Hossein Haghbin, Ph.D.

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Academic Employment

2018 – Present   🔖 **Adj. Ass. Res. Statistics,** Artificial Intelligence and Data Mining Research Group, ICT Research Institute, Persian Gulf University.

2014 – Present   🔖 **Assistant Professor of Statistics,** Faculty of Intelligent Systems, Engineering and Data Sciences, Persian Gulf University.

Education

2009–2014   🔖 **Ph.D., Statistics, Shiraz University, Iran**
Thesis title: *Hilbertian Spatial Periodically Correlated First Order Autoregressive Models.*
GPA: 18.21/20

2004–2006   🔖 **M.Sc. Statistics, Shiraz University, Iran**
Thesis title: *Parametric and Non-Parametric Regression with missing values in the Response Variable.*
GPA: GPA: 17.25/20

Research Publications

Journal Articles

1   **Haghbin**, **H.**, & Maadooliat, M. (2023). A journey from univariate to multivariate functional time series: A comprehensive review. *Wiley Interdisciplinary Reviews: Computational Statistics*, e1640.

2   Kharrati-Kopaei, M., Shenavari, Z., & **Haghbin**, **H.** (2023). Combinit: An r package for combining interaction tests for unreplicated two-way tables. *R Journal*, *15*(1).

3   Trinka, J., **Haghbin**, **H.**, Lin Shang, H., & Maadooliat, M. (2023). Functional time series forecasting: Functional singular spectrum analysis approaches. *Stat*, *12*(1), e621.

4   Kharazmi, O., Alizadeh, M., Contreras-Reyes, J. E., & **Haghbin**, **H.** (2022). Arctan-based family of distributions: Properties, survival regression, bayesian analysis and applications. *Axioms*, *11*(8), 399.

5   Moradi, M., Rafiei, E., Rasti, S., & **Haghbin**, **H.** (2022). Coronary artery calcification—does it predict the cad-rads category? *Emergency Radiology*, 1–9.

6   Nemati, F., Westbury, C., Hollis, G., & **Haghbin**, **H.** (2022). The persian lexicon project: Minimized orthographic neighbourhood effects in a dense language. *Journal of Psycholinguistic Research*, 1–23.

7   Zamani, A., **Haghbin**, **H.**, Hashemi, M., & Hyndman, R. J. (2022). Seasonal functional autoregressive models. *Journal of Time Series Analysis*, *43*(2), 197–218.

8   **Haghbin**, **H.**, Najibi, S. M., Mahmoudvand, R., Trinka, J., & Maadooliat, M. (2021). Functional singular spectrum analysis. *Stat*, *10*(1), e330.

9   Alizadeh, M., Tahmasebi, S., & **Haghbin**, **H.** (2020). The exponentiated odd log-logistic family of distributions: Properties and applications. *Journal of Statistical Modelling: Theory and Applications*, *1*(1), 29–52.

10   Hashemi, M., Zamani, A., & **Haghbin**, **H.** (2019). Rates of convergence of autocorrelation estimates for periodically correlated autoregressive hilbertian processes. *Statistics*, *53*(2), 283–300.

11   Zamani, A., Hashemi, M., & **Haghbin**, **H.** (2019). Improved functional portmanteau tests. *Journal of Statistical Computation and Simulation*, *89*(8), 1423–1436.

12   Reti, T., Sharafdini, R., Dregelyi-Kiss, A., & **Haghbin**, **H.** (2018). Graph irregularity indices used as molecular descriptors in qspr studies. *Match (Mülheim an der Ruhr, Germany)*, *79*, 509–524.

13   **Haghbin**, **H.**, Ozel, G., Alizadeh, M., & Hamedani, G. (2017). A new generalized odd log-logistic family of distributions. *Communications in Statistics-Theory and Methods*, *46*(20), 9897–9920.

14   **Haghbin**, **H.**, Zamani, A., & Shishebor, Z. (2017). Inference on the asymptotic behavior of covariance operator of first-order periodically correlated autoregressive hilbertian processes. *Communications in Statistics-Theory and Methods*, *46*(2), 761–769.

15   **Haghbin**, **H.**, & Shishebor, Z. (2016). On infinite dimensional periodically correlated random fields: Spectrum and evolutionary spectra. *Statistics & Probability Letters*, *110*, 257–267.

16   **Haghbin**, **H.**, Mahmoudi, M. R., & Shishebor, Z. (2015). Large sample inference on the ratio of two independent binomial proportions. *Journal of Mathematical Extension*.

17   **Haghbin**, **H.**, Shishebor, Z., & Soltani, A. R. (2014). Hilbertian spatial periodically correlated first order autoregressive models. *Advances in Data Analysis and Classification*, *8*(3), 303–319.

18   **Haghbin**, **H.**, & Nematollahi, A. (2013). Likelihood-based inference in autoregressive models with scaled t-distributed innovations by means of em-based algorithms. *Communications in Statistics-Simulation and Computation*, *42*(10), 2239–2252.

19   Kazemi, M., **Haghbin**, **H.**, & Behboodian, J. (2011). Another generalization of the skew normal distribution. *World Appl Sci J*, *12*, 1034–1039.

Teaching Experience

2014–Present   **Instructor, Persian Gulf University**
Teaching:

- Functional data analysis
- Mathematical analysis
- Advanced probability
- Data mining
- Time series analysis
- Stochastic processes
- Computational Statistics

Skills

Languages	Strong reading, writing competencies for English.
Coding	R, Python, SQL, C++, LaTeX, …
Databases	MySQL, SQL, SQLite.
Web Dev	Html, css, JavaScript.
Misc.	R package developing, Academic research, teaching, training, consultation, LaTeX typesetting and publishing.

R Package Developing

Rfssa   🔖   R package for functional singular spectrum analysis (2020). Ver 2.0.2, `https://cran.r-project.org/web/packages/Rfssa`.

Rsfar   🔖   R package for seasonal functional autoregressive time series (2021). Ver 0.0.1. `https://cran.r-project.org/web/packages/Rsfar`.

ollg   🔖   R package for computes some measures of OLL-G family of distributions(2022). ver 0.0.1. `https://cran.r-project.org/web/packages/ollg/index.html`.

combinIT   🔖   R package for a combined interaction Test for unreplicated Two-Way Tables(2022). Ver 0.0.1. `https://cran.r-project.org/web/packages/combinIT/index.html`.