Olga KLOPP

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RESEARCH INTERESTS

Statistical Data Analysis

EDUCATION

2016	HDR, Université Paris X Nanterre, France
2004	Ph.D. in Mathematics, Université Nationale Autonome de Mexico, Mexico
1997	Master in Mathematics and Applied Mathematics, Université d'État Lomonossov de Moscou, Russia

EMPLOYMENT

Full-time academic positions

2023 - Present	Professor, ESSEC Business School, France
2017 - 2023	Associate Professor, ESSEC Business School, France
2012 - 2017	Assistant professor, Université Paris X Nanterre, France
2004 - 2008	Assistant professor, Université Nationale Autonome de Mexico, Mexico

Other affiliations and appointments

2018 - 2024	Pedagogical Head DD CentraleSupelec et ENSAE, ESSEC Business School, France
2018 - 2023	Scientific Track Head, ESSEC Business School, France
2017 - 2017	Member of CNRS, Center for Research in Economics and Statistics (CREST), France
2010 - 2012	Postdoctoral fellow, Center for Research in Economics and Statistics (CREST), France

GRANTS AND HONORS

Awards and Honors

2025	Fulbright Scholar Award - National Program, Yale University, United States of America
2024	Beaufort Fellow, St John's College, United Kingdom

PUBLICATIONS

Journal Articles

DONNAT, C., KLOPP, O. and VERZELEN, N. (2026). Denoising over networks with applications to partially observed epidemics. *Computational Statistics and Data Analysis*, 215, pp. 108276.

BORDINO, A. and 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. and 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. and 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. and KLOPP, O. (2025). Change-Point Detection in Dynamic Networks with Missing Links. *Operations Research*, In press.

CHHOR, J., KLOPP, O. and 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. and TSYBAKOV, A. (2023). Assigning Topics to Documents by Successive Projections. *Annals of Statistics*, 51(5), pp. 1989-2014.

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

GAUCHER, S. and 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. and 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. and ZHOU, H.H. (2019). Structured Matrix Estimation and Completion. *Bernoulli: A Journal of Mathematical Statistics and Probability*, 4B(25), pp. 3883-3911.

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

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

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

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

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

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

KLOPP, O. and 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. and 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. and 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.

Book chapters

CHEN , J., SCHMIDT-HIEBER, J., DONNAT, C. and KLOPP, O. (2025). Understanding the Effect of GCN Convolutions in Regression Tasks. In: 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. and LÖFFLER, M. (2019). Constructing Confidence Sets for the Matrix Completion Problem. In: *Nonparametric Statistics*. 1st ed. Springer, pp. 103-119.

Conference proceedings

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

KLOPP, O., LAFOND, J., MOULINES, E. and SALMON, J. (2014). Probabilistic low-rank matrix completion on finite alphabets. In: *NIPS*. Montréal: Neural Information Processing Systems.

Conferences

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

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

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

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

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

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

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

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

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

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

ENIKEEVA, F. and KLOPP, O. (2023). Change Point Detection in Dynamic Networks. In: 2023 Change Point Workshop at Warwick. Warwick.

GAUCHER, S. and KLOPP, O. (2023). Optimality of Variational Inference for Stochastic Block Model. In: 12th Workshop on High Dimensional Data Analysis (HDDA-XII) 2023. Paris.

KLOPP, O. (2023). Denoising Over Network with Application to Descrete-time Epidemic Process. In: 2023 Graph Limits and Processes on Networks Reunion. Berkeley.

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

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

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

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

KLOPP, O. (2020). Link Prediction in Sparse Graphon Model. In: 2020 EURANDOM Workshop: Graph Limits.

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

KLOPP, O. (2019). Matrix Completion: Old and New. In: 2019 Structural Inference in High-Dimensional Models 2.

KLOPP, O. (2019). Sparse Network Estimation. In: 2019 The Power of Graphs in Machine Learning and Sequential Decision -making.

KLOPP, O. (2019). Sparse Network Estimation. In: High dimensional probability and algorithms.

KLOPP, O. (2019). Modèles de réseaux parcimonieux. In: 2019 Colloquium de Montpellier.

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

KLOPP, O. and VERZELEN, N. (2018). Optimal Graphon Estimation in Cut Distance. In: 27th Nordic Conference in Mathematical Statistics (NORDSTAT) 2018.

KLOPP, O. and VERZELEN, N. (2018). Optimal Graphon Estimation in Cut Distance. In: Tercera jornada Franco-Chilena de Estadística.

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

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

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

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

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

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

KLOPP, O. (2017). Optimal graphon estimation in cut distance. In: The Foundations in Computational Mathematics Conference. Barcelona.

KLOPP, O. (2017). Optimal graphon estimation in cut distance. In: Statistics meets Stochastics 2. Moscow.

KLOPP, O. (2016). Confidence sets for matrix completion. In: Advances in nonparametric and high-dimensional Statistic. Frejus.

KLOPP, O. (2016). Matrix Completion. In: Multimedia Inpainting Workshop. Rennes.

KLOPP, O. (2016). Network models and sparse graphon estimation. In: NIPS workshop. Barcelona.

KLOPP, O. (2016). Oracle inequalities for network models and sparse graphon estimation. In: Joint Statistical Meeting. Chicago.

KLOPP, O. (2016). Oracle inequalities for network models and sparse graphon estimation. In: 3rd ISNPS conference. Avignon.

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

KLOPP, O. (2015). 1-bit Matrix Completion. In: Indian Russian Conference in Statistics and Probability. Delhi.

KLOPP, O. (2015). Oracle inequalities for network models and sparse graphon estimation. In: Meeting in Mathematical Statistics. Frejus.

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

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

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

Press

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

OTHER RESEARCH ACTIVITIES

Associate Editor

Since 2026 Computational Statistics and Data Analysis

Editorial Board Membership

Since 2025 Annals of Statistics

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

Organisation of a conference

2025 New Developments in the Theory and Methodology of Graph Neural Networks, NITMB InstituteNITMB Institute, United States of America

2024 - 2026 Meeting in Mathematical Statistics, CIRM, France

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

2017 Co-organizer of Working Group on Risk, ESSEC Business School, France

PhD Supervision

2022 S. GAUCHER, Thesis co-director

TEACHING EXPERIENCE

2020 Statistical Inference, ESSEC Business School, France

2019 Modelisation Statistiques, ESSEC Business School, France

2017 Big Data Analytics, ESSEC Business School, France

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