Yassine Laguel

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Education

2018–2021 **Phd in Optimization and Machine Learning**, *Supervised by Jérôme Malick, Université Grenoble Alpes*, Grenoble.

2017–2018 **Master of Sciences in Industial and Applied Mathematics (MSIAM)**,
Master 2, track Statistics, Grenoble.

2015–2018 **Ecole Nationnale Supérieure de l'Informatique et des Mathématiques Appliquée (ENSIMAG)**,
Engineering School, track Financial Engineering, Grenoble.

2012–2015 **Classes Préparatoires MPSI-MP***,
Lycée Blaise Pascal, Orsay, Option Computer Science.

2012 **Baccalauréat Option Sciences**,
Lycée Blaise Pascal, Orsay, High honors.

Scientific publications

2020 **Device Heterogeneity in Federated Learning : A Superquantile Approach**, *Yassine Laguel, Krishna Pillutla, Jérôme Malick, Zaid Harchaoui*.
Submitted

2020 **On transconcavity and probability constraints**, Wim Van Ackooij, Yassine Laguel, Jérôme Malick, Guilherme Matiussi Ramalho.
Submitted

2020 **Randomized Progressive Hedging methods for Multi-stage Stochastic Programming**, *Gilles Bareilles, Yassine Laguel, Dmitry Grishchenko, Franck Iutzeler, Jerome Malick*.
To appear in Annals of Operations Research

2020 **First Order Optimization for superquantile-based supervised learning**, *Yassine Laguel, Jérôme Malick, Zaid Harchaoui*.
MLSP 2020 - Best Student Paper Award

Scientific Talks and Poster

2020 **Device Heterogeneity in Federated Learning : A superquantile approach**, *Talk*, FLOW.
Online Seminar

2020 **First-order optimization for superquantile-based supervised learning**, *Talk*, MLSP.
Espoo, Finland

2020 **A DC approach for chance constraints**, *Talk*, SMAI-MODE.
Saclay, France

2020 **Handling Device Heterogeneity in Federated Learning**, *Poster*, Optimization for Machine Learning.
Marseille, France

2020 **Practical Minimization of CVar-based Risk functions**, *Talk*, ROADEF.
Montpellier, France

2019 **Sur l'usage de la transconcavité pour les problèmes avec contraintes en probabilités**, *Talk*, Journées annuelles du GDR MOA 2019.
Rennes, France

2019 **On the interplay between generalized concavity and chance constraints**, *Talk*, ICCOPT 2019.
Berlin, Germany

2019 1^{st} **Order Methods for Minimization of Superquantile-based Risk Measures**, *Talk*, ICSP 2019.
Trondheim, Norway

Teaching Activities

2020 **Introduction to R (30h)**, *Université Grenoble Alpes*, L1, Practical Work.

2019-2020 **Introduction to Python (2x30h)**, *Université Grenoble Alpes*, M1 SSD, Lectures and Practical Work.

2019 **Convex and Distributed Optimization (18h)**, *Université Grenoble Alpes*, M2 MSIAM, Lecture and Practical Work.

2019 **Numerical Optimization (25h)**, *ENSIMAG*, 2^{nd} Year, Directed Studies and Practical Work.

2019 **Introduction to R (30h)**, *Université Grenoble Alpes*, Bachelor 1^{st} Year, Practical Work.

2016-2017 **Fundamentals of Analysis and Algebra (50h)**, *Grenoble INP*, Bachelor 1^{st} Year, Directed Studies.

2015-2016 **Fundamentals of Analysis and Algebra (50h)**, *Université Grenoble Alpes*, Bachelor $1^{st}/2^{nd}$ Year, Directed Studies.

Work Experience

2018 **Research Internship**, *University of Washington*, Seattle.
First order methods for Superquantile Regression

2017 **Research Internship**, *EDF R&D*, Saclay.
On transconcavity and eventual convexity of Chance constrained problems.

2017 **Conception and implementation of a transport management algorithm for an international firm**, *Consulting for a french company*.
Realization of an optimized algorithm for a transport network consisting of hundreds of sites and thousands of trucks.

2016 **Research Internship**, *WeSave, Financial Startup*, Paris.
Research Internship in mathematical Finance, on the establishment of quantitative criterium based on correlations matrices to anticipate crises

2013 **Member of the Jury**, *ITYM*, IASI, Roumanie.
Member of the Jury at the International Tournament of Young Mathematicians (ITYM).

Prizes

2012 **Best Student Paper Award**,
MLSP 2020, Espoo, Finland.

2012 **Finalist of the International Tournament of Young Mathematicians (ITYM)** ,
Orsay, France.
Rank : 3^{rd}

2012 **Finalist of the french tournament of young mathematicians (TFJM)** ,
Saclay, France.
Rank : 1^{st} ex-aequo

Computer Skills

Languages Python, Julia, Java, C/C++, Ada, R, SQL, HTML/CSS, JavaScript, Bash, Ocaml, Latex

Operating Systems Mac OS/X, Windows, Linux

Languages

French	Mother tongue
English	Advanced. Score TOEFL IBT : 93

Hobbies

- Olympic Mathematics, Music, Hiking