Olga KLOPP

Professeur
Département: Systèmes d'Information, Data Analytics et Opérations
ESSEC Business School
3 avenue Bernard Hirsch
95021 Cergy-Pontoise
France

Email: b00732676@essec.edu
Numéro de téléphone: +33 (0)1 34 43 36 98
Pays d'origine: Russie

INTERETS DE RECHERCHE

Analyse des données statistiques

FORMATION

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

EXPERIENCE PROFESSIONNELLE

Positions académiques principales

2023 - Présent	Professeur, ESSEC Business School, France
2017 - 2023	Professeur associé, ESSEC Business School, France
2012 - 2017	Maître de conférences, Université Paris X Nanterre, France
2004 - 2008	Maître de conférences, Université Nationale Autonome de Mexico, Mexique

Autres affiliations académiques

2018 - 2024	Responsable académique DD CentraleSupelec et ENSAE, ESSEC Business School, France
2018 - 2023	Responsable de filière scientifique, ESSEC Business School, France
2017 - 2017	Délégation CNRS, Centre de recherche en économie et statistique (CREST), France
2010 - 2012	Post-Doctorant, Centre de recherche en économie et statistique (CREST), France

BOURSES, PRIX ET DISTINCTIONS

Prix et Distinctions

2025	Fulbright Scholar Award - National Program, Yale University, États-Unis
2024	Beaufort Fellow, St John's College, Royaume-Uni

PUBLICATIONS

Articles

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.

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.

KLOPP, O. et NOSKOV, F. (2026). Low-Rank Graphon Estimation: Theory and Applications to Graphon Games. *Bernoulli: A Journal of Mathematical Statistics and Probability*, In press.

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.

CHHOR, J., KLOPP, O. et TSYBAKOV, A. (2025). Generalized multi-view model: Adaptive density estimation under low-rank constraints. *Journal of Machine Learning Research*, 236(26), pp. 1-52.

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.

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.

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., 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.

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

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

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

Chapitres d'ouvrage

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.

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.

Actes d'une conférence

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.

Conférences

KLOPP, O. (2026). SemiSupervised Learning on Graphs with GNNs. Dans: 2026 International Symposium on Nonparametric Statistics (ISNPS). Thessaloniki.

KLOPP, O. (2025). SemiSupervised Learning on Graphs with GNNs. Dans: 2025 First Workshop on Frontiers of Statistical Inference. Abu Dhabi.

KLOPP, O. (2025). Adaptive Density Estimation under Low-rank Constraints. Dans: 2025 Frontiers of Statistics and Machine Learning. Oberwolfach.

KLOPP, O. (2025). Regression Using Graph Neural Networks. Dans: 2025 Workshop on the Statistical Theory of Neural Networks. Egmond aan Zee.

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

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

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.

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

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.

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

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 Descrete-time Epidemic Process. Dans: 2023 Graph Limits and Processes on Networks Reunion. Berkeley.

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

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.

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

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. (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. (2019). Matrix Completion: Old and New. Dans: 2019 Structural Inference in High-Dimensional Models 2.

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. (2019). Modèles de réseaux parcimonieux. Dans: 2019 Colloquium de Montpellier.

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

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., 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).

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.

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

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.

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

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. (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. (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. (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.

Presse

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

AUTRES ACTIVITES DE RECHERCHE

Co-direction d'une revue

Depuis 2026 Computational Statistics and Data Analysis

Membre d'un comité de lecture

Depuis 2025 Annals of Statistics

2016 - 2022 Bernoulli: A Journal of Mathematical Statistics and Probability

Organisation d'une conférence

2025 New Developments in the Theory and Methodology of Graph Neural Networks, NITMB Institute, États-Unis

2024 - 2026 Meeting in Mathematical Statistics, CIRM, France

Depuis 2024 Forecasting & Optimization: Streamlining Supply Chains, ESSEC Business School, France

2017 Co-organisatrice du Working Group on Risk (Groupe de Travail sur le Risque), ESSEC Business School, France

Supervision de thèses / HDR

2022 S. GAUCHER, Co-directeur de thèse

ENSEIGNEMENT

2020 Statistical Inference, ESSEC Business School, France

2019 Modelisation Statistiques, ESSEC Business School, France

2017 Big Data Analytics, ESSEC Business School, France

2016 Mini-cours: "Analyse des réseaux statistiques", Higher School of Economics (HSE),