

# Louise Alamichel

☎ +33 6 08 43 44 06

✉ [louise.alamichel@orange.fr](mailto:louise.alamichel@orange.fr)

📄 <https://alamichl.github.io/>

Presently **Post-doctoral researcher**, Bocconi University, *ERC grant (NEMESIS project)*, Milan.

Working with Daniele Durante

## Education

2021–2024 **Ph.D. in Applied Mathematics**, Inria Grenoble Rhône-Alpes & Université Grenoble Alpes, Grenoble.

Supervisors : Julyan Arbel and Guillaume Kon Kam King

*Bayesian nonparametric mixture models and clustering*, defended on September 17, 2024.

2019 – 2021 **Master's degree in Mathematics, Statistics and Machine Learning**, Université Paris-Saclay, Orsay.

2016 – 2019 **Bachelor's Degree in Computer Science and Mathematics**, Université Paris-Saclay, Orsay.

## Teaching

2023-2024 **STA301 Méthodes statistiques pour la Biologie**, UGA, L2 Biologie, Tutorials – Lecture.

2022-2023 **STA301 Méthodes statistiques pour la Biologie**, UGA, L2 Biologie, Tutorials – Lecture.

2022-2023 **PMS Principes et Méthodes Statistiques**, ENSIMAG, 1<sup>st</sup> year, Tutorials.

## Additional academic experience

February – **Research visit**, *Department of Statistical Science*, Duke University.

April 2024 Collaboration with Filippo Ascolani

April – July **Research internship**, Inria Grenoble Rhône-Alpes.

2021 *Asymptotic properties of Bayesian nonparametric mixture models.*

Under Julyan Arbel and Guillaume Kon Kam King supervision

May – July **Research project**, *IMO*, Université Paris-Saclay.

2020 *Comparison of LBM and SBM clustering models for a directed graph.*

Under Christine Keribin supervision

## Publications

2024+ L. Alamichel, J. Arbel, G. Kon Kam King and I. Prünster, *Species Sensitivity Distribution revisited : a Bayesian nonparametric approach*, Submitted.

- 2024 L. Alamichel, D. Bystrova, J. Arbel and G. Kon Kam King, *Bayesian mixture models (in)consistency for the number of clusters*, Scandinavian Journal of Statistics.
- 2023 C. Lawless, L. Alamichel, J. Arbel and G. Kon Kam King, *Clustering inconsistency for Pitman–Yor mixture models with a prior on the precision but fixed discount parameter*, in Fifth Symposium on Advances in Approximate Bayesian Inference.

## Conferences

- May, 2025 **Enriched zero-inflated Stochastic block model**, *BISP 14*, Milan, Invited talk.  
Upcoming
- Feb 4, 2025 **Seminar**, Dauphine.  
Upcoming
- Dec 14-16, 2024 **Species Sensitivity Distribution revisited : a Bayesian nonparametric approach**, *CMStatistics 2024*, Londres, Invited talk.
- July 2-7, 2024 **Bayesian mixture models (in)consistency for the number of clusters**, *ISBA 2024*, Venise, Poster.
- June 29-30, 2024 **Bayesian mixture models (in)consistency for the number of clusters**, *BAYSM 2024*, Venise, Poster.
- Dec 16-18, 2023 **Bayesian mixture models (in)consistency for the number of clusters**, *CMStatistics 2023*, Invited talk.
- Oct 30 - Nov 3, 2023 **On Bayesian mixture models (in)consistency for the number of clusters**, Bayes at CIRM, *Autumn school*, Poster presentation.
- July 23, 2023 **Clustering inconsistency for Pitman–Yor mixture models with a prior on the precision but fixed discount parameter**, Fifth Symposium on AABI, Proceedings and poster.
- June 19-23, 2023 **Bayesian mixture models (in)consistency for the number of clusters**, Approximation Methods in Bayesian Analysis, Poster presentation.
- Oct 24-29, 2022 **Bayesian mixture models (in)consistency for the number of clusters**, *BNP13*, Poster presentation.
- June 26 - July 1, 2022 **On the consistency of Bayesian nonparametric mixtures for the number of clusters**, *ISBA 2022*, Contributed talk.
- June 22-23, 2022 **Bayesian nonparametric mixtures inconsistency for the number of clusters**, *BAYSM 2022*, Poster presentation.
- June 13-17, 2022 **On the consistency of Bayesian nonparametric mixtures for the number of clusters**, *JdS 2022*, Contributed talk.

## Awards

- 2024 **Best poster award**, *ISBA 2024*.
- 2024 **Junior Travel Support**, \$300, *ISBA 2024*.

- 2023 **IDEX Mobility Project Grant**, 1990€.
- 2022 **Travel Award**, \$1000, BNP13.
- 2022 **Junior Travel Support**, \$500, ISBA 2022.
- 2022 **ISBA New Researcher Travel Award**, \$125, BAYSM 2022.

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## Skills

Computer R, Python, Julia, C++, Java, Matlab, SQL, Ocaml  
Language French (native), English (C1)