



ECONOMICS, FINANCE, CONTROL & LAW

Hans-Jörg Von Mettenheim

Full Professor of Quantitative Finance and Risk Management

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Biography

Hans-Jörg Henri von Mettenheim is a Professor and Director of the Chair for Quantitative Finance and Risk Management at IPAG Business School, Paris. He holds a Ph.D. in economics (summa cum laude) from the Leibniz University of Hanover, Germany. He has published in peer-reviewed journals and leading information systems conferences on topics as diverse as quantitative trading strategies, time series forecasting and modeling, artificial intelligence, especially artificial neural networks, and energy economics. He is Co-editor-in-Chief of the *Journal of Forecasting* and secretary general and founding member of the *Forecasting Financial Markets Association*.

Education

2013: Successful evaluation of professorship

2009: Dr. rer. pol. (equivalent PhD) (Dissertation Advanced Neural Networks: Finance, Forecast, and Other Applications)

2008: Dr. rer. pol. (equivalent PhD) (Dissertation Advanced Neural Networks: Finance, Forecast, and Other Applications, grade summa cum laude)

2003: Diploma (equivalent MBA) in Economics (Thesis: Development of Coarse Grained Parallelization for the Neurosimulator FAUN 1.0 and Applications to Exchange Rate Forecasting)

Teaching Areas

- Asset Management,
 - Financial Risk Management,
 - Financial Management
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Research Areas

- Decision Support Systems in Business and Management
 - Artificial Intelligence applied to Finance and Investing
 - Machine Learning with Focus on Artificial Neural Networks
 - Complex, Dynamic, Non-Linear Models
 - Algorithmic Trading Systems
 - High-Performance Computing
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Professional experiences

2010-2016: Professor for Decision Support Systems, School of Economics (Leibniz University of Hanover)

2013-2014: Administrator of Full Professorships for Macroeconomics, financial markets and Full Professorship of Banking and finance (Leibniz University of Hanover)

Selected publications

- Goutte S., Klotzner K., Le H.-V., von Mettenheim H.-J. (2024). Forecasting photovoltaic production with neural networks and weather features. *Energy Economics*, 139. <https://doi.org/10.1016/j.eneco.2024.107884>
- Karathanasopoulos, A., Lo, C. C., Sovan, M., Osman, M., von Mettenheim, H. J., & Skander, S. (2024). A multi-objective optimization metaheuristic hybrid technique for forecasting the electricity consumption of the UAE: A grey wolf approach. *Journal of Forecasting*, Volume 44 (Issue 1), 242-252. <https://doi.org/10.1002/for.3187>
- Fogel, P., Geissler, C., J. Von Mettenheim, H., & Luta, G. (2023). Applying non-negative tensor factorization to centered data. *Bankers, Markets & Investors*, 174 (3), 2-13. <https://www.cairn.info/revue-bankersmarkets-et-investors-2023-3-page-2.htm>
- Goutte, S., Grosse, R., Le, H. V., Liu, F., & Von Mettenheim, H. J. (2023). Portfolio management with ESG news sentiment. *Bankers, Markets & Investors*, 1-2 (172-173), 72-84. <https://www.cairn.info/revue-bankersmarkets-et-investors-2023-1-page-72.htm>
- Goutte, S., Le, H. V., Liu, F., & Von Mettenheim, H. J. (2023). Deep learning and technical analysis in cryptocurrency market. *Finance Research Letters*, 54, 103809. <https://doi.org/10.1016/j.frl.2023.103809>
- Le, V. H., von Mettenheim, H. J., Goutte, S., & Liu, F. (2022). News-based sentiment: Can it explain market performance before and after the Russia-Ukraine conflict?. *The Journal of Risk Finance* (ahead-of-print).
- Tholl, J., Schwarzbach, C., Pittalis, S., & von Mettenheim, H. J. (2020). Bank funding and the recent political development in Italy: What about redenomination risk?. *International Review of Law and Economics*, 64, 105932.
- Nguyen, D. K., Sensoy, A., Vo, D. T., & von Mettenheim, H. J. (2021). Does short-term technical trading exist in the Vietnamese stock market? *Borsa Istanbul Review*, 21(1), 23-35.
- Gleue, C., Eilers, D., von Mettenheim, H. J., & Breitner, M. H. (2019). Decision support for the automotive industry: Forecasting residual values using artificial neural networks. *Business & Information Systems Engineering*, 61, 385-397.
- Dress, K., Lessmann, S., & von Mettenheim, H. J. (2018). Residual value forecasting using asymmetric cost functions. *International Journal of Forecasting*, 34(4), 551-565.
- Government Bond Yield Spreads in the Eurozone: Empirical Evidence from Better Days, to appear in *Quantitative Finance*, 2018 (with Tobias Basse, Christoph Wegener, Frederik Kunze).
- Liu, F., Pantelous, A. A., & von Mettenheim, H. J. (2018). Forecasting and trading high frequency volatility on large indices. *Quantitative Finance*, 18(5), 737-748.
- Gleue, C., Eilers, D., von Mettenheim, H. J., & Breitner, M. H. (2017). Decision support for the automotive industry: forecasting residual values using artificial neural networks.
- Wegener, C., Basse, T., Kunze, F., & von Mettenheim, H. J. (2016). Oil prices and sovereign credit risk of oil-producing countries: an empirical investigation. *Quantitative Finance*, 16(12), 1961-1968.
- Wegener, C., von Spreckelsen, C., Basse, T., & von Mettenheim, H. J. (2016). Forecasting government bond yields with neural networks considering cointegration. *Journal of Forecasting*, 35(1), 86-92.
- Von Spreckelsen, C., Von Mettenheim, H. J., & Breitner, M. H. (2014). Steps towards a high-frequency financial decision support system to pricing options on currency futures with neural networks. *International Journal of Applied Decision Sciences*, 7(3), 223-238.
- Von Spreckelsen, C., von Mettenheim, H. J., & Breitner, M. H. (2014). Real-time pricing and hedging of options on currency futures with artificial neural networks. *Journal of Forecasting*, 33(6), 419-432.
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