Maxime Vono

Research Associated, Huawei

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https://mvono.github.io

Research interests

Bayesian inference, computational statistics, federated learning, generative modeling, optimisation, Monte Carlo methods, signal and image processing, statistical machine learning.

Selected publications

Maxime Vono, Nicolas Dobigeon, and Pierre Chainais (2021), *High-dimensional Gaussian sampling: A review and a unifying approach based on a stochastic proximal point algorithm*, SIAM Review (in press).

Vincent Plassier*, **Maxime Vono***, Alain Durmus* and Eric Moulines (2021), *DG-LMC: a turn-key and scalable synchronous distributed MCMC algorithm via Langevin Monte Carlo within Gibbs*, in ICML, Online

Maxime Vono, Nicolas Dobigeon, and Pierre Chainais (2021), *Asymptotically exact data augmentation: models, properties and algorithms*, Journal of Computational and Graphical Statistics, vol. 30, no. 2, pp. 335-348.

Maxime Vono, Nicolas Dobigeon, and Pierre Chainais (2019). *Split-and-augmented Gibbs sampler - Application to large-scale inference problems*, IEEE Transactions on Signal Processing, vol. 67, no. 6, pp. 1648-1661.

Education

2017-2020 **Ph.D. in Statistics**, ***University of Toulouse***, Toulouse.
Ph.D. advisors: Nicolas Dobigeon and Pierre Chainais.
Spring 2019: visiting scholar at the University of Oxford in Arnaud Doucet's research group.

2016-2017 **M.Sc. in Applied Mathematics**, ***University of Lille***, Lille.
Major in **Probability & Statistics**: Itô calculus, statistics, stochastic processes. *Honours*.

2013-2017 **M.Sc. in Engineering**, ***École Centrale de Lille***, Lille.
Major in **Data Analysis & Decision making (DAD):** optimisation, statistics. *Rank: 1*.

Work experience

nov. 2020 - current **Research Associate**, *Lagrange Mathematics and Computing Research Center, Huawei*, Paris.
Working with Eric Moulines (Polytechnique, member of the French Academy of Sciences) on distributed/federated Bayesian methods. Mentoring of 1 Ph.D. student and 2 M.Sc. interns.

sep. 2018 - sep. 2019 **Data Science consultant**, *Intermarché*, Paris.
Consultancy missions for the Strategy, Commercial Performance and Data direction of Intermarché, an international supermarket chain (32 days).
Main missions: data strategy and sales/revenue forecasting.

apr. 2017 - sep. 2017 **Data Scientist intern**, *Vekia*, Lille.
Machine learning techniques (random forests, sparse representations, time series, ...) applied to sales forecasting issues and supply chain management.
Led 4 major projects in different sectors: clothing, home improvement, food and health/beauty.

oct. 2016 - sep. 2017 **Operations Research consultant**, *Leroy Merlin France*, Lille.
Dynamic pricing in clearance and promotional events (stochastic processes, robust control, Itô calculus). The derived pricing strategy was tested on real sales transactions and has been proposed to some French brick-and-mortar stores.

Computer skills

Programming MATLAB, Python, R
Documents LaTeX, Microsoft Office

Languages

French Mother tongue
English Fluent
Spanish Fluent