Mathurin Massias

PhD in Machine Learning

PHONE NUMBER:	+33 (0) 6 50 01 00 73
EMAIL:	mathurin.massias@gmail.com
WEBSITE:	https://mathurinm.github.io

Skills

MATHEMATICS:	Convex optimisation, sparsity, proximal methods, high dimension
COMPUTER SCIENCE:	Python (excellent), R (good), Matlab (good)
	Github: http://github.com/mathurinm
	StackOverflow: https://stackoverflow.com/users/2902280/p-camilleri
LANGUAGES:	English (fluent), Spanish (basics)

Professional experience

JAN 2020 -	**UNIVERSITÀ DI GENOVA** (Genova, Italy) : Post-doctoral researcher, supervised by L. Rosasco and S. Villa Statistical learning and optimisation
SEPT. 2016 - DEC. 2019 (3 YEARS)	INRIA (Université Paris-Saclay, France): PhD student in the Parietal team, supervised by A. Gramfort and J. Salmon High dimensional sparse regression, with coloured heteroscedastic noise Machine Learning: Convex and non-convex optimisation, Inverse problems, Sparsity, High dimension Technical framework: Python (Cython, numpy, sklearn) Publications: [1, 2, 3, 4, 5, 6, 7, 8]
FEB. 2019 - MAY 2019 (3 MONTHS)	U. of Tokyo/RIKEN (Japan), Deep Learning Theory team: intern, supervised by T. Suzuki Work on gradient Langevin dynamics for non-convex regression in RKHS Machine Learning: Stochastic differential equations, Markov chains, Ergodicity Publications: currently writing
JUNE 2015 - JUNE 2016 (1 YEAR)	CARDIOLOGS (Paris, France): Data scientist Design and implementation of automatic heart disease screening algorithms. Supervised learning on a dataset of 300,000 ECGs. Machine Learning: Convolutional neural networks, Recurrent neural networks Technical framework: Python (numpy), Tensorflow, Caffe, Theano/nolearn/lasagne
OCT. 2014 - MAR. 2015 (6 MONTHS)	DREEM-DEVICES (Paris, France): Part-time data scientist Classification and dimensionality reduction on EEG signals. Machine Learning: Signal processing, Clustering (K-Means, Meanshift, GMM, HMM) Technical framework: Python (numpy, sklearn)

Education

SEPT. 2016 - SEPT. 2019	**Parietal Team, INRIA Saclay, Université Paris-Saclay** (Saclay, France): PhD student Title: Sparse high dimensional regression in the presence of heteroscedastic noise Advisors: Alexandre Gramfort, Joseph Salmon
SEPT. 2014 - APR. 2015	**ENS Cachan** (Cachan, France): MSc in Machine Learning (MVA) Summa cum laude (average grade: 16.8/20)
SEPT. 2011 - APR. 2015	**Ecole Centrale Paris** (Paris, France): Engineering degree Major in Applied Mathematics and Data Science Average grade: 16.3/20
JAN. 2013 - MAY 2013	**Indian Institute of Science** (Bengalore, India): Exchange semester Pure Mathematics Department

INTERESTS

Modern history, Antic history (latin language)
Photography

PUBLICATIONS

[1] **M. Massias***, Q. Bertrand*, A. Gramfort, and J. Salmon. Support recovery and sup-norm convergence rates for sparse pivotal estimation. *AISTATS*, 2020.

[2] **M. Massias**, S. Vaiter, A. Gramfort, and J. Salmon. Dual extrapolation for sparse Generalized Linear Models. *submitted to JMLR*, 2019.

[3] P. Ablin, T. Moreau, **M. Massias**, and A. Gramfort. Learning step sizes for unfolded sparse coding. *NeurIPS*, 2019.

[4] Q. Bertrand*, **M. Massias***, A. Gramfort, and J. Salmon. Concomitant Lasso with repetitions: beyond averaging multiple realizations of heteroscedastic noise. *NeurIPS*, 2019.

[5] **M. Massias**, A. Gramfort, and J. Salmon. Celer: a fast solver for the Lasso with dual extrapolation. *ICML*, 2018.

[6] **M. Massias**, O. Fercoq, A. Gramfort, and J. Salmon. Heteroscedastic multitask concomitant Lasso for sparse multimodal regression. *AISTATS*, 2018.

[7] **M. Massias**, J. Salmon, and A. Gramfort. Gap safe screening rules for faster complex-valued multi-task group Lasso. *SPARS*, 2017.

[8] **M. Massias**, A. Gramfort, and J. Salmon. From safe screening rules to working sets for faster Lasso-type solvers. *OPT-ML workshop at NeurIPS*, 2017.