg. 318-324.
- McLachlan, G. J. and Peel, D. (1998). Robust cluster analysis via mixtures of multivariate t-distributions, *In Lecture Notes in Computer Science Vol. 1451*, A. Amin, D. Dori, P. Pudil, and H. Freeman (Eds.). Berlin: Springer-Verlag, pg. 658 - 666.
- McLachlan, G. J. and Basford, K. E. (1988). *Mixture Models: Inference and Applications to Clustering*. New York: Marcel Dekker.
- McLachlan, G. J. and Krishnan, T. (1997). *The EM Algorithm and Extensions*. New York: Wiley.
- McLachlan, G. J. and Peel, D. (1996). An algorithm for unsupervised learning via normal mixture models, *In ISIS: Information, Statistics and Induction in Science*, D.L. Dowe, K.B. Korb, and J.J. Oliver (Eds.), pg. 354-363.
- McLachlan, G. J., Peel D., Adams, P., and Basford, K. E. (1995). An algorithm for assessing by resampling the P-value of the likelihood ratio test on the number of components in normal mixture models. *Research Report No. 31. Brisbane: Centre for Statistics, The University of Queensland*.
- Meeker, W. Q. and Escobar, L. A. (1998). *Statistical Methods for reliability data.*, John Wiley & Sons, New York.
- Muralidharan, K. (1999). Tests for the mixing proportion in the mixture of a degenerate rate and exponential distribution, *J. Indian Stat. Assn.*, Vol. 37, issue 2.
- Muralidharan, K. (2000). The UMVUE and Bayes estimate of reliability of mixed failure time distribution, *Comm.Statist- Simulations & computations*, 29(2), 603-619.

- Muralidharan, K. (2005). Estimation in presence of early failures, *Statistical Methods*, Vol. 7(2), 81-95.
- Muralidharan K. and Arti M. (2008). Analysis of instantaneous and early failures in Pareto distribution, *Journal of statistical theory and Applications*, Vol 7, pg. 187-204.
- Muralidharan K. and Arti M. (2011). A modified Pareto distribution, *Journal of the Indian Statistical Association*, To appear in Vol. 49, No.1.
- Muralidharan, K. and Kale, B.K. (2002). Modified Gamma distribution with Singularity at Zero, *Comm Statist- Simulations & computations*, 31(1), pg. 143-158.
- Muralidharan, K. and Kale, B. K. (2008). Inlier detection using Schawartz information criterion, *Journal. Reliability and Stat. Studies*, 1(1), pg. 1-5.
- Muralidharan, K. and Lathika, P. (2004). The concept of inliers, *Proceedings of the First Sino-International Symposium on Probability, Statistics and Quantitative Management.*, Taiwan, October, pg. 77-92.
- Muralidharan, K. and Lathika, P. (2006). Analysis of instantaneous and early failures in Weibull distribution, *Metrika*, Vol 64, No.3, pg. 305-316.
- Muralidharan, K. (2010). Inlier prone models: A review, *Probability Statistics Forum*, Vol. 3, pg. 38-51.
- O'Neill, M. E. (1978). Distributional Expansions for Canonical Correlations from Contingency Tables, *Journal of the Royal Statistical Society, Series B (Methodological)*, Vol 40, No. 3, pg. 303-312.
- Pearson, K. (1894). Contributions to the Mathematical Theory of Evolution *Philosophical Transactions of the Royal Society A*, 185, pg. 71-110.
- Peel, D. and Mmclachlan, G. (2000). Robust mixture modelling using the t distribution, *Statistics and Computing* 10, pg. 339-348.

- Richardson, S. and Green, P. J. (1997). On Bayesian Analysis of Mixtures with an Unknown Number of Components, *Journal of the Royal Statistical Society: Series B (Statistical Methodology)*, Vol 59, Issue 4, pg. 731-792.
- Rousseeuw, P. J. and Leroy, A. M. (1987). *Robust Regression and Outlier detection*, John Wiley and Sons Ltd.
- Schwarz, G. E. (1978). Estimating the dimension of a model, *Annals of Statistics*, 6 (2), pg. 461-464.
- Singh, A. K. (2007). *Some contribution uniformly minimum unbiased estimations in exponential and irregular families of distributions*, P.hd thesis awarded by S.P.University, Vidyanagar.
- Srivastava, M. S. and Worsley, K. J.(1986). Likelihood Ratio tests for a change in the multivariate normal mean, *Journal of the American Statistical Association*, 81, pg. 199-204.
- Stephens, M. (2000). Dealing with label-switching in mixture models, *Journal of the Royal Statistical Society, Series B*, 62, pg. 795-809.
- Sun, J. (1993). Tail Probabilities of the Maxima of Gaussian Random Fields, *The Annals of Probability*, Vol. 21, pg. 34-71.
- Tan, W.Y. and Chang, W.C. (1972). Convolution approach to the genetic analysis of quantitative characters of self-fertilized population, *Biometrics*, 28: pg. 1073-1090 .
- Titterington, D. M., Smith, A., Makov, U. E. (1985). *Statistical Analysis of finite mixture distribution*, John Wiley and Sons.
- Vannman, K. (1991). Comparing samples from nonstandard mixtures of distributions with Applications to quality comparison of wood. Research report 1991:2 submitted to *Division of Quality Technology*, Lulea University, Lulea, Swedon.

Vannman, K. (1995). On the distribution of the estimated mean from the nonstandard Mixtures Of distribution, *Comm. Statist. – Theory and Methods*, 24(6), pg. 1569-1584.