Togo Jean Yves KIOYE

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kioye-jean-yves.github.io/jeanyveskioye/ Togo Jean Yves KIOYE

Education

PhD student in Statistics, UMRF, University of Clermont Auvergne (France) 12/2022 – today

- *Research topic:* variables selection in Poisson Log-Normal model (PLN)
- *Teaching:* factorial methods, regression models, times series and clustering
- *Interests:* sparse inference, dimension reduction methods and statistical learning, optimisation, variational inference, neural network, and applications of mathematics to biology, epidemiology, etc.

Master, University of Caen Normandy (France) 2020 – 2022

- Applied mathematics, statistics, and decision analysis

Bachelor, University of Caen Normandy (France) 2019 – 2020

- Mathematics and applied computer science for the humanities and social sciences

Bachelor, University Nazi Boni (Burkina Faso) 2014– 2018

- Statistics and computer science

Experiences

Master 2 Internship, University of Technology of Troyes (France) 04/2022– 09/2022

- Anomaly detection and research on a new random matrix-based approach for dimension reduction

Master 1 Internship, University of Caen Normandy (France) 04/2021– 07/2021

- research on a new alpha-skew hyperbolic secant distribution

Publications and main communications

Accepted Article

- **Kioye, T. J. Y.**, Kharouf, M., and Huynh, K. T. (2022). Random matrix-based approach for data reduction and sensor selection with application to degradation index construction. In 2022 6th International Conference on System Reliability and Safety (ICSRS), pages 279–285
- Korkmaz, M. Ç., Toibourani, E.-f., **Kioye, J. Y. T.**, and Chesneau, C. (2022). The alpha-skew hyperbolic secant distribution with applications to an astronomical dataset. Nicel Bilimler Dergisi, 4(1):70–84

Submitted Article

- **Kioye, T. J. Y.**, Grollemund, P.-M., Chauvet, J., Druilhet, P., Saint-Loubert-Bie, E., and Chassard, C. (2024). Sparse inference in poisson log-normal model by approximating the l0-norm. arXiv preprint arXiv:2403.17087

Works in progress

- **Kioye, T. J. Y.**, Grollemund, P.-M., Chauvet, J.
- **Kioye, T. J. Y.**, Grollemund, P.-M., Chauvet, J.

Main talks

- Team seminar, IMAG, Montpellier (France), May 2025
- Team seminar, I2M, Marseille (France), December 2024
- Forum of Young Mathematicians, Montpellier (France), November 2024
- Team seminar, MIAT, Toulouse (France), November 2024
- Team seminar, IMAG, Grenoble (France), October 2024
- Team seminar, MIA, Paris (France), September 2024
- Young Statisticians' Meetings, Porquerolles (France), April 2024
- 54th Days of Statistics (SFDS), Brussels (Belgium), July 2023

Projects

Agri-food data analysis 01/2022-03/2022

- Comparative study, clustering, modeling, PCA, MCA, random forest
- Tools Used: RStudio

Data warehouse construction 09/2021-01/2022

- Designing a relational schema, data warehouse construction, SQL queries, visualization.
- Tools Used: Talend, PostgreSQL

Temperature forecast for la Touques (river) 09/2021– 11/2021

- Methods for analysing temporal data, PCA, ICA
- Tools Used: RStudio

A synthesis on the use of big data in the prediction of economic indicators 10/2020– 12/2020

- Use of Google trends in monthly surveys and big data contribution to macroeconomic forecasts.

Technologies

Languages: R, Python, SAS language,SQL, Matlab

Technologies: Talend, Elasticsearch, PostgreSQL