



Guillaume Garrigos

Curriculum Vitae

Personal information and contact

- 👤 Born in Toulouse (France), May 8th 1989.
- ✉️ Université Paris Cité, Place Aurélie Nemours, 75013 Paris, France.
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Current position (2018–)

position **Maître de conférences** at Université Paris Cité
affiliation Laboratoire de Probabilités, Statistique et Modélisation
research interests optimization, statistical machine learning, inverse problems, image and signal processing, algorithms and continuous dynamical systems, tame optimization.

Previous positions (2012–2018)

- 2017–2018 **Post-doc**, *École Normale Supérieure*, Paris, France
Main collaborator : Gabriel Peyré (ENS, CNRS, INRIA)
Research themes : inverse problems, signal and image processing, optimization
- 2015–2017 **Post-doc**, *Istituto Italiano di Tecnologia*, Genoa, Italy
Main collaborators : Lorenzo Rosasco (IIT, MIT) and Silvia Villa (IIT)
Research themes : optimization and regularization methods for machine learning.
- 2012–2015 **Ph.D.**, *Université de Montpellier & Universidad Santa María*, France & Chile
Supervisors : Hedy Attouch (UM) and Juan Peypouquet (USM)
Subject : Dynamical systems for tame optimization and multi-objective problems

List of Science Communication activities

- 2024-02-08 Exposé: Stagiaires 3e. Université Paris Cité, Paris.
- 2023-02-15 Exposé: Stagiaires 3e. Université Paris Cité, Paris.
- 2022-12-01 Animation: Conférence et ateliers pour des élèves de lycée. IHP, Paris.
- 2022-10-15 Animation: Fête de la Science. Jussieu, Paris.
- 2022-06-05 Animation: Salon Culture et Jeux Mathématiques. Place St. Sulpice, Paris.
- 2022-02-17 Exposé: Stagiaires 3e. Université Paris Cité, Paris.
- 2021-11-23 Conférence grand public: Le mois de l'Optimisation. Palais des Congrès, Perpignan.
- 2019-02-21 Exposé: Stagiaires 3e. Université Paris Cité, Paris.
- 2018-10-08 Animation: Fête de la Science. Lycée, Paris.

Responsibilities

Student supervision

- 2025-2028 Théo Moret. Undergrad + PhD thesis.
2023-2027 Lucas Ketels. Undergrad + PhD thesis.
2023 Julien Marie-Anne. Undergrad project.
2021-2024 Massil Hihat. PhD thesis.

Seminars, Events

- 2019 Co-organizer of the workshop "*Regularisation for Inverse Problems and Machine Learning*", in Paris 
2018 Co-organizer of the session "*Dimensionality reduction tools for learning: A sketchy session*" for the International Symposium on Mathematical Programming (ISMP)
2017 Organizer of the NORIA group meeting at ENS
2017 Co-organizer of the Machine Learning summer school RegML 2017, in Oslo 
2015–2017 Organizer of the Machine Learning Tutorials, IIT (Genova) and MIT (Boston)

Selected publications

- M. Hihat, S. Gaiffas, G. Garrigos and S. Bussy. *Online Inventory Problems: Beyond the i.i.d. Setting with Online Convex Optimization*, Advances in Neural Information Processing Systems, Vol. 36, 2024. 
- J. Domke, G. Garrigos and R. M. Gower. *Provable convergence guarantees for black-box variational inference*, Advances in Neural Information Processing Systems, Vol. 36, 2024. 
- J. Chen, R. Yuan, G. Garrigos and R. M. Gower. *SAN: Stochastic Average Newton Algorithm for Minimizing Finite Sums*, 25th International Conference on Artificial Intelligence and Statistics (AISTATS), PMLR, Vol. 151, pp. 279–318, 2022. 
- G. Garrigos, L. Rosasco and S. Villa. *Sparse Multiple Kernel Learning: Support Identification via Mirror Stratifiability*, IEEE 26th European Signal Processing Conference (EUSIPCO), pp. 1077–1081, 2018. 
- J. Fadili, G. Garrigos, J. Malick and G. Peyré. *Model Consistency for Learning with Mirror-Stratifiable Regularizers*, 22nd International Conference on Artificial Intelligence and Statistics (AISTATS), PMLR, Vol. 89, pp. 1236–1244, 2019. 
- G. Garrigos, L. Rosasco and S. Villa. *Iterative regularization via a dual diagonal descent method*, 9th NIPS Workshop on Optimization for Machine Learning, 2016. 