



Guillaume Garrigos

Curriculum Vitae

Personal information and contact

- 👤 Born in Toulouse (France), May 8th 1989.
- ✉ Université Paris Cité, Place Aurélie Nemours, 75013 Paris, France.
- @ guillaume.garrigos@lpsm.paris
- 🌐 <http://guillaume-garrigos.com>

Current position (2018–)

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

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 Maria*, 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. Gaïffas, 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. 📄