

# Curriculum Vitae

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## Personal information

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## Education

- Ph.D. in Inferential Statistics, 2011  
Ferdowsi University of Mashhad, Iran
- M.Sc. in Mathematical Statistics, 2007  
Ferdowsi University of Mashhad, Iran
- B.Sc. in Statistics, 2005  
Ferdowsi University of Mashhad, Iran

## Articles

### A) Published in journals

1. Mahdizadeh, M., and Zamanzade, E. (2022). CDF estimation in multistage pair ranked set sampling. *Hacettepe Journal of Mathematics and Statistics* (doi:0.15672/hujms.1031349)
2. Mahdizadeh, M., and Zamanzade, E. (2021). New insights on goodness-of-fit tests for ranked set samples. *Statistical Papers* (doi: 10.1007/s00362-021-01284-7)
3. Mahdizadeh, M., and Zamanzade, E. (2022). On estimating the area under the ROC curve in ranked set sampling. *Statistical Methods in Medical Research* 31, 1500-1514.
4. Mahdizadeh, M., and Bolbolian, M. (2022). Dynamic reliability modeling with medical applications. *REVSTAT* 20, 15-32.
5. Mahdizadeh, M., and Zamanzade, E. (2022). On interval estimation of the population mean in ranked set sampling. *Communications in Statistics: Simulation and Computation* 51, 2747-2768.
6. Mahdizadeh, M., and Zamanzade, E. (2022). Using a rank-based design in estimating prevalence of breast cancer. *Soft Computing* 26, 3161-3170.
7. Mahdizadeh, M., and Zamanzade, E. (2021). Smooth estimation of the area under the ROC curve in multistage ranked set sampling. *Statistical Papers* 62, 1753-1776.
8. Mahdizadeh, M., and Zamanzade, E. (2021). New estimator for the variances of strata in ranked set sampling. *Soft Computing* 25, 8007-8013.
9. Mahdizadeh, M., and Zamanzade, E. (2020). Estimating asymptotic variance of M-estimators in ranked set sampling. *Computational Statistics* 35, 1785-1803.
10. Zamanzade, E., Mahdizadeh, M., and Samawi, H. (2020). Efficient estimation of cumulative distribution function using moving extreme ranked set sampling with application to reliability. *AStA Advances in Statistical Analysis* 104, 485-502.

11. Mahdizadeh, M., and Zamanzade, E. (2020). Estimation of a symmetric distribution function in multistage ranked set sampling. *Statistical Papers* 61, 851-867.
12. Mahdizadeh, M. (2020). New indices of sample informational energy with application to testing uniformity. *Afrika Matematika* 31, 273-295.
13. Zamanzade, E., and Mahdizadeh, M. (2020). Using ranked set sampling with extreme ranks in estimating the population proportion. *Statistical Methods in Medical Research* 29, 165-177.
14. Mahdizadeh, M., and Zamanzade, E. (2019). Confidence intervals for quantiles in ranked set sampling. *Iranian Journal of Science and Technology, Transactions A: Science* 43, 3017-3028.
15. Mahdizadeh, M., and Zamanzade, E. (2019). Goodness-of-fit tests for the Cauchy distribution with application to financial modeling. *Journal of King Saud University - Science* 31, 1167-1174.
16. Mahdizadeh, M., and Zamanzade, E. (2019). Dynamic reliability estimation in a rank-based design. *Probability and Mathematical Statistics* 39, 1-18.
17. Tamandi, M., Jamalizadeh, A., and Mahdizadeh, M. (2019). A generalized Birnbaum-Saunders distribution with application to the air pollution data. *Electronic Journal of Applied Statistical Analysis* 12, 26-43.
18. Mahdizadeh, M., and Zamanzade, E. (2019). Efficient body fat estimation using multistage pair ranked set sampling. *Statistical Methods in Medical Research* 28, 223-234.
19. Mahdizadeh, M., and Zamanzade, E. (2018). Estimation of dynamic reliability for dependent stress and strength based on ranked set sampling. *Journal of Advanced Mathematical Modeling* 8, 54-73.
20. Mahdizadeh, M., and Zamanzade, E. (2018). Stratified pair ranked set sampling. *Communications in Statistics: Theory and Methods* 47, 5904-5915.
21. Mahdizadeh, M., and Zamanzade, E. (2018). Efficient reliability estimation in two-parameter exponential distributions. *Filomat* 32, 1455-1463.
22. Mahdizadeh, M., and Zamanzade, E. (2018). A new reliability measure in ranked set sampling. *Statistical Papers* 59, 861-891.
23. Mahdizadeh, M., and Zamanzade, E. (2018). Smooth estimation of a reliability function in ranked set sampling. *Statistics* 52, 750-768.
24. Mahdizadeh, M., and Zamanzade, E. (2018). Interval estimation of  $P(X<Y)$  in ranked set sampling. *Computational Statistics* 33, 1325-1348.
25. Zamanzade, E., and Mahdizadeh, M. (2018). Distribution function estimation using concomitant-based ranked set sampling. *Hacettepe Journal of Mathematics and Statistics* 47, 755-761.
26. Mahdizadeh, M. (2018). On estimating a stress-strength type reliability. *Hacettepe Journal of Mathematics and Statistics* 47, 243-253.
27. Mahdizadeh, M. (2018). Testing normality based on sample information content. *International Journal of Mathematics and Statistics* 19, 1-18.
28. Zamanzade, E., and Mahdizadeh, M. (2018). Estimating the population proportion in pair ranked set sampling with application to air quality monitoring. *Journal of Applied Statistics* 45, 426-437.

29. Mahdizadeh, M. (2017). Test of fit for the Rayleigh distribution in ranked set sampling. *Journal of Statistics & Management Systems* 20, 901-915.
30. Amini, M., and Mahdizadeh, M. (2017). Nonparametric estimation of the entropy using a ranked set sample. *Communications in Statistics: Simulation and Computation* 46, 6719-6737.
31. Zamanzade, E., and Mahdizadeh, M. (2017). Goodness-of-fit tests for Rayleigh distribution based on Phi-divergence. *Colombian Journal of Statistics* 40, 279-290.
32. Zamanzade, E., and Mahdizadeh, M. (2017). Entropy estimation from ranked set samples with application to test of fit. *Colombian Journal of Statistics* 40, 223-241.
33. Mahdizadeh, M. (2017). On testing uniformity using an information-theoretic measure. *Communications in Statistics: Simulation and Computation* 46, 6173-6196.
34. Mahdizadeh, M., and Strzalkowska-Kominiak, E. (2017). Resampling based inference for a distribution function using censored ranked set samples. *Computational Statistics* 32, 1285-1308.
35. Mahdizadeh, M., and Zamanzade, E. (2017). A comprehensive study of lognormality tests. *Electronic Journal of Applied Statistical Analysis* 10, 349-373.
36. Mahdizadeh, M., and Zamanzade, E. (2017). Reliability estimation in multistage ranked set sampling. *REVSTAT* 15, 565-581.
37. Zamanzade, E., and Mahdizadeh, M. (2017). A more efficient proportion estimator in ranked set sampling. *Statistics and Probability Letters* 129, 28-33.
38. Mahdizadeh, M., and Zamanzade, E. (2017). New goodness-of-fit tests for the Cauchy distribution. *Journal of Applied Statistics* 44, 1106-1121.
39. MirMostafaei, S.M.T.K., Mahdizadeh, M., and Lemonte, A.J. (2017). The Marshall-Olkin extended generalized Rayleigh distribution: Properties and applications. *Communications in Statistics: Theory and Methods* 46, 653-671.
40. Zamanzade, E., and Mahdizadeh, M. (2016). Entropy estimation from judgment post stratified data. *Pakistan Journal of Statistics and Operation Research* 12, 625-637.
41. MirMostafaei, S.M.T.K., Mahdizadeh, M., and Aminzadeh, M. (2016). Bayesian inference for the Topp-Leone distribution based on lower k-record values. *Japan Journal of Industrial and Applied Mathematics* 33, 637-669.
42. Mahdizadeh, M., and Zamanzade, E. (2016). Kernel-based estimation of  $P(X>Y)$  in ranked set sampling. *SORT* 40, 243-266.
43. Mahdizadeh, M. (2016). Reconstruction of the missing order statistics in the Topp-Leone distribution. *International Journal of Statistics & Economics* 17, 12-19.
44. Mahdizadeh, M., and Tamandi, M. (2016). A new approach to parameter estimation in ranked set sampling. *International Journal of Statistics & Economics* 17, 40-49.
45. MirMostafaei, S.M.T.K., Mahdizadeh, M., and Nadarajah, S. (2015). The beta Lindley distribution. *Journal of Data Science* 13, 603-626.
46. Mahdizadeh, M. (2015). On entropy based test of exponentiality in ranked set sampling. *Communications in Statistics: Simulation and Computation* 44, 979-995.
47. Strzalkowska-Kominiak, E., and Mahdizadeh, M. (2014). On the Kaplan-Meier estimator based on ranked set samples. *Journal of Statistical Computation and Simulation* 84, 2577-2591.

48. Mahdizadeh, M., and Arghami, N.R. (2013). Improved entropy based test of uniformity using ranked set samples. *SORT* 37, 3-18.
49. Mahdizadeh, M. (2013). Entropy based test of normality for ranked set samples. *International Journal of Statistics & Economics* 11, 61-72.
50. Mahdizadeh, M. (2012). On the use of ranked set samples in entropy based test of fit for the Laplace distribution. *Colombian Journal of Statistics* 35, 443-455.
51. Mahdizadeh, M., and Arghami, N.R. (2012). Quantile estimation using ranked set samples from a population with known mean. *Communications in Statistics: Simulation and Computation* 41, 1872-1881.
52. Mahdizadeh, M., and Arghami, N.R. (2010). Efficiency of ranked set sampling in entropy estimation and goodness-of-fit testing for the inverse Gaussian law. *Journal of Statistical Computation and Simulation* 80, 761-774.

## **B) Published in seminars/conferences**

1. Mahdizadeh, M., and Zamanzade, E. (2020). On asymptotic intervals for the reliability parameter. *Proceedings of the 15th Iranian Statistical Conference* (pp. ?). Yazd University, Iran.
2. Mahdizadeh, M., and Zamanzade, E. (2020). A smooth reliability estimator in ranked set sampling. *Bernoulli-IMS One World Symposium 2020*.
3. Mahdizadeh, M., and Zamanzade, E. (2019). Fitting lognormal distribution to actuarial data. *Proceedings of y-BIS 2019 Conference: Recent Advances in Data Science and Business Analytics* (p. 68). Mimar Sinan Fine Arts University, Turkey.
4. Mahdizadeh, M., and Zamanzade, E. (2019). On asymptotic properties of a nonparametric reliability estimator. *Proceedings of the 12th Seminar on probability and Stochastic Processes* (p. 31). Semnan University, Iran.
5. Mahdizadeh, M. (2019). A note on pair ranked set sampling. *Proceedings of the 50th Annual Iranian Mathematics Conference* (pp. 26-29). Shiraz University, Iran.
6. Mehravar, F., and Mahdizadeh, M. (2018). Comparison of two nonparametric reliability estimators. *Proceedings of the 4th Seminar on Reliability Theory and its Applications* (pp. 104-114). Shiraz University, Iran.
7. Zamanzade, E., and Mahdizadeh, M. (2018). On entropy based test of fit using ranked set samples. *Proceedings of the 3rd Workshop on Information Measures and Their Applications* (pp. 1-5). Ferdowsi University of Mashhad, Iran.
8. Hamzehnezhad, S., Mahdizadeh, M., and Zamani, M. (2017). Comparison of two estimation methods in generalized exponential distribution. *Proceedings of Modern Methods in Insurance Pricing and Industrial Statistics Conference* (p. ?). Bu-Ali Sina University, Iran.
9. Mahdizadeh, M., and Zamanzade, E. (2017). Using ranked set sampling in reliability estimation: parametric versus nonparametric approach. *Proceedings of the 11th Seminar on probability and Stochastic Processes* (pp. 483-489). Imam Khomeini International University, Iran.
10. Taghvayitabar, B., and Mahdizadeh, M. (2017). Estimating parameters of the simple linear regression model under two variations of ranked set sampling. *Proceedings of the 11th*

Seminar on probability and Stochastic Processes (pp. 240-250). Imam Khomeini International University, Iran.

11. Mahdizadeh, M. (2017). Bayesian inference for doubly censored data from generalized half-logistic distribution. Proceedings of the 48th Annual Iranian Mathematics Conference (pp. ??). Bu-Ali Sina University, Iran.

12. Khosrojerdi, I., and Mahdizadeh, M. (2017). Statistical quality control in ranked set sampling. Proceedings of the 48th Annual Iranian Mathematics Conference (pp. ??). Bu-Ali Sina University, Iran.

13. MirMostafaei, S.M.T.K., and Mahdizadeh, M. (2017). Bayesian estimation for the STH distribution based on type II censored data. Proceedings of the 3rd Seminar on Reliability Theory and its Applications (pp. 217-221). Ferdowsi University of Mashhad, Iran.

14. Mahdizadeh, M. (2017). Assessing effect of ranking quality in parametric reliability estimation based on ranked set samples. Proceedings of the 3rd Seminar on Reliability Theory and its Applications (pp. 181-188). Ferdowsi University of Mashhad, Iran.

15. Rahimi Dehcheraghi, O., and Mahdizadeh, M. (2017). Nonparametric estimation of stress-strength probability in ranked set sampling. Proceedings of the 10th Statistics Conference of PNU (pp. 1056-1063). PNU of Shiraz, Iran.

16. Mahdizadeh, M., and Zamanzade, E. (2016). Estimating exponential mean using unbalanced ranked set samples. Proceedings of the 47th Annual Iranian Mathematics Conference (pp. 55-58). Kharazmi University, Iran.

17. Mahdizadeh, M. (2015). A note on Bayesian inference for the Topp-Leone distribution. Proceedings of the 10th Seminar on probability and Stochastic Processes (pp. 276-282). Yazd University, Iran.

18. Mahdizadeh, M. (2014). On confidence interval for the difference of two population proportions. Proceedings of the 45th Annual Iranian Mathematics Conference (p. 85). Semnan University, Iran.

19. Mahdizadeh, M. (2010). A comparative study on tests concerning a parameter vector. Proceedings of the 10th Iranian Statistical Conference (pp. 252-256). University of Tabriz, Iran.

20. Mahdizadeh, M. (2008). Upper confidence bound for Kullback-Leibler distance. Proceedings of the 9th Iranian Statistical Conference (pp. 340-346). University of Isfahan, Iran.

### **Teaching experience**

- Undergraduate Course: Basics of Probability, Bayesian Statistics, English for Students of Statistics, Mathematical Statistics I & II, Nonparametric Statistics, Probability I & II, Probability and Statistics for Engineers, Regression Analysis I, Sequential Methods, Statistical Methods, Statistical Quality Control, Statistical Softwares, Time series Analysis I
- Graduate Course: Statistical Inference I & II, Topics in Modern Statistics