

Curriculum Vitae

Personal Information

Mohammad Moradi, PhD
Associate Professor of Statistics
Department of Statistics, Razi University

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Google Scholar Profile: <https://scholar.google.com/citations?user=d13LH8oAAAAJ>

Associate Professor of Statistics with over 15 years of experience in survey sampling, statistical learning, and spatial statistics. Author of 25 peer-reviewed journal articles, including publications in *Statistics in Medicine*, *Spatial Statistics*, *Journal of Statistical Planning and Inference*, *Australian & New Zealand Journal of Statistics*, and *Environmetrics*. Experienced in supervising graduate students, leading academic departments, and applying statistical methods in industry and agricultural analytics.

Research Metrics

- 25 Peer-Reviewed Journal Articles
- 23 Conference Papers and Presentations
- 2 Academic Books
- Google Scholar Citations: 120+ (June 2026)
- h-index: 5
- i10-index: 2
- PhD Students Supervised: 2
- Current PhD Students Supervised: 3
- Department Head (2 terms)
- 15+ years of university teaching experience

Selected Publications

- **Moradi, M., & Brown, J. A. (2024).** Mapping using an adaptive sampling design. *Spatial Statistics*.
- **Azimian, M., Moradi, M., Jozani, M. J., & Leslie, W. D. (2022).** Ranked set sampling in finite populations with bivariate responses. *Statistics in Medicine*.
- **Moradi, M., & Salehi, M. (2010).** An adaptive allocation sampling design for which the conventional stratified estimator is an appropriate estimator. *Journal of Statistical Planning and Inference*.
- **Brown, J. A., Salehi, M., Moradi, M., et al. (2012).** Adaptive survey designs for sampling rare and clustered populations. *Mathematics and Computers in Simulation*.

Education

- Visiting Researcher, Qatar University, Qatar (2014)

- PhD in Applied Statistics (Sampling)

Isfahan University of Technology, Iran

2005–2009

Supervisor:

Professor Mohammad Salehi

Thesis:

Adaptive Allocation in Stratified Sampling

- M.Sc. in Applied Statistics (Society and Economic Statistics)

Supervisor:

Professor Hamidreza Navabpour

Thesis:

Data quality management.

- B.Sc. in Statistics

Razi University, Kermanshah, Iran. 1998-2001.

Awards and Grants

- Ranked 2nd in the National M.Sc. Statistics Entrance Examination (Iran), 2001.
- Received scholarship from Razi University (2006–2009).

Research Interests

- Survey Sampling
- Adaptive Sampling Designs
- Spatial Statistics
- Data Mining, Statistical Learning and Machine Learning
- Statistical Quality Control
- Finite Population Inference

Programming & Analytical Tools

- R (Advanced)
- Python (Pandas, NumPy, Scikit-learn)
- SQL
- SPSS
- Excel
- Power BI
- Machine Learning
- Data Visualization

Academic Positions

- Associate Professor, Razi University (2020–Present)
- Assistant Professor, Razi University (2010–2020)

Academic Leadership

- Head, Department of Statistics (2014–2016; 2022–2024)

Industry Experience

- Director of Statistics and Quality Control, Kavay Industrial Cattle Breeding (2020–Present)

Professional Service

Journal Referee

- Environmental and Ecological Statistics
- Communications in Statistics – Simulation and Computation
- Iranian Journal of Science and Technology, Transactions A: Science

Completed more than 20 peer reviews for international journals and conferences.

Conference Leadership

- **Session Chair, Sampling Session**, 18th International Conference on Statistics of Iran, K. N. Toosi University of Technology, Tehran, Iran, 29–31 August 2026.

Previous Professional Positions

1. Contract employee
Sanjesh Organization. Tehran. 2003
2. Member of ‘Committee of data quality management’
Iranian Statistical Center, Tehran. 2004
3. Lecturer
University of Kurdistan, Sanandaj. 2004–2005
4. Faculty member
Azad University of Sanandaj. 2004–2005
5. Contract employee
Management and Planning Organization in Kurdistan province. 2004
6. Lecturer
Payam noor Universities of Bukan, Saqez, and Sanandaj. 2003–2005

Publications

Papers in Journals

1. **Moradi, M.** & Kasani, E. (2024). Optimum stratification using decision tree. *Mathematical Researches*, 10(2), 51–65. (In Farsi).
2. **Moradi, M.** & Brown, J. A. (2024). Mapping using an adaptive sampling design. *Spatial Statistics*, 60, 100820. <https://doi.org/10.1016/j.spasta.2024.100820>

3. Veisipour, H., **Moradi, M.**, & Brown, J. A. (2024). Variance estimation in spatially balanced sampling. *Iranian Journal of Science*, 48(11), 1–19. <https://doi.org/10.1007/s40995-024-01617-9>
4. Azimian, M., **Moradi, M.**, Jozani, M. J., & Leslie, W. D. (2022). Ranked set sampling in finite populations with bivariate responses: An application to an osteoporosis study. *Statistics in Medicine*, 41(8), 1397–1420.
5. Amini, R., Shakiba, S., Afrakhteh, M., Tajrishi, M. P., & **Moradi, M.** (2022). Comparison of antenatal maternal mental representations between depressed and non-depressed pregnant mothers. *Iranian Journal of Psychiatry and Behavioral Sciences*, 16(4), 1–11.
6. Rezaei, A., Zaheri, F., **Moradi, M.**, & Shahoei, R. (2022). Respecting the pregnant mother and the factors related to their hospitalization in Besat Hospital in Sanandaj (2019). *Journal of Education and Ethics in Nursing*, 11(1–2), 19–26.
7. Veisipour, H., **Moradi, M.**, & Brown, J. A. (2020). Balanced acceptance sampling+m: A balance between entropy and spatial balance. *Journal of Statistical Research of Iran*, 17, 1–18.
8. Almasi, I., Salehi, M., & **Moradi, M.** (2020). A new algorithm to impute the missing values in multivariate case. *Journal of the Iranian Statistical Society*, 19(2), 133–143.
9. **Moradi, M.** (2018). Using adaptive line-transect sampling in airborne geophysics studies. *Communications in Statistics—Simulation and Computation*, 48(3), 675–683. <https://doi.org/10.1080/03610918.2017.1395041>
10. Abi, N., **Moradi, M.**, Salehi, M., Brown, J. A., Al-Khayat, J. A., & Moltchanova, E. (2017). Application of balanced acceptance sampling to an intertidal survey. *Journal of Landscape Ecology*, 10(1), 96–107.
11. Salehi, M., **Moradi, M.**, Al-Khayat, J. A., Brown, J. A., & Yousif, A. E. M. (2015). Inverse adaptive cluster sampling with unequal selection probabilities: Case studies on crab holes and arsenic pollution. *Australian & New Zealand Journal of Statistics*, 57(2), 189–201. <https://doi.org/10.1111/anzs.12118>
12. Shahveisi, F., **Moradi, M.**, & Kamari, F. (2015). An alternative approach in evaluating rational speculative bubbles in stock exchange. *Research Journal of Finance and Accounting*, 6(1), 1–9.
13. **Moradi, M.**, Brown, J. A., & Guo, W. (2014). Adaptive cluster sampling in two-stage sampling. *Australian & New Zealand Journal of Statistics*, 56(4), 347–357. <https://doi.org/10.1111/anzs.12094>
14. Kamari, F., Shahveisi, F., & **Moradi, M.** (2013). Studying the relation of indices and duration dependence test in Tehran Stock Exchange. *International Research Journal of Applied and Basic Sciences*, 4(9), 2494–2500.
15. **Moradi, M.**, & Brown, J. A. (2013). General fuzzy inverse sampling. *International Journal of Agricultural and Statistical Sciences*, 9(2), 595–602.
16. Baghban, S., **Moradi, M.**, & Jabbari, H. K. (2013). Ranking and selection procedures for Gini index. *Bulletin of Mathematical Sciences & Applications*, 2(1), 1–16.
17. **Moradi, M.**, & Brown, J. A. (2012). An approximated method to calculate complicated expectations. *Journal of Statistics Applications & Probability*, 2(2), 165–170.
18. Brown, J. A., Salehi, M., **Moradi, M.**, Panahbehagh, B., & Smith, D. R. (2012). Adaptive survey designs for sampling rare and clustered populations. *Mathematics and Computers in Simulation*, 93, 108–116.
19. **Moradi, M.**, Brown, J. A., & Hodge, M. (2012). Minimal sufficiency in rare populations. *Journal of Mathematics and System Science*, 2, 281–285.
20. Fatahi, S. H., **Moradi, M.**, & Abbaspour, S. (2012). The effect of economy openness on inflation using quantile regression. *Economic Development Research*, 81–108. (In Persian).
21. **Moradi, M.**, Salehi, M., Brown, J. A., & Karimi, N. (2011). Regression estimator under inverse sampling to estimate arsenic contamination. *Environmetrics*, 22, 894–900.

22. **Moradi, M.** & Salehi, M. (2010). An adaptive allocation sampling design for which the conventional stratified estimator is an appropriate estimator. *Journal of Statistical Planning and Inference*, 140, 1030–1037.
23. Salehi, M., **Moradi, M.**, Brown, J. A., Bell, G., & Smith, D. (2010). Efficient estimators for adaptive stratified sequential sampling. *Journal of Statistical Computation and Simulation*, 80(10), 1163–1179.
24. Brown, J. A., Salehi, M., **Moradi, M.**, Bell, G., & Smith, D. (2008). Adaptive two-stage sequential sampling. *Population Ecology*, 50, 239–245.
25. **Moradi, M.**, Salehi, M., & Levy, P. S. (2007). Using general inverse sampling design to avoid undefined estimator. *Journal of Probability and Statistical Science*, 5(2), 137–150.

Refereed Conference Papers (Published Proceedings)

1. **Moradi, M.**, Brown, J. A., & Karimi, N. (2011). An efficient and easy-to-carry-out sampling design in environmental studies. In *Proceedings of MODSIM 2011: 19th International Congress on Modelling and Simulation* (pp. 2085–2092). Perth, Australia.
2. Brown, J. A., Salehi, M., **Moradi, M.**, Panahbehagh, B., & Smith, D. R. (2011). Adaptive and unequal probability survey designs for environmental management. In *Proceedings of MODSIM 2011: 19th International Congress on Modelling and Simulation* (pp. 2071–2077). Perth, Australia.
3. **Moradi, M.** (2012). Estimating total wealth. In *Proceedings of the 1st International Conference on Econometric Methods and Applications*. Sanandaj, Iran.

Conference Presentations

1. **Moradi, M.**, & Kasani, E. (2026). *An Adaptive Hybrid Active-Passive Learning Strategy for Statistical Representativeness: A Case Study of Breast Cancer Diagnosis*. 18th Iranian Statistical Conference. K. N. Toosi University of Technology. 29-31 Aug.
2. Kasani, E., & **Moradi, M.** (2026). *The importance of sample selection criteria in active learning with application in osteoporosis screening*. K. N. Toosi University of Technology. 29-31 Aug.
3. Kasani, E., & **Moradi, M.** (2026). *A random forest uncertainty-based active learning framework for imbalanced web data*. 12th International Conference on Web Research (ICWR 2026), University of Science and Culture.
4. Kasani, E., & **Moradi, M.** (2024). *Spatio-temporal visualization of earthquake data and clustering using the DBSCAN method*. 4th National Conference on Data Mining in Earth Sciences, Arak University of Technology.
5. Veisipour, H., & **Moradi, M.** (2019). *A review of sampling designs constructed from the Halton sequence*. Third Seminar on Spatial Statistics and Its Applications, Zanzan University.
6. Azimian, M., & **Moradi, M.** (2019). *A review of ranked set sampling in spatial populations*. Third Seminar on Spatial Statistics and Its Applications, Zanzan University.
7. **Moradi, M.**, & Hajati, A. (2019). *Applying adaptive web sampling in social network studies*. 4th International Conference on Natural Sciences (ICNS 2019), Sanandaj, Iran.
8. Azimian, M., & **Moradi, M.** (2018). *Estimation of empirical distribution functions in design-based inference*. 14th Iranian Statistical Conference, Shahrood, Iran.
9. **Moradi, M.** (2018). *Optimal locationing based on three distance criteria*. 11th International Conference of the Iranian Association for Operations Research, Kermanshah, Iran.

10. Mohammadi, L., Izadi, M., & **Moradi, M.** (2014). *Confidence interval for the constant model parameter of the cosmos using the bootstrap method*. 12th Iranian Statistical Conference, Kermanshah, Iran.
11. Salehi, M., **Moradi, M.**, Al-Khayat, J. A., & Brown, J. A. (2014). *Inverse adaptive cluster sampling with unequal selection probabilities: Case studies on crab holes and arsenic pollution*. 12th Iranian Statistical Conference, Kermanshah, Iran.
12. Ahmadi, M. J., & **Moradi, M.** (2014). *Imperfect detectability in sampling with unequal selection probabilities*. 12th Iranian Statistical Conference, Kermanshah, Iran.
13. **Moradi, M.** (2012). *Contingency table analysis in complicated sampling designs*. 3rd Annual Conference of Razi University, Kermanshah, Iran.
14. **Moradi, M.**, Brown, J. A., & Hodge, M. (2010). *Minimal sufficiency in rare populations*. International Conference of Applied Statistics (AS2010), Slovenia.
15. **Moradi, M.**, & Salehi, M. (2010). *Modified regression estimators for rare populations*. 10th Iranian Statistical Conference, Tabriz, Iran.
16. **Moradi, M.** (2010). *Efficient sampling designs in biology*. 1st Annual Conference of Razi University, Kermanshah, Iran.
17. **Moradi, M.**, & Salehi, M. (2008). *Adaptive allocation under a model*. 9th Iranian Statistical Conference, Isfahan, Iran.
18. **Moradi, M.**, & Salehi, M. (2006). *Estimation of a ratio for a general inverse sampling design*. 8th Iranian Statistical Conference, Shiraz, Iran.

Books

- Moradi, M., & Jalilian, A. (2018). Statistical Computing with R.
- Mirzaghaderi, G., Moradi, M, and Fallah, A. (2011) An Introduction to Statistics & Probability, Sanandaj, University of Kurdistan.

Projects

1. Investigating the financial efficiency of sperms consumed in the agriculture and animal husbandry company of Kavay Ravansar from 2016 to 2017.
2. "Sampling to measure the level of satisfaction of customers of Kermanshah Province Electricity Department" June 2016.
3. Inference in finite populations. Razi University. 2011 (Internal project)

Technical Expertise

- Machine Learning
- Deep Learning
- Survey Analytics
- Spatial Data Analysis
- Statistical Learning
- Random Forests
- Decision Trees
- KNN
- Quality Control Analytics
- Data Visualization

Undergraduate Teaching

- Probability and Statistics I & II
- Regression Analysis I & II
- Sampling Methods I & II
- Data Mining
- Database Management
- Statistical Quality Control
- Statistical Computing with R
- Multivariate analysis
- Fundamentals of Data Science.

Master's Courses

- Advanced data mining
- Sampling theory
- Special topics in statistics: including Resampling methods, EM and MCMC
- Applied multivariate analysis
- Statistical analysis
- Statistics for engineering

Doctoral Courses

- Advanced statistical methods
- Database Management
- Advanced data mining
- Advanced sampling theory

PhD Supervision

- Veisipour, H. (2014) Variance Estimation in Balanced Acceptance Sampling. Razi University.
- Azimian, M. (2016) Bivariate Ranked Set Sampling in Finite Populations. Razi University.

Current PhD Supervision

Principal Supervisor of three PhD students in Statistics, including two domestic students and one international student from Iraq.

MSc Supervision

1. Kasani, E. (2023) . Razi University. Predicting academic progress of Razi university students using data mining techniques. Razi University.
2. Lanjabpur, V. (2020) Sample Size Determination in Complex Surveys Sampling. Razi University.
3. Mahmudi, M. (2020) A Review of Bankruptcy Prediction Models. Razi University.
4. Hajati, A. (2019) Adaptive Web Sampling. Razi University.
5. Ahmadi, S. (2019) Optimal sampling in Kriging interpolation. Razi University.

6. Ghasemi, F. (2018) Efficient Sampling Design for Locating Hotspots. Razi University.
7. Nazari, P. D. (2018) Fuzzy estimators in survey sampling. Razi University.
8. Yasemi, S. (2017) Comparison of the Efficiency of Some Sampling Designs in Interpolation. Razi University.
9. Izadi, F. (2016) The sampling methods applied in two-dimensional populations. Razi University.
10. Mohammadi, L. (2014) Evaluation of statistical models in astronomy. Razi University.
11. Abolfathi, T. (2014) A comparison between used estimators in adaptive cluster sampling. Razi University.
12. Bathaei, N. (2013) Using ranked set sampling in rare populations. Razi University.
13. Ahmadi, M. J. (2013) Imperfect detectability in adaptive cluster sampling. Razi University.
14. Baghban, S. (2013) Ranking and Selecting Best Populations Using Gini Index. Razi University.
15. Rajabi, M. (2012) Using auxiliary variables to increase the efficiency of estimators. Razi University.

Professional Workshops

- Seven-Day Artificial Intelligence and Data Science Workshop/Event. 2025 Razi University.
- Application of statistics in biological research 2019 Razi University.
- Sample size determination in research. 2019. Razi University.
- Statistical analysis by SPSS and R. Kermanshah University of Technology. 2013.
- Quality management in statistical data, Statistical Research and Training Center, Tehran, 2004.
- Teaching of statistical software SPSS, Management and Planning Organization in Kurdistan province, 2004.

References available upon request.