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RESEARCH INTERESTS

Statistical Data Analysis, Health Economics, Mathematics, Decision Sciences, Probability Theory &

EDUCATION

2012	Doctorate, Other, Mathematics, Université Paris Est Créteil, France
2007	Doctorate, Mathematics, Université Pierre et Marie Curie (UPMC), France *Aggregation methods: optimality and fast rates*
2004	Master of Engineering, Mathematics, École Normale Supérieure de Rennes, France

EMPLOYMENT

Full-time academic positions

2022 - Present Professor, ESSEC Business School, France

Other affiliations and appointments

2022 - 2027 Academic director of BSc AIDAMS, ESSEC Business School, France

PUBLICATIONS

Journal Articles

LECUE, G. and SHANG, Z. (2025). A geometrical viewpoint on the benign overfitting property of the minimum L2-norm interpolant estimator and its universality. *Probability Theory and Related Fields*, 191, pp. 1401-1484.

LECUE, G. and NEIRAC, L. (2025). Learning with a linear loss function: excess risk and estimation bounds for ERM, minmax MOM and their regularized versions with applications to robustness in sparse PCA. *Journal of Machine Learning Research*, 29(399), pp. 1-90.

GAVRILOPOULOS, G., LECUE, G. and SHANG, Z. (2025). A Geometrical Analysis of Kernel Ridge Regression and its Applications. *Annals of Statistics*, 53(6), pp. 2592-2616.

DEPERSIN, J. and LECUE, G. (2023). On the robustness to adversarial corruption and to heavy-tailed data of the Stahel–Donoho median of means. *Information and Inference: A Journal of the IMA*, 12(2), pp. 814-850.

DEPERSIN, J. and LECUE, G. (2022). Robust sub-Gaussian estimation of a mean vector in nearly linear time. *Annals of Statistics*, 50(1), pp. 511-536.

DEPERSIN, J. and LECUE, G. (2022). Optimal robust mean and location estimation via convex programs with respect to any pseudo-norms. *Probability Theory and Related Fields*, 183(3-4), pp. 997-1025.

KWON, J., LECUE, G. and LERASLE, M. (2021). A MOM-based ensemble method for robustness, subsampling and hyperparameter tuning. *The Electronic Journal of Statistics*, 15(1), pp. 1202-1207.

CHRÉTIEN, S., CUCURINGU, M., LECUE, G. and NEIRAC, L. (2021). Learning with semi-definite programming: statistical bounds based on fixed point analysis and excess risk curvature. *Journal of Machine Learning Research*, 22(230), pp. 1-64.

CHINOT, G., LECUE, G. and LERASLE, M. (2021). Robust high dimensional learning for Lipschitz and convex losses. *Journal of Machine Learning Research*, (233), pp. 1-47.

LECUE, G. and LERASLE, M. (2020). Robust machine learning by median-of-means: Theory and practice. *Annals of Statistics*, 48(2).

ALQUIER, P., COTTET, V. and LECUE, G. (2019). Estimation bounds and sharp oracle inequalities of regularized procedures with Lipschitz loss functions. *Annals of Statistics*, 47(4), pp. 2117-2144.

LECUE, G. and LERASLE, M. (2019). Learning from MOM's principles: Le Cam's approach. *Stochastic Processes and their Applications*, 129(11), pp. 4385-4410.

BELLEC, P.C., LECUE, G. and TSYBAKOV, A.B. (2018). Slope Meets Lasso: Improved Oracle Bounds and Optimality. *Annals of Statistics*, 46(6B), pp. 3603-3642.

LECUE, G. and MENDELSON, S. (2018). Regularization and the small-ball method I: Sparse recovery. *Annals of Statistics*, 46(2), pp. 611-641.

Conferences

LECUE, G. and SHANG, Z. (2023). A Geometrical Viewpoint on the Benign Overfitting Property of the Minimum l2-norm Interpolant Estimator. In: 2023 Mini-Workshop: Interpolation and Over-parameterization in Statistics and Machine Learning. Oberwolfach.

LECUE, G. and NEIRAC, L. (2023). Learning with a linear loss function. Excess risk and estimation bounds for ERM, minmax MOM and their regularized versions. Applications to robustness in sparse PCA. In: 2024 Meeting in Mathematical Statistics Conference, CIRM. Marseille.

OTHER RESEARCH ACTIVITIES

Editorial Board Membership

Since 2024 Annals of Statistics

2022 - 2026 ALEA