Hossein Haghbin, Ph.D.

✉ haghbinh@pgu.ac.ir   🐦 @haghbinh

🌐 http://research.pgu.ac.ir/~HHaghbin/en/

🔗 http://www.linkedin.com/in/hossin-haghbinh-a0047692

⌨ https://github.com/haghbinh

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.** (2025). Forecasting density function time series: A functional singular spectr10.3934/fods.2025018um analysis approach. *Journal of Statistical Sciences*, 1–20.

2. **Haghbin**, **H.**, Trinka, J., & Maadooliat, M. (2025). Rfssa: An r package for functional singular spectrum analysis. *The R Journal*, *16*, 82–98. 🔗 doi:10.32614/RJ-2024-019

3. **Haghbin**, **H.**, Zhao, Y., & Maadooliat, M. (2025). Regularized multivariate functional principal component analysis for data observed on different domains. *Foundation of Data Science*. 🔗 doi:10.3934/fods.2025018

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

5. 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).

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

7. 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.

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

9. 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.

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

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

12 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.

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

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

15 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.

16 **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.

17 **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.

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

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

20 **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.

21 **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.

22 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`.