# Maxime Vono

Ph.D. in Statistics

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 https://mvono.github.io



#### Research interests

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

# Selected publications

- Maxime Vono, Nicolas Dobigeon, Pierre Chainais (2020), *High-dimensional Gaussian sampling: A review and a unifying approach based on a stochastic proximal point algorithm.* arXiv: 2010.01510.
- **Maxime Vono**, Daniel Paulin, Arnaud Doucet (2019), Efficient MCMC sampling with dimension-free convergence rate using ADMM-type splitting. arXiv: 1905.11937.
- Maxime Vono, Nicolas Dobigeon, Pierre Chainais (2020), Asymptotically exact data augmentation: models, properties and algorithms, Journal of Computational and Graphical Statistics (in press).
- Maxime Vono, Nicolas Dobigeon, 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

- sep. 2018 Data Science consultant, Intermarché, Paris.
- sep. 2019 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 Data Scientist intern, Vekia, Lille.
- sep. 2017 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 Operations Research consultant, Leroy Merlin France, Lille.
- sep. 2017 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.
- mar. 2016 Data Scientist intern, Leroy Merlin France, Lille.
  - sep. 2016 Daily revenue forecasting (time series). The derived revenue forecasting algorithm is currently used to anticipate potential losses with respect to initial objectives.

#### Computer skills

Programming MATLAB, Python, R

Documents LATEX, Microsoft Office

## Languages

French Mother tongue

English Fluent

Spanish Fluent