

# Guillaume LECUE

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Professeur

Département: Systèmes d'Information, Data  
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Campus de Cergy

## DIPLÔMES

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|------|---|
| 2012 | Doctorat, Autre, Mathématiques<br>(Université Paris Est Créteil France)         |
| 2007 | Doctorat, Mathématiques<br>(Université Pierre et Marie Curie (UPMC) France)     |
| 2004 | Ecole d'ingénieur, Mathématiques<br>(École Normale Supérieure de Rennes France) |

## CARRIÈRE

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### POSITIONS ACADÉMIQUES PRINCIPALES

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|----------------|---|
| 2022 - Présent | Professeur (ESSEC Business School France) |
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### AUTRES POSITIONS ACADÉMIQUES

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| 2022 - 2026-08-31 | Directeur académique du BSc AIDAMS (ESSEC Business School France) |
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## PUBLICATIONS

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### ARTICLES

- [ALQUIER, P., COTTET, V. et LECUE, G. \(2019\). Estimation bounds and sharp oracle inequalities of](#)

[regularized procedures with Lipschitz loss functions. \*Annals of Statistics\*, 47\(4\), pp. 2117-2144.](#)

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

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

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

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

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

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

[DEPERSIN, J. et 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.](#)

[CHRÉTIEN, S., CUCURINGU, M., LECUE, G. et 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. et LERASLE, M. \(2021\). Robust high dimensional learning for Lipschitz and convex losses. \*Journal of Machine Learning Research\*, \(233\), pp. 1-47.](#)

[DEPERSIN, J. et 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.](#)

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

## COMMUNICATIONS DANS UNE CONFÉRENCE

[LECUE, G. et SHANG, Z. \(2023\). A Geometrical Viewpoint on the Benign Overfitting Property of the Minimum  \$l\_2\$ -norm Interpolant Estimator. Dans: 2023 Mini-Workshop: Interpolation and Over-parameterization in Statistics and Machine Learning?. Oberwolfach.](#)

[LECUE, G. et 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. Dans: 2024 Meeting in Mathematical Statistics Conference, CIRM. Marseille.](#)

## ACTIVITÉS DE RECHERCHE

### Membre d'un comité de lecture

2022 - 2026: Rédacteur adjoint - ALEA

2024 - Présent: Associate Editor - Annals of Statistics