Maxime Sylvestre

Research interests

Optimal transport and its applications in economics.

Education

2022- **Ph.D. in Mathematics**, *Université Paris Dauphine PSL*, Paris, France

2019–2021 **M.S. in Mathematics**, *Université Paris-Saclay*, Orsay, France

2019 **B.S. in Mathematics**, *ENS Ulm*, Paris, France

Publications

1. Global Regularity Estimates for Optimal Transport via Entropic Regularisation. Nathael Gozlan, Maxime Sylvestre. *arXiv:2501.11832*, 2025.
2. On a class of adversarial classification problems which admit a continuous solution. Guillaume Carlier, Maxime Sylvestre. *JOTA*, 2024.
3. Implicit Bias in Noisy-SGD: With Applications to Differentially Private Training. Tom Sander, Maxime Sylvestre, Alain Durmus. *AISTATS*, 2024.
4. Convergence Rates of the Regularized Optimal Transport : Disentangling Suboptimality and Entropy. Hugo Malamut, Maxime Sylvestre. *SIAM Journal on Mathematical Analysis*, 2023.
5. Monotone comparative statics for submodular functions, with an application to aggregated deferred acceptance. Alfred Galichon, Yu-Wei Hsieh, Maxime Sylvestre. *arXiv:2304.12171*, 2023.

Selected talks

- GT OT-PDE-ML, Université d'Orsay, France, January 2025
- CANUM, France, June 2024
- AISTATS, Spain, May 2024
- Topics in optimal transport, IESC, France, April 2024
- SMAI MODE, Université de Lyon, France, March 2024
- Optimal transport and applications, MFO, Germany, February 2024

Teaching experience

Linear Algebra, Université Paris Dauphine PSL, 2024

Numerical Methods, Université Paris Dauphine PSL, 2023

Languages

French (Mothertongue), English (Fluent)

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