SÉBASTIEN COUBE-SISQUEILLE

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SUMMARY

I am a statistician working as a research scientist at INRAE, the French institute for agriculture, food, and environmental research. Really into Bayesian modeling, spatial models, and computational statistics, but also a curious person with a strong interest in health, ecology and social sciences.

EDUCATION

Lycée Lakanal, Sceaux, France 2012 - 2015
Prépa B/L mathematics, humanities and social sciences
ENSAE, Palaiseau, France 2015 - 2018
École d'ingénieur statistics and machine learning
UPPA, Anglet, France 2018 - 2021
PhD contract, Bayesian spatial statistics

PROFESSIONAL EXPERIENCE

Lycée Lakanal, Sceaux, France 2015 - 2017
Teaching (mathematics)
CEVA, Lenexa, United States of America June 2017 - September 2017
Internship, statistics for veterinary clinical trials
UPPA, Anglet, France 2018 - 2021
PhD contract, including teaching (mathematics, biostatistics)
BCAM, Bilbao, Spain 2022 - March 2024
Postdoc - modelling air pollution using space-time Nearest Neighbor Gaussian Processes
UPPA, Pau, France 2022 - 2024
Teaching (statistics, machine learning)
INRAE, Auzeville-Tolosane, France 2024 -
Research scientist (*chargé de recherche*)

SKILLS

Fields of interest	Bayesian statistics, computational statistics, spatial statistics, Gaussian processes, graphical models, hierarchical modeling
Programming & software	R (experienced), C++ (occasional), Python (occasional), LaTeX (experienced), Linux (comfortable), Git (basics)
Communication	English (highly fluent), Spanish (highly fluent), French (mother tongue)

RESEARCH

My thesis	*MCMC algorithms and hierarchical architectures for spatial modeling using Nearest Neighbor Gaussian Processes*
	Nonstationary Spatial Process Models with Spatially Varying Covariance Kernels (Published in *Journal of Computational and Graphical Statistics*, with Sudipto Banerjee and Benoît Liquet)
Articles	*Improving performances of MCMC for Nearest Neighbor Gaussian Process models with full data augmentation* (Published in *Computational Statistics and Data Analysis*, with Benoît Liquet)
	Sequential process to choose efficient sampling design based on partial prior information data and simulations (Published in *Spatial Statistics*, by Kermorvant et al, I just lent a hand there)
Communication	*Around Nonstationary Nearest Neighbor Gaussian Processes*: contributed sessions @ ISBA 2021, ISI 2021, Rencontres R Paris 2021 (in French), JSM 2021, RSS 2021, Spatial Ecology Workshop of the University of Sheffield 2023, and invited seminary @ Team BIOSP of INRAE Avignon, 2021 and Team MIAT of INRAE Toulouse, 2022, and a poster at ISBA 2024.
	Around multivariate, nonseparable space-time Nearest Neighbor Gaussian Process, invited seminary @ VaBaR team, Valencia, Spain, 2023, a contributed session @ Workshop on Bayesian modeling for Complex Correlated Data, Valencia, Spain, 2023, and a contributed session @ Rencontres R Avignon 2023 (in French).
Software	A R package for Nonstationary Nearest Neighbor Gaussian Processes available @ my Github page.
Diffusion	An extensive yet laid-back Vignette for Nonstationary Nearest Neighbor Gaussian Processes available @ my Github page.
Editorial	Reviewer for the *Journal of Statistical Software*.