

Olga KLOPP

Professeur

b00732676@essec.edu

Département: Systèmes d'Information, Data
Analytics et Opérations
Campus de Cergy

DIPLÔMES

DIPLÔMES

- | | |
|------|--|
| 2004 | Doctorat en Mathématiques
(Université Nationale Autonome de Mexico Mexique) |
| 1997 | Master en Mathématiques
(Université d'État Lomonossov de Moscou Russie) |
| 2016 | HDR
(Université Paris X Nanterre France) |

CARRIÈRE

POSITIONS ACADÉMIQUES PRINCIPALES

- | | |
|-------------------|---|
| 2017 - 2023-09-01 | Professeur associé (ESSEC Business School France) |
| 2012 - 2017-08-31 | Maître de conférences (Université Paris X Nanterre France) |
| 2004 - 2008-07-31 | Maître de conférences (Université Nationale Autonome de Mexico Mexique) |
| 2023 - Présent | Professeur (ESSEC Business School France) |

AUTRES POSITIONS ACADÉMIQUES

- | | |
|-------------------|--|
| 2010 - 2012-08-31 | Post-Doctorant (Centre de recherche en économie et statistique (CREST)
France) |
| 2018 - 2024-08-31 | Responsable académique DD CentraleSupélec et ENSAE (ESSEC Business
School France) |

2018 - 2023-08-31 Responsable de filière scientifique (ESSEC Business School France)

AUTRES POSITIONS

2017 - 2017-08-31 Délégation CNRS (Centre de recherche en économie et statistique (CREST) France)

PUBLICATIONS

CHAPITRES

[CARPENTIER, A., KLOPP, O. et LÖFFLER, M. \(2019\). Constructing Confidence Sets for the Matrix Completion Problem. Dans: *Nonparametric Statistics*. 1st ed. Springer, pp. 103-119.](#)

[CHEN, J., SCHMIDT-HIEBER, J., DONNAT, C. et KLOPP, O. \(2025\). Understanding the Effect of GCN Convolutions in Regression Tasks. Dans: Li, Yingzhen, Stephan Mandt, Shipra Agrawal, and Emtiyaz Khan eds. *2025. Proceedings of the 28th International Conference on Artificial Intelligence and Statistics*. 1st ed. Proceedings of Machine Learning Research.](#)

HDR

[KLOPP, O. \(2016\). HDR. France.](#)

ARTICLES

[ROBIN, G., KLOPP, O., JOSSE, J., MOULINES, E. et TIBSHIRANI, R. \(2019\). Main Effects and Interactions in Mixed and Incomplete Data Frames. *Journal of the American Statistical Association*, 115\(531\), pp. 1292-1303.](#)

[KLOPP, O. et VERZELEN, N. \(2018\). Optimal Graphon Estimation in Cut Distance. *Probability Theory and Related Fields*, 174, pp. 1033-1090.](#)

[KLOPP, O. \(2011\). Rank penalized estimators for high-dimensional matrices. *The Electronic Journal of Statistics*, 5, pp. 1161-1183.](#)

[KLOPP, O. et PENSKY, M. \(2013\). Non-asymptotic approach to varying coefficient model. *The Electronic Journal of Statistics*, 7, pp. 454-479.](#)

[KLOPP, O. \(2014\). Noisy low-rank matrix completion with general sampling distribution. *Bernoulli: A Journal of Mathematical Statistics and Probability*, 20\(1\), pp. 282-303.](#)

[KLOPP, O., LAFOND, J., MOULINES, E. et SALMON, J. \(2015\). Adaptive Multinomial Matrix Completion. *The Electronic Journal of Statistics*, 9\(2\), pp. 2950-2975.](#)

[KLOPP, O. et TSYBAKOV, A. \(2015\). Estimation of matrices with row sparsity. *Problems of Information Transmission*, 51\(4\), pp. 335-348.](#)

[KLOPP, O. \(2015\). Matrix completion by singular value thresholding : sharp bounds. *The Electronic Journal of Statistics*, 9\(2\), pp. 2348-2369.](#)

[KLOPP, O. et PENSKY, M. \(2015\). Sparse high-dimensional varying coefficient model : non-asymptotic minimax study. *Annals of Statistics*, 43\(3\), pp. 1273-1299.](#)

[KLOPP, O. et GAIFFAS, S. \(2017\). High dimensional matrix estimation with unknown variance of the noise. *Statistica Sinica*, 27\(1\), pp. 115-145.](#)

[KLOPP, O., TSYBAKOV, A. et VERZELEN, N. \(2017\). Oracle inequalities for network models and sparse graphon estimation. *Annals of Statistics*, 45\(1\), pp. 316-354.](#)

[KLOPP, O., LOUNICI, K. et TSYBAKOV, A. \(2017\). Robust Matrix Completion. *Probability Theory and Related Fields*, 169\(43862\), pp. 523-564.](#)

[KLOPP, O., CARPENTIER, A., LÖFFLER, M. et NICKL, R. \(2018\). Adaptive confidence sets for matrix completion. *Bernoulli: A Journal of Mathematical Statistics and Probability*, 24\(4A\), pp. 2429-2460.](#)

[KLOPP, O., LU, Y., TSYBAKOV, A.B. et ZHOU, H.H. \(2019\). Structured Matrix Estimation and Completion. *Bernoulli: A Journal of Mathematical Statistics and Probability*, 4B\(25\), pp. 3883-3911.](#)

[GAUCHER, S., KLOPP, O. et ROBIN, G. \(2021\). Outlier detection in networks with missing links. *Computational Statistics and Data Analysis*, 164, pp. 107308.](#)

[GAUCHER, S. et KLOPP, O. \(2021\). Maximum likelihood estimation of sparse networks with missing observations. *Journal of Statistical Planning and Inference*, 215, pp. 299-329.](#)

[KLOPP, O., PANOV, M., SIGALLA, S. et TSYBAKOV, A. \(2023\). Assigning Topics to Documents by Successive Projections. *Annals of Statistics*, 51\(5\), pp. 1989-2014.](#)

[ENIKEEVA, F., KLOPP, O. et ROUSSELOT, M. \(2025\). Change-point detection in low-rank VAR processes. *Bernoulli: A Journal of Mathematical Statistics and Probability*, 31\(2\), pp. 1058-1083.](#)

[ENIKEEVA, F. et KLOPP, O. \(2025\). Change-Point Detection in Dynamic Networks with Missing Links. *Operations Research*, In press.](#)

[DONNAT, C., KLOPP, O. et VERZELEN, N. \(2026\). Denoising over networks with applications to](#)

[partially observed epidemics. *Computational Statistics and Data Analysis*, 215, pp. 108276.](#)

[CHHOR, J., KLOPP, O. et TSYBAKOV, A. \(2025\). Generalized multi-view model: Adaptive density estimation under low-rank constraints. *Journal of Machine Learning Research*, In press, pp. 1-52.](#)

[BORDINO, A. et KLOPP, O. \(2026\). Alberto Bordino and Olga Klopp's contribution to the Discussion of "Statistical exploration of the Manifold Hypothesis" by Whiteley et al. *Journal of the Royal Statistical Society: Series B \(Statistical Methodology\)*, qkag017, pp. 1-2.](#)

COMMUNICATIONS DANS UNE CONFÉRENCE

[KLOPP, O. \(2019\). Matrix Completion: Old and New. Dans: 2019 Structural Inference in High-Dimensional Models 2.](#)

[KLOPP, O. et VERZELEN, N. \(2017\). Optimal Graphon Estimation in Cut Distance. Dans: Workshop on Community Detection and Network Reconstruction 2017.](#)

[KLOPP, O. et VERZELEN, N. \(2018\). Optimal Graphon Estimation in Cut Distance. Dans: 27th Nordic Conference in Mathematical Statistics \(NORDSTAT\) 2018.](#)

[KLOPP, O. et VERZELEN, N. \(2018\). Optimal Graphon Estimation in Cut Distance. Dans: Tercera jornada Franco-Chilena de Estadística.](#)

[KLOPP, O. \(2019\). Sparse Network Estimation. Dans: 2019 The Power of Graphs in Machine Learning and Sequential Decision -making.](#)

[KLOPP, O. \(2019\). Sparse Network Estimation. Dans: High dimensional probability and algorithms.](#)

[KLOPP, O., TSYBAKOV, A. et VERZELEN, N. \(2018\). Network Models and Sparse Graphon Estimation. Dans: 14th Franco-Romanian Conference on Applied Mathematics.](#)

[KLOPP, O., LU, Y., TSYBAKOV, A.B. et ZHOU, H.H. \(2018\). Structured Matrix Estimation and Completion. Dans: 4th Conference of the International Society for Nonparametric Statistics.](#)

[GAUCHER, S. et KLOPP, O. \(2022\). Optimality of Variational Inference for Stochastic Block Model. Dans: 2022 Graph Limits, Nonparametric Models, and Estimation. Berkeley.](#)

[GAUCHER, S., KLOPP, O. et ROBIN, G. \(2022\). Outlier Detection in Networks. Dans: 2022 International Symposium on Nonparametric Statistics \(ISNPS\). Paphos.](#)

[ENIKEEVA, F. et KLOPP, O. \(2023\). Change Point Detection in Dynamic Networks. Dans: 2023 Change Point Workshop at Warwick. Warwick.](#)

[GAUCHER, S. et KLOPP, O. \(2023\). Optimality of Variational Inference for Stochastic Block Model. Dans: 12th Workshop on High Dimensional Data Analysis \(HDDA-XII\) 2023. Paris.](#)

[KLOPP, O. \(2023\). Denoising Over Network with Application to Discrete-time Epidemic Process. Dans: 2023 Graph Limits and Processes on Networks Reunion. Berkeley.](#)

[KLOPP, O. \(2024\). Low-rank density estimation. Dans: 2024 Workshop on Heterogeneous and Distributed Data. Warwick.](#)

[KLOPP, O. \(2024\). One bit total variation denoising with applications. Dans: 2024 Mathematical Aspects of Learning Theory - 20 years later. Barcelona.](#)

[KLOPP, O. \(2015\). 1-bit Matrix Completion. Dans: Indian Russian Conference in Statistics and Probability. Delhi.](#)

[KLOPP, O. \(2015\). Oracle inequalities for network models and sparse graphon estimation. Dans: Meeting in Mathematical Statistics. Frejus.](#)

[KLOPP, O. \(2015\). Oracle inequalities for network models and sparse graphon estimation. Dans: 2nd Heidelberg - Mannheim Stochastic Colloquium.](#)

[KLOPP, O. \(2016\). Confidence sets for matrix completion. Dans: Advances in nonparametric and high-dimensional Statistic. Frejus.](#)

[KLOPP, O. \(2016\). Matrix Completion. Dans: Multimedia Inpainting Workshop. Rennes.](#)

[KLOPP, O. \(2016\). Network models and sparse graphon estimation. Dans: NIPS workshop. Barcelona.](#)

[KLOPP, O. \(2016\). Oracle inequalities for network models and sparse graphon estimation. Dans: Joint Statistical Meeting. Chicago.](#)

[KLOPP, O. \(2016\). Oracle inequalities for network models and sparse graphon estimation. Dans: 3rd ISNPS conference. Avignon.](#)

[KLOPP, O. \(2016\). Oracle inequalities for network models and sparse graphon estimation. Dans: Modern problems of stochastic analysis and statistics. Moscow.](#)

[KLOPP, O. \(2017\). Optimal graphon estimation in cut distance. Dans: The Foundations in Computational Mathematics Conference. Barcelona.](#)

[KLOPP, O. \(2017\). Optimal graphon estimation in cut distance. Dans: Statistics meets Stochastics 2. Moscow.](#)

[KLOPP, O., TSYBAKOV, A. et VERZELEN, N. \(2018\). Network models. Dans: Tercera jornada Franco-Chilena de Estadística. Valparaiso.](#)

[KLOPP, O. \(2019\). Modèles de réseaux parcimonieux. Dans: 2019 Colloquium de Montpellier.](#)

[KLOPP, O. \(2020\). Link Prediction in Sparse Graphon Model. Dans: 2020 EURANDOM Workshop:](#)

Graph Limits.

KLOPP, O. (2020). Robust network analysis. Dans: 13th International Conference of the ERCIM WG on Computational and Methodological Statistics (CMStatistics 2020), Virtual Conference.

KLOPP, O., LOUNICI, K., TSYBAKOV, A.B. et ALAYA, M.Z. (2018). Robust Matrix Completion/Collective Matrix Completion. Dans: 40th Conference on Stochastic Processes and their Applications (SPA 2018).

GAUCHER, S. et KLOPP, O. (2023). Optimality of Variational Inference for Stochastic Block Model. Dans: Workshop on Eco-Stat Asymptotics 2023 WESA2023. Verona.

KLOPP, O. (2024). Denoising over network with applications to partially observed epidemics. Dans: 2024 Statistical Machine Learning for High Dimensional Data. Singapore.

KLOPP, O. (2015). Robust Matrix Completion. Dans: ISNPS Biosciences, Medicine, and novel Non-parametric Methods. Graz.

KLOPP, O. (2015). Robust Matrix Completion. Dans: The First International Conference on missing values MissData. Rennes.

KLOPP, O., TSYBAKOV, A. et VERZELEN, N. (2018). Network models and sparse graphon estimation. Dans: NordStat 2018. Tartu.

KLOPP, O., LOUNICI, K., TSYBAKOV, A. et ALAYA, M. (2018). Variety and Veracity of the Data in Matrix Completion. Dans: The 40th Conference on Stochastic Processes and their Applications. Gothenburg.

GAUCHER, S. et KLOPP, O. (2021). Optimality of variational inference for stochastic block model with missing links. Dans: 35th Conference on Neural Information Processing Systems (NeurIPS2021). Virtual.

KLOPP, O., PANOV, M., SIGILLA, S. et TSYBAKOV, A. (2022). Assigning Topics to Documents by Successive Projections. Dans: 2022 Institute of Mathematical Statistics (IMS) Annual Meeting. London.

KLOPP, O., DONNAT, C. et VERZELEN, N. (2024). Signal denoising on the graph with applications to the study of the epidemic spread. Dans: 2024 International Symposium on Nonparametric Statistics. Braga.

CHHOR, J., KLOPP, O. et TSYBAKOV, A. (2024). Generalized multi-view model: Adaptive density estimation under low-rank constraints. Dans: 2024 Bernoulli-IMS 11th World Congress in Probability and Statistics. Bochum.

[ROBIN, G., WAI, H.T., JOSSE, J., KLOPP, O. et MOULINES, A. \(2018\). Low-Rank Interactions and Sparse Additive Effects Model for Large Data Frames. Dans: *Advances in Neural Information Processing Systems 31 \(NIPS 2018\)*.](#)

[KLOPP, O., LAFOND, J., MOULINES, E. et SALMON, J. \(2014\). Probabilistic low-rank matrix completion on finite alphabets. Dans: *NIPS. Montréal: Neural Information Processing Systems*.](#)

INVITÉ DANS UNE CONFÉRENCE ACADÉMIQUE (KEYNOTE SPEAKER)

[KLOPP, O. et GAUCHER, S. \(2021\). Network Models and Sparse Graphon Estimation. Dans: *2021 Crimean Autumn Mathematical School-Symposium. Satera*.](#)

ARTICLES OU VIDÉOS DE VULGARISATION

[et KLOPP, O. \(2025\). Denoising Epidemic Data: A New Approach to Improving Disease Spread Predictions. *ESSEC Knowledge*.](#)

ACTIVITÉS DE RECHERCHE

Organisation d'une conférence ou d'un séminaire

- 2017 - 2017: Co-organisatrice du Working Group on Risk (Groupe de Travail sur le Risque) (ESSEC Business School France)
- 2024 - 2026: Meeting in Mathematical Statistics (CIRM France)
- 2024 - Présent: Forecasting & Optimization: Streamlining Supply Chains (ESSEC Business School France)
- 2025 - 2025: New Developments in the Theory and Methodology of Graph Neural Networks (NITMB Institute États-Unis)

Membre d'un comité de lecture

- 2016 - 2022: Membre du comité de lecture - Bernoulli: A Journal of Mathematical Statistics and Probability
- 2025 - Présent: Associated Editor

Co-direction d'une revue - Co-rédacteur en chef

- 2026 - Présent: Associate Editor - Computational Statistics and Data Analysis