CURRICULUM VITAE

Taban Baghfalaki

2018

ADDRESS

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RESEARCH INTERESTS

Joint modeling of longitudinal and time to event data

Longitudinal data analysis

Survival analysis

Missing data analysis

Skew-normal distribution

Bayesian analysis

Outlier detection

Gene expression

EDUCATION

2010 - 2014	Shahid Beheshti University, Ph.D. Major: Statistics Advisor: Mojtaba Ganjali, Ph.D.
2007 - 2010	Shahid Beheshti University, M.Sc. Major: Mathematical Statistics Advisor: Mojtaba Ganjali, Ph.D.
2003 - 2007	Razi University, B.Sc. Major: Statistics

ACADEMIC EMPLOYMENT

2015-now	**Assistant Professor,** Department of Statistics, Faculty of Mathematical Sciences, Tarbiat Modares University.
2009-2014	**Reaserch Assistant**, Department of Statistics, Faculty of Mathematical Sciences, Shahid Beheshti University.

SCHOLARSHIPS

2007 - 2009	Scholarship of the National Elite Foundation of Iran for M.Sc.
2010-2015	Scholarship of the National Elite Foundation of Iran for Ph. D.

HONORS AND AWARDS

2016	Winner of Dr. Behboodian Award 2016
2010	1st Class Honors in M.Sc. of Statistics in Shahid Beheshti University
2007	2nd Honors in Statistics Olympiad in 2007 in Iran
2007	2nd Honors in Statistics competition in 2007 in Iran
2007	3rd Honors in exam of M.Sc. in Iran
2007	3rd Class Honors in B.Sc. of Statistics in Razi University

PUBLICATIONS

1. **Baghfalaki, T.** (2018). Bayesian Sample Size Determination for Longitudinal Studies with Continuous Response Based on Different Scientific Questions of Interest, *Journal of Biopharmaceutical Statistics.. (Accepted).*

2. **Baghfalaki, T.** and Jalali Farahani, E., (2018). Reversible Jump MCMC to identify non-ignorable dropout mechanism in longitudinal data, *Communications in Statistics - Theory and Methods. (Accepted).*

3. Ghasemzadeh, S., Ganjali, M., & **Baghfalaki, T.** (2018). A Bayesian conditional model for bivariate mixed ordinal and skew continuous longitudinal responses using quantile regression, *Simulation and Computation. (Accepted).*

4. Fallah Mohsenkhani, Z., Mohammadzadeh, M., & **Baghfalaki, T.** (2018). Augmented mixed beta regression models with skew-normal independent distributions: Bayesian analysis of labor force data, *Simulation and Computation. (Accepted).*

5. **Baghfalaki T.** (2018). Bayesian sample size determination for longitudinal studies with continuous response. *Mathematical Researches*, 4 (1)

6. **Baghfalaki, T.**, Ganjali, M., & Berridge, D. (2018). Generalized estimating equations by considering additive terms for analyzing time-course gene sets data. *Journal of the Korean Statistical Society*.

7. Ghasemzadeh, S., Ganjali, M., & **Baghfalaki, T.** (2018). A Bayesian conditional model for bivariate mixed ordinal and skew continuous longitudinal responses using quantile regression. *Journal of Applied Statistics*, 1-24.

8. Pazhuheian, F., Abadi, A., Zayeri, F., **Baghfalaki, T.**, Amini, P., Laal, N., ... & Pazhuheian, F. (2018). Effect of training after discharge on re-admission and re-hospitalization of patients with heart failure (randomized single-blind clinical trial). *Journal of Paramedical Sciences*, *9*(1), 7-15.

9. Ghasemzadeh, S., Ganjali, M., & **Baghfalaki, T.** (2018). Bayesian quantile regression for analyzing ordinal longitudinal responses in the presence of non-ignorable missingness. *METRON*, 1-28.

10. **Baghfalaki, T.**, & Ganjali, M. (2018). A Transition Model For Analysis of Zero-Inflated Longitudinal Count Data Using Generalized Poisson Regression Model. *Revstat, Statistical Journal.*
11. Jalali Farahani, E., **Baghfalaki, T.** (2017). Multiple-Model Multiple Imputation for Longitudinal Count Data to Address Uncertainty in Missingness Mechanism. *Applications and Applied Mathematics: An International Journal (AAM*), 13 (1), 84-96.

12. Ganjali, M., **Baghfalaki, T.**, & Ghahrodi, Z. R. (2017). Transitional Ordinal Modeling. *Wiley StatsRef: Statistics Reference Online*. 1-13.

13. Aghdam, R., **Baghfalaki, T.**, Khosravi, P., & Ansari, E. S. (2017). The Ability of Different Imputation Methods to Preserve the Significant Genes and Pathways in Cancer. *Genomics, proteomics & bioinformatics*, 15 (6), 396-404

14. Fallah Mohsenkhani, Z., Mohammadzadeh, M., & **Baghfalaki, T.** (2017). Bayesian Analysis of Augmented Mixed Beta Models with Skew-Normal Random Effects. *Journal of Statistical Research of Iran JSRI*, *14*(1), 101-118.

15. Ganjali, M., **Baghfalaki, T.** and Mollaee, R. (2017). Some Bayesian Approaches for Identifying Differentially Expressed Genes for RNA-seq Data Based on 2×2 Contingency Tables. *Bioinformatics and Biocomputational Research*, **1**, 16-32.

16. **Baghfalaki, T.**, Ganjali, M. (2016). Robust Weighted Generalized Estimating Equations Based on Statistical Depth. *Communications in Statistics-Simulation and Computation.* **46(10)**, 8283-8305.

17. **Baghfalaki, T.**, Ganjali, M., & Verbeke, G. (2017). A shared parameter model of longitudinal measurements and survival time with heterogeneous random-effects distribution. *Journal of Applied Statistics*, *44*(15), 2813-2836.

18. **Baghfalaki, T.**, Ganjali, M., & Berridge, D. (2016). Missing Value Imputation for RNA-Sequencing Data Using Statistical Models: A Comparative Study. Journal of Statistical Theory and Applications, 15(3), 221-236.

19. Ganjali, M., Moradzadeh, N., & **Baghfalaki, T.** (2016). Bayesian testing of agreement criteria under order constraints. *Journal of the Korean Statistical Society*. **46**(1). 78–87.

*20. Sayyadi, H., Zayeri, F., Baghestani, A. R., **Baghfalaki, T.**, Afshari, A. T., Mohammadrahimi, M., ... & Makhdoomi, K. (2016). Assessing Risk Indicators of Allograft Survival of Renal Transplant: An Application of Joint Modeling of Longitudinal and Time-to-Event Analysis. Iranian Red Crescent Medical Journal, (Inpress).*

21. Moradzadeh, N., Ganjali, M., & **Baghfalaki, T.** (2017). Weighted kappa as a function of unweighted kappas. *Communications in Statistics-Simulation and Computation*, **46**(5), 3769-3780.

22. Ganjali, M., **Baghfalaki, T.**, & Berridge, D. (2015). Robust modeling of differential gene expression data using normal/independent distributions: a Bayesian approach. *PloS one*, *10*(4), e0123791.

23. Teimourian, M., **Baghfalaki, T.**, Ganjali, M., & Berridge, D. (2015). Joint modeling of mixed skewed continuous and ordinal longitudinal responses: a Bayesian approach. *Journal of Applied Statistics*, *42*(10), 2233-2256.

24. Ganjali, M., & **Baghfalaki, T.** (2015). A Copula Approach to Joint Modeling of Longitudinal Measurements and Survival Times Using Monte Carlo Expectation-Maximization with Application to AIDS Studies. *Journal of biopharmaceutical statistics*, *25*(5), 1077-1099.

25. Ainy, E., Soori, H., Ganjali, M., & **Baghfalaki, T.** (2015). Road traffic injury cost estimation by willingness to pay method. *Safety Promotion and Injury Prevention*, *2*(3), 215-225.

26. **Baghfalaki, T.**, Sefidi, S., & Ganjali, M. (2015). A Semi-parametric Approach for Analyzing Longitudinal Measurements with Non-ignorable Missingness Using Regression Spline. *Applications & Applied Mathematics*, *10*(1).

27. **Baghfalaki, T.**, & Ganjali, M. (2015). A BAYESIAN APPROACH FOR JOINT MODELING OF SKEW-NORMAL LONGITUDINAL MEASURE-MENTS AND TIME TO EVENT DATA. *REVSTAT–Statistical Journal*, *13*(2), 169-191.

28. Ghahroodi, Z. R., **Baghfalaki, T.**, & Ganjali, M. (2015). Outlier Detection and a Method of Adjustment for the Iranian Manufacturing Establishment Survey Data. *Applications & Applied Mathematics*, *10*(1).

29. Ainy, E., Soori, H., Ganjali, M., & **Baghfalaki, T.** (2015). Eliciting road traffic injuries cost among Iranian drivers' public vehicles using willingness to pay method. *International journal of critical illness and injury science*, *5*(2), 108.

30. Moradzadeh, R., Mansournia, M. A., **Baghfalaki, T.**, Ghiasvand, R., Noori-Daloii, M. R., & Holakouie-Naieni, K. (2014). Misclassification Adjustment of Family History of Breast Cancer in a Case-Control Study: a Bayesian Approach. *Asian Pacific journal of cancer prevention: APJCP*, *16*(18), 8221-8226.

31. Ganjali, M., & **Baghfalaki, T.** (2014). A Bayesian Shared Parameter Model for Analysing Longitudinal Skewed Responses with Nonignorable Dropout. *International Journal of Statistics in Medical Research*, *3*(2), 103.

32. Ganjali, M., **Baghfalaki, T.**, & Berridge, D. (2014). A Bayesian Analysis of Unobserved Heterogeneity for Unemployment Duration Data in the Presence of Interval Censoring. *International Econometric Review (IER)*, *6*(1), 24-41.

33. Ainy, E., Soori, H., Ganjali, M., Le, H., & **Baghfalaki, T.** (2014). Estimating cost of road traffic injuries in Iran using willingness to pay (WTP) method. *PLoS one*, *9*(12), e112721.

34. **Baghfalaki, T.**, Ganjali, M., & Berridge, D. (2014). Joint modeling of multivariate longitudinal mixed measurements and time to event data using a Bayesian approach. *Journal of Applied Statistics*, *41*(9), 1934-1955.

35. **Baghfalaki, T.**, Ganjali, M., & Hashemi, R. (2014). Bayesian joint modeling of longitudinal measurements and time-to-event data using robust distributions. *Journal of biopharmaceutical statistics*, *24*(4), 834-855.

36. Ganjali, M., **Baghfalaki, T.**, & Khazaei, M. (2013). A linear mixed model for analyzing longitudinal skew-normal responses with random dropout. *Journal of the Korean Statistical Society*, *42*(2), 149-160.

37. **Baghfalaki, T.**, Ganjali, M., & Berridge, D. (2013). Robust joint modeling of longitudinal measurements and time to event data using normal/independent distributions: A Bayesian approach. *Biometrical Journal*, *55*(6), 844-865.

38. **Baghfalaki, T.**, Ganjali, M., & Khounsiavash, M. (2012). A Non-Random Dropout Model for Analyzing Longitudinal Skew-Normal Response. *Journal of Iranian Statistical Society*, *11*(2), 101-129.

39. **Baghfalaki, T.**, & Ganjali, M. (2012). An ECM estimation approach for analyzing multivariate skew-normal data with dropout. *Communications in Statistics-Simulation and Computation*, *41*(10), 1970-1988.

40. Ganjali, M., & **Baghfalaki, T.** (2012). Bayesian analysis of unemployment duration data in presence of right and interval censoring. *JRSS*, *5*(1), 17-32.

41. **Baghfalaki, T.**, & Ganjali, M. (2011). An EM estimation approach for analyzing bivariate skew normal data with non-monotone missing values.*Communications in Statistics-Theory and Methods*, *40*(9), 1671-1686.

42. Khounsiavash, M., Ganjali, M., & **Baghfalaki, T.** (2011). A stochastic version of the EM algorithm to analyze multivariate skew-normal data with missing responses. *Applications and Applied Mathematics: An International Journal*,*6*(2), 412-427.

43. Khounsiavash, M., **Baghfalaki, T.**, & Ganjali, M. (2011). Empirical Bayes Estimation in Multiple Linear Regression with Multivariate Skew-Normal Distribution as Prior. *JOURNAL OF MATHEMATICAL EXTENSION*.

CONFERENCE PRESENTATIONS

TALKS

Baghfalaki, T., & Ganjali, M. (2016). A Transition Model for Analysis of Zero-inflated Longitudinal Data Using Generalized Poisson and Poisson Regression Models. The 12th Iranian Statistical Conference. Kerman, Iran.

Jalali Farahani, E. & **Baghfalaki, T.** (2016). The use of Multiple-Models and Nested Multiple Imputation for analyzing Longitudinal Count Data in the presence of missing values. The 12th Iranian Statistical Conference. Kerman, Iran.

Baghfalaki, T., & Ganjali, M. (2016). A Robust marginal model for analyzing Longitudinal Data with dropout Based on Statistical Depth. The first expertise seminar in nonparametric Statistics and its applications. Tehran, Iran.

Baghfalaki, T., & Ganjali, M. (2014). A Semi-Parametric Approach for Joint Modeling of Longitudinal Measurements and Lifetime Data. The 12th Iranian Statistical Conference, Kermanhah, Iran.

Ghahroodi, Z. R. & **Baghfalaki, T.** (2014). Evaluation of targeted subsidies on household consumption patterns and rankings of provinces based on a random effects simultaneous equations. The 12th Iranian Statistical Conference, Kermanhah, Iran.

Baghfalaki, T., Mohamadian, M. P., Sharif., E. (2014). Use of Mixture of Probabilistic PCA in Farsi Handwritten Word Recognition. The 12th Iranian Statistical Conference, Kermanhah, Iran.

Ghahroodi, Z. R., **Baghfalaki, T.**, & Ganjali, M. (2013). Investigating outliers detection methods for the Iranian manufacturing establishment survey data, ISI World Statistics Congresses, Hong Kong.

Baghfalaki, T., & Ganjali, M. (2012). Bayesian Joint Modeling of Longitudinal and Time to Event Data Using Some Robust Distributions. ICEOS-2012. Eastern Mediterranean university, Cyprus.

Ganjali, M., & **Baghfalaki, T.** (2012). Bayesian Analysis of Unobserved Heterogeneity Model For Unemployment Duration Data in the Presence of Interval Censoring. ICEOS-2012. Eastern Mediterranean university, Cyprus.

Ghahroodi, Z. R., **Baghfalaki, T.**, & Ganjali, M. (2012). Bayesian test of homogeneity association structures in three-way contingency tables, 8th World Congress in Probability and Statistics, Turkey.

Ganjali, M., & **Baghfalaki, T.** (2011). Bayesian Analysis of Unemployment Duration Data, APPLIED STATISTICS. Slovenian Research Agency (ARSS)

Baghfalaki, T., & Ganjali, M. (2010). Use of skew-normal distribution for analysig data with missing responses. 10th international conference of Iran, Iran.

WORKSHOP HOLDEN

BAYESIAN ANALYSIS USING WINBUGS
SRTC Training Workshop

BAYESIAN ANALYSIS USING OPENBUGS
Institute for Research in Fundamental Sciences (IPM)

STATISTICAL ANALYSIS WITH SPSS (ELEMENTARY)
SRTC Training Workshop

STATISTICAL ANALYSIS WITH SPSS (ADVANCED)
SRTC Training Workshop

STATISTICAL ANALYSIS WITH R PROGRAMMING
Department of Statistics of Alzahra University

STATISTICAL ANALYSIS WITH R PROGRAMMING
Modares Science & Technology Park

MISSING DATA ANALYSIS
SRTC Training Workshop

EDITING AND IMPUTATION METHODS IN STATISTICAL SURVEYS
SRTC Training Workshop

TEACHING EXPERIENCE

Statistical Inference I	**Tarbiat Modares University**, Department of Statistics
Statistical Inference II	**Tarbiat Modares University**, Department of Statistics

Economic and financial time series	**Tarbiat Modares University**, Department of Mathematics
Time series	**Alzahra University**, Department of Statistics
Regression analysis	**Alzahra University**, Department of Statistics
Multivariate Statistical analysis	**Alzahra University**, Department of Statistics
Design of Experiments	**Alzahra University**, Department of Statistics
Bayesian Statistics	**Alzahra University**, Department of Statistics
Statistical Quality Control	**Alzahra University**, Department of Statistics
Introduction to Statistics and Probability	**Alzahra University**
Introduction to Statistics and Probability	**Shahid Beheshti University**
Calculus	**Khajeh Nasir University of Technology**

TEACHING INTERESTS

Statistical Inference I
Statistical Inference II
Bayesian Analysis
Longitudinal Data Analysis
Linear and Non-linear Models
Time series