

Clément Bonet

Curriculum Vitae

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Education

2020 2023	Laboratoire de Mathématiques de Bretagne Atlantique (LMBA), PHD , <i>Université Bretagne Sud</i> , Vannes, Bretagne, France Bridging the Gap between Stochastic Methods and Deep Learning. Supervisors: François Septier, Nicolas Courty and Lucas Drumetz.
2019 2020	Ecole Normale Supérieure Paris-Saclay, Master 2 MVA (Mathematics, Machine Learning and Computer Vision) , Cachan, France. Convex Optimization, Computational Statistic, Probabilistic Graphical Model, Deep Learning, Kernel Methods, Bayesian Machine Learning. High Honors.
2017 2020	Télécom Paris , Paris, France Majors: Data Science, Random Modelization and Scientific Computing.

Professional Experiences

Teaching Assistant

2023	Regression Model (L3) , <i>Université Bretagne Sud</i> , Vannes, France
2022	Linear Regression and Simulation Methods (L3) , <i>Université Bretagne Sud</i> , Vannes, France
2021	Mathematic Statistics (L3) , <i>Université Bretagne Sud</i> , Vannes, France

Internships

2020	Research Internship , <i>MAP5</i> , Paris, France Supervisors: Raphaël Lachière-Rey, Pierre Latouche and Antoine Marchina. Study of a subsampling algorithm using Gaussian Random Fields (https://github.com/clbonet/Internship-MVA).
2019	Data Analyst Internship , <i>Sodexo Benefits & Rewards Services</i> , Ixelles, Bruxelles Establishment analysis of VISA and MasterCard reimbursement data as part of the replacement affiliate scholarship.
2018	Web Development Internship , <i>ZenyWay</i> , Paris, France I developed the frontend interface of ZenyPass, a password manager.

Publications

- [1] Clément Bonet, Paul Berg, Nicolas Courty, François Septier, Lucas Drumetz, and Minh-Tan Pham. "Spherical Sliced-Wasserstein". In: *International Conference on Learning Representations*. 2023.

- [2] Clément Bonet, Benoît Malézieux, Alain Rakotomamonjy, Lucas Drumetz, Thomas Moreau, Matthieu Kowalski, and Nicolas Courty. "Sliced-Wasserstein on Symmetric Positive Definite Matrices for M/EEG Signals". In: *International Conference on Machine Learning*. PMLR. **2023**.
- [3] Clément Bonet, Nicolas Courty, François Septier, and Lucas Drumetz. "Efficient Gradient Flows in Sliced-Wasserstein Space". In: *Transactions on Machine Learning Research* (**2022**).
- [4] Clément Bonet, Titouan Vayer, Nicolas Courty, François Septier, and Lucas Drumetz. "Subspace Detours Meet Gromov–Wasserstein". In: *Algorithms* 14.12 (**2021**), p. 366.

Preprints

- [5] Thibault Séjourné, Clément Bonet, Kilian Fatras, Kimia Nadjahi, and Nicolas Courty. *Unbalanced Optimal Transport meets Sliced-Wasserstein*. **2023**.
- [6] Clément Bonet, Laetitia Chapel, Lucas Drumetz, and Nicolas Courty. *Hyperbolic Sliced-Wasserstein via Geodesic and Horospherical Projections*. **2022**.

Other Research Experiences

Reviews I have reviewed at different conferences: AISTATS2022,2023, ICML2022 (Outstanding Reviewer), ICML2023, Neurips2022.

Open source Contributor to the Python Optimal Transport library: <https://pythonot.github.io>: I implemented the algorithm to solve the Wasserstein distance on the circle along with the Spherical Sliced-Wasserstein distance.

Talks

- 13/12/2021 Subspace Detours Meet Gromov-Wasserstein. Spotlight poster at the Neurips Workshop OTML2021.
- 18/11/2021 Sliced-Wasserstein Gradient Flows. GDR ISIS OTML.

Languages

French	Native Speaker	★★★★★
English	623/677 TOEFL ITP (January 2019)	★★★★☆
German	Abitur in 2015	★★★☆☆

Skills

Programming Python ★★★★★, LaTeX ★★★★★

Basic R, Java, C, C++, SQL, HTML, CSS, Javascript.

Data Science Scikit-learn, Pytorch

Tools	Git	<i>Program Version Control and Program Repositories.</i>
OS	Linux	<i>Daily use.</i>