7th March 2024

CURRICULUM VITAE

Photo: Axel Stephan, Hochschulverband

Name:	**OSTAP OKHRIN**
Address:	Chair of Statistics and Econometrics esp. Transportation Institute of Economics and Transport School of Transportation Technische Universität Dresden Wuřzburger-Str. 35, Room 125, D-01187 Dresden, Germany
FON	+49 351 463 36802
FAX	+49 351 463 36809
Email	ostap.okhrin@tu-dresden.de

Birth date and place: May 23, 1984; Lviv, Ukraine
Marital status: married to Dr. Iryna Okhrin since Sep. 2007
(daughter born in Dec. 2011, son born in Jun. 2013)
Citizenship: German

Languages native Ukrainian, fluent in English, German, some Polish

PROFESSIONAL POSITIONS – WERDEGANG

2022 –	Member of the Review Board (Fachkollegiat) of DFG (Deutsche Forschungsgemeinschaft, German Science Foundation) 407-04 Traffic and Transport Systems, Intelligent and Automated Traffic
2021 –	Member of the Board of DStatG (Deutsche Statistische Gesellschaft, German Statistical Society)
Mar. 2015 –	*Professor* (W3) of Statistics and Econometrics esp. Transportation, Faculty of Transportation, Technische Universität Dresden, Germany
Apr. 2014 – Feb. 2015	*Associate Professor* (W2) at the Chair of Statistics, Humboldt-Universität zu Berlin, Germany
Apr. 2008 – Mar. 2014	*Assistant Professor* (W1) at the Chair of Statistics, Humboldt-Universität zu Berlin, Germany
Feb. 2006 – Mar. 2008	*Research Fellow* at the Department of Statistics, European University Viadrina, Frankfurt (Oder), Germany

EDUCATION – AUSBILDUNG

Feb. 2008 Ph.D. in Economics with *summa cum laude*
European University Viadrina, Frankfurt (Oder), Germany
Title: "*Hierarchical Archimedean Copula: Structure Determination, Properties, Applications*"
Supervisor: Prof. Dr. Wolfgang Schmid

June 2005 M.Sc. in Statistics with *summa cum laude*
Ivan Franko National University of Lviv, Ukraine
Title: "*Asymptotic behavior of the S-stopped branching processes with the countable number of types of particles*"
Supervisor: Prof. Dr. Yaroslav Yeleyko

June 2004 Bachelor in Mathematics
Ivan Franko National University of Lviv, Ukraine
Supervisor: Prof. Dr. Yaroslav Yeleyko

June 2000 Lviv Academic Gymnasium, Ukraine

PROF. ACTIVITIES – BERUFL. TÄTIGKEITEN

TEDx Dresden talk: "*How Statistics Supports our Intuition*" (https://youtu.be/V3fSVFcp850)

Head of the sub/projects

2023–2024 "*Deep Understanding of Driving Behaviour in Lane Free Mixed Traffic to Optimize its Efficiency*", SPARC – Scheme for Promotion of Academic and Research Collaboration (50K Euro, Indian PI V. Kanagaraj, G. Asaithambi, German Co-PI M. Treiber)
2023–2026 "*Weiterentwicklung der Verkehrssimulation PERSIST – PERSIST+*", BAW - Bundesanstalt für Wasserbau (257K Euro)
2023–2026 "*Konzeptionelle Vorbereitung der modellhaften Erprobung wasserbaulicher Optionen zur Sicherstellung zuverlässig kalkulierbarer Transportbedingungen am Rhein bei Niedrigwasser - NWRhein*", BAW - Bundesanstalt für Wasserbau (505K Euro)
2022–2025 *"Realized Higher Moments and Realized Distributional Forecasts – ReaDi"*, DFG (225K Euro)
2021–2024 *"Enhancing Traffic Flow understanding by Two-Dimensional Microscopic Models – ETF2D"*, DFG (with M. Treiber, 320K Euro)
2019–2023 "*Program to Extend Research and Simulation of Inland Ship Traffic – PERSIST*", BAW - Bundesanstalt für Wasserbau (450K Euro)
2018–2021 as co-PI for "*Optimierte Continuous Descent Operations unter unsicheren Umwelt- und Missionsbedingungen*" DFG, (PI Prof. Fricke, 500K Euro)
2016 great!ipid4all through DAAD with Prof. Dr. Durante (Uni Bolzano, Italy)
2016 Dresdner Senior Fellowship for Prof. Peter X.-K. Song, PhD (University of Michigan, USA)
2013–2015 Project "*Copulae*" in IRTG 1792 "*High Dimensional Non Stationary Time Series*"
2011–2012 "*Development of the Dynamic Marketmodell – F249*", DTelekom (50K Euro)
2008–2015 "*Copulae in Finance*" in the *C.A.S.E. – Center for Applied Statistics and Economics*
2008–2016 B10: "*Dynamic Copula Models*" in the CRC 649, DFG (150K Euro)

Co-Editor with M. Massmann of the "*SpringerBriefs in Applied Statistics and Econometrics*", `https://www.springer.com/series/16080`

Associate Editor

2024– *Journal of Multivariate Analysis*
2019– *Digital Finance*
2010– *AStA Advances in Statistical Analysis*
2011– *Computational Statistics*
2015–2020 Editorial Review Board of *Frontiers in Applied Mathematics and Statistics*
2015– Editorial Board of *Dependence Modeling*

Guest Editor of Special Issues

"Copula Modeling from Abe Sklar to the present day" in *Journal of Multivariate Analysis* (with Ch. Genest and T. Bodnar), 2022
"High-Dimensional and Multivariate Statistical Inference" in *Theory of Probability and Mathematical Statistics* (with T. Bodnar), 2022
"Applicable Semiparametrics" in *Computational Statistics* (with S. Trück), 2015
"Copulae" in *Statistics and Risk Modeling*, 2013

Self-administration

2022– Member of the Advisory Board of the Rectorate in Research (Forschungsbeirat), TUD
2022– Chairman of the Board of Examiners at the Faculty of Transportation (Prüfungsausschussvorsitzender), TUD
2020– Member of the Doctoral Committee (Promotionsausschuss), TUD
2017– Coordinator cooperation TU Dresden - SWUFE, Chengdu, China
2016–2018 Member of the Faculty Board (Fakultätsrat), TUD
2016– Representative of the Faculty in the Internationalization Work Group, TUD
2011–2014 Head of the Local Electorial Board in School of Business and Economics, HUB
2013–2015 Coordinator cooperation HU Berlin - ENSAE Paris, ENSAI Rennes

Co-organizer of the

Conference on Reinforcement Learning, TUD, September 2022
Statistische Woche 2020, TUD, March, 2020 (online due to COVID-19)
Stochastik Tage 2020, TUD, March, 2020 (cancelled due to COVID-19)
Operations Research 2019, TUD, September, 2019
Statistical Bazar at DAGStat Conference, Munich, March 2019
2016, 2018 Session at CFE-CMStatistics
Co-responsible for Nachwuchsworkshops at Statistische Woche 2014–
Workshop on "*Stochastic Models, Statistics and their Application*", TUD, March, 2019
Workshop on "*Integration of Transportation, Statistics and Big Data*", TUD, July, 2017
Workshop on "*Big Data in Transport Management*" with J. Schönberger, TUD, June, 2017
Workshop on "*Applied Statistics*", Dresden, March, 2016
Dresden-Berlin Workshop on "*High-Dim. of Transport and Digital Economy*", TUD, October, 2015
Humboldt-Princeton Conference, Princeton, USA, November 2013
Section on "*Copulae*" in "*Applicable Semiparametrics*", Berlin, Germany, October 2013
Section on "*Statistics in Finance, Insurance and Banking*" in "*DAGStat 2013*", Freiburg, Germany
Copulae in Mathematical and Quantitative Finance, Cracow, Poland, July 2012
Märkische Schweiz Summer School on Statistics in Finance and Insurance, Berlin, May 2012
Section on "*Finanzstatistik*" in "*Statistische Woche 2011*", Leipzig, Germany
C.A.S.E. Distinguished Lecture Series 2011, Berlin, January 2011
Workshop on "*Copulae: Theory and Practice*", Berlin, December 2007
4th All-Ukr. "*Theor. and Appl. Aspects of the Analysis of the Fin. Systems*", Lviv, May 2005
3rd All-Ukrainian Scientific Conference for Graduate and Postgraduate, Lviv, Ukraine, April 2004

(External) advisor in selection committees

Professorship (W2) in Quantitative Methods, esp. Econometrics (with TT on W2), 2022, TUD, DE
Professorship (W2) in Big Data Analytics in Transportation (with TT on W3), 2020, TUD, DE
Assistant Professorship in Economic Statistics SECS-S/03, 2017, University Bozen/Bolzano, IT
Assistant Professorship in Quantitative Agrarökonomie, 2015, HU Berlin, DE

Scientific Committee of the

International Workshop on Computational Intelligence and Data Mining (WCIDM) 2016–, Slovakia
FEMIB2020– International Conferences on Finance Economics, Management and IT Business, Prague, Czech Republic
Copulae in Mathematical and Quantitative Finance, Crakow, Poland, July 2012
Humboldt-Copenhagen Conference, Berlin, Germany, March 2009

Member of the

2010-2015, BDPEMS – Berlin Doctoral Program in Economics & Management Science

2009-2015, commission of the *Master of Science in Statistics* (`www.stat.de`)

Verein für Socialpolitik – Ausschuss Ökonometrie, Hochschulverband (2008-2018), Deutsche Statistische Gesellschaft, Econometric Society, Society of Financial Econometrics

Referee

Econometrica, Journal of Econometrics, Journal of Applied Econometrics, Journal of the American Statistical Association, Journal of Business & Economic Statistics, Bernoulli, Journal of Multivariate Analysis, Transportation Research Series A, Statistics, Communications in Statistics - Theory and Methods, Quantitative Finance, Computational Statistics and Data Analysis, Journal of Time Series Analysis, Electronic Journal of Statistics, Nonlinear Analysis, Journal of Banking and Finance, etc.

Packages for `R`:

- `cran.r-project.org/web/packages/HAC` with A. Ristig, M. Waltz
- `cran.r-project.org/web/packages/gofCopula` with S. Trimborn, M. Waltz

PhD STUDENTS – NACHWUCHS

First advisor:

Manuel Schmid (TUD), *"The role of the higher moments in high-frequency data modelling"*, 27.10.2021, Second Advisor: Michael Rockinger, First job: KPMG

Stefanie Lösch (TUD), *"Environmental Awareness and Labour Market Tightness"*, 30.11.2020, Second Advisor: Bernhard Schipp, First job: aifinyo AG

Ya-Fei Xu (HU Berlin), *"High dimensional quantitative finance: dependence modeling and online surveillance"*, 01.02.2018, Second Advisor: Bernd Droge, First job: Data Scientist at TAL

Alexander Ristig (HU Berlin), *"High-Dimensional Time Series"*, 14.06.2015, Second advisor: Wolfgang K. Härdle, First job: PostDoc, Department of Statistics and Operations Research, University of Vienna.

Second advisor:

Hiroki Watanabe (TUD), *"Methodik zur Determinierung repräsentativer und relevanter Testszenarien für prädiktive Sicherheitsfunktionen"*, 22.03.2022, First advisor: Günther Prokop

Nicolas Frölich (TUD), *"Multiple Breakpoint Estimation for Structural Changes in Bernoulli Mixture Models with Application in Credit Risk"*, 02.09.2021, First advisor: Bernhard Schipp

Anastasija Tetereva (Uni. St. Gallen), *"Essays on Multivariate Modelling of Financial Markets Using Copula and Sentiment Networks"*, 19.04.2018, First advisor: Francesco Audrino

Benjamin Poignard (Dauphine Universite Paris), *"Approaches nouvelles des modéles GARCH multivaries en grande dimension"*, 15.06.2018, First advisor: Jean-David Fermanian

Stephan Stahlschmidt (HU Berlin), *Towards Causal Reasoning: Notes on Dimension Reduction, Graphical Models and Treatment Effects*, 12.12.2014, First advisor: Wolfgang K. Härdle

Zhiwei Shen (HU Berlin), *Challenges of Index-based Insurance in Agriculture*, 05.09.2014, First advisor: Martin Odening

Barbara Chorós-Tomczyk (HU Berlin), *"Copula Dynamics in Collateralized Debt Obligations"*, 14.08.2013, First advisor: Wolfgang K. Härdle

Elena Silyakova (HU Berlin), *Modelling Implied Correlation Dynamics*, 29.04.2013, First advisor: Wolfgang K. Härdle

Roman Timofeev (HU Berlin), *"Statistical Aspects of Stock Pricing and Risk Averse Behavior"*, 27.08.2010, First advisor: Wolfgang K. Härdle

Uwe Ziegenhagen (HU Berlin), *"Essays on the use of e-Learning in statistics and the implementation of statistical software"*, 20.03.2009, First advisor: Wolfgang K. Härdle

BOOKS – BÜCHER

Hierarchical Archimedean Copulas, *Springer*, 2024, Softcover ISBN: 978-3-031-56336-2, eBook ISBN: 978-3-031-56337-9 (with J. Górecki)

Stochastic Models, Statistics and Their Applications, *Springer*, 2017, Hardcover ISBN: 978-3-319-55335-1, eBook ISBN: 978-3-030-28664-4 (with A. Steland, E. Rafajlowicz, eds)

Basic Elements of Computational Statistics, *Springer*, 2017, Hardcover ISBN: 978-3-319-55335-1, eBook ISBN: 978-3-319-55336-8 (with W. K. Härdle, Y. Okhrin)

REFEREED PUBLICATIONS – REFERIERTE PUBLIKATIONEN

1. Robust path following on rivers using bootstrapped reinforcement learning, *Ocean Engineering*, 298, 117207, 2024, (with N. Paulig) DOI: 10.1016/j.oceaneng.2024.117207
2. Towards robust car-following based on deep reinforcement learning, *Transportation Research Part C: Emerging Technologies*, 104486, 2024 (with F. Hart and M. Treiber), DOI: 10.1016/j.trc.2024.104486
3. Enhanced method for reinforcement learning based dynamic obstacle avoidance by assessment of collision risk, *Neurocomputing*, 127097, 2024 (with F. Hart), DOI: 10.1016/j.neucom.2023.127097
4. Flight delay propagation inference in air transport networks using the multilayer perceptron, *Journal of Air Transport Management*, 102510, 2024 (with G. Chen, H. Fricke, and, J. Rosenow), DOI: 10.1016/j.jairtraman.2023.102510

5. Penalized estimation of hierarchical Archimedean copula, *Journal of Multivariate Analysis*, 105274, 2023 (with A. Ristig), DOI: 10.1016/j.jmva.2023.105274

6. Preface to the Special Issue "Copula modeling from Abe Sklar to the present day", *Journal of Multivariate Analysis*, 105280, 2023 (with Ch. Genest and T. Bodnar), DOI: 10.1016/j.jmva.2023.105280

7. Copula modeling from Abe Sklar to the present day, *Journal of Multivariate Analysis*, 105278, 2023 (with Ch. Genest and T. Bodnar), DOI: 10.1016/j.jmva.2023.105278

8. Plant Growth Stages and Weather Index Insurance Design, *Annals of Actuarial Science*, Volume 17, Issue 3, 2023, pp. 438–458 (with M. Odening and J. Zou), DOI: 10.1017/S1748499523000167

9. Spatial–temporal recurrent reinforcement learning for autonomous ships, *Neural Networks* 165, 2023, pp. 634–653 (with M. Waltz), DOI: 10.1016/j.neunet.2023.06.015

10. Vessel-following model for inland waterways based on deep reinforcement learning, *Ocean Engineering* 281, 2023, 114679 (with F. Hart and M. Treiber), DOI: 10.1016/j.oceaneng.2023.114679

11. Modified DDPG car-following model with a real-world human driving experience with CARLA simulator, *Transportation Research Part C: Emerging Technologies*146, 2023, 103987 (with D. Li), DOI: 10.1016/j.trc.2022.103987

12. Semiparametric estimation of the high-dimensional elliptical distribution, *Journal of Multivariate Analysis*, 105142, 2022 (with E. Liebscher), DOI: 10.1016/j.jmva.2022.105142

13. Labor market tightness and individual wage growth: evidence from Germany, *Journal for Labour Market Research*, 2022, 56:16 (with S. Brunow and S. Lösch), DOI: 10.1186/s12651-022-00322-7

14. Simulating the CIR and Heston Processes: Matching the First Four Moments, *Journal of Computational Finance*, 2022, (with M. Rockinger and M. Schmid), DOI: 10.21314/JCF.2022.022

15. Distributional properties of continuous time processes: from CIR to Bates, *AStA Advances in Statistical Analysis*, 2022, (with M. Rockinger and M. Schmid), DOI: 10.1007/s10182-022-00459-3

16. Maximum-Likelihood Estimation Using the Zig-Zag Algorithm, *Journal of Financial Econometrics*, 2022, 1–30, (with N. Hautsch and A. Ristig), DOI: 10.1093/jjfinec/nbac006

17. Vulnerability-CoVaR: investigating the cryptomarket, *Quantitative Finance*, 2022, (with M. Waltz and A. K. Singh), DOI: 10.1080/14697688.2022.2063166

18. Importance of Weather Conditions in a Flight Corridor, *Stats* 5, 2022, pp. 312–338, (with G. Chen, H. Fricke, and J. Rosenow), DOI: 10.3390/stats5010018

19. What Threatens Stock Markets More - the Coronavirus or the Hype Around it?, *International Review of Economics and Finance* 78, 2022, pp. 519–539, (with A. Nepp, J. Egorova, Z. Dzhuraeva, A. Zykov)

20. Optimization of Wiedemann-99 Model Parameters for Mixed Traffic Using Vehicular Trajectory Data, *Transportation Research Record*, (with A. Chaudhari, K. Srinivasan, B. Chilukuri and M. Treiber), 2021, DOI: 10.1177/03611981211037543

21. gofCopula: Goodness-of-Fit tests for copulae, *R Journal* 13:1, 2021, 467-498, DOI: 10.32614/RJ-2021-060 (with S. Trimborn and M. Waltz)

22. Infinitely Stochastic Micro Reserving, *Insurance: Mathematics and Economics* 100, 2021, DOI: 10.1016/j.insmatheco.2021.04.007 (with M. Maciak and M. Pešta)

23. Copulae: An Overview and Recent Developments, *WIREs Computational Statistics* e1557, 2021 DOI: 10.1002/wics.1557 (with J. Größer)

24. Outer power transformations of hierarchical Archimedean copulas: Construction, sampling and estimation, *Computational Statistics and Data Analysis*, 155, 2021, DOI: 10.1016/j.csda.2020.107109 (with J. Gorecki and M. Hofert)

25. Statistical modeling of the required space for inland vessels, *Communications in Statistics* 6(2), 2020, pp. 167–190, DOI: 10.1080/23737484.2020.1746934 (with N. Fischer)

26. Optimal Shrinkage Estimator for High-Dimensional Mean Vector, *Journal of Multivariate Analysis* 170, 2019, pp. 63-79, DOI: 10.1016/j.jmva.2018.07.004, (with T. Bodnar and N. Parolya)

27. Flexible HAR Model for Realized Volatility, *Studies in Nonlinear Dynamics & Econometrics* 23(3), 2019, DOI: 10.1515/snde-2017-0080 (with F. Audrino and C. Huang)

28. Index of Environmental Awareness through MIMIC Approach, *Papers in Regional Science*, 98, 2019, pp. 1419-1441, DOI: 10.1111/pirs.12420 (with D. Khakimova, S. Lösch, D. Wende, H. Wiesmeth)

29. Awareness of Climate Change: Difference Among Russian Regions, *Area Development and Policy* 4(3), 2019, pp. 284-307, DOI: 10.1080/23792949.2018.1514982 (with S. Lösch and H. Wiesmeth)

30. Optimal Pension System: Case Study, *Economics & Sociology* 11(1), 2018, pp. 267–292, DOI: 10.14254/2071-789X.2018/11-1/18 (with A. Nepp, V. Larionova, A. Sesekin)

31. Adaptive local parametric estimation of crop yields: Implications for crop insurance ratemaking, *European Review of Agricultural Economics* 45(2), 2018, pp. 173–203, DOI: 10.1093/erae/jbx028 (with Z. Shen and M. Odening)

32. Qui se ressemblent s'assemblent, *Accromath*, 13 (1), 2018, pp. 14-19 (with C. Genest and J.-F. Plante)

33. A Comparison Study of Pricing Credit Default Swap Index Tranches with Convex Combination of Copulae, *The North American Journal of Economics and Finance* 42, 2017, pp. 193–217, DOI: 10.1016/j.najef.2017.07.004 (with Y.-F. Xu)

34. The realized hierarchical Archimedean copula in risk modelling, *Econometrics* 5(2), 26, 2017, DOI: 10.3390/econometrics5020026 (with A. Tetereva)

35. Localising temperature risk, *Journal of the American Statistical Association*, 111 (516), 2016, pp. 1491–1508, DOI: 10.1080/01621459.2016.1180985 (with W. K. Härdle, B. López Cabrera, W. Wang)

36. Goodness-of-fit Test For Specification of Semiparametric Copula Dependence Models, *Journal of Econometrics*, 193, 2016, pp. 215-233, DOI: 10.1016/j.jeconom.2016.02.017 (with S. Zhang, Q. M. Zhou and P. X.-K. Song)

37. Managing Risk with a Realized Copula Parameter, *Computational Statistics and Data Analysis*, 100, 2016, pp. 131–152, DOI: 10.1016/j.csda.2014.07.011 (with M. R. Fengler).

38. A Semiparametric Factor Model for CDO Surfaces Dynamics, *Journal of Multivariate Analysis*, 146, 2016, pp. 151–163, DOI: 10.1016/j.jmva.2015.09.002 (with W. K. Härdle and B. Choroś-Tomczyk)

39. Can expert knowledge compensate for data scarcity in crop insurance pricing?, *European Review of Agricultural Economics*, 43(2), 2016, pp. 237–269, DOI: 10.1093/erae/jbv015 (with M. Odening and Z. Shen)

40. Lévy copulae for financial returns, *Dependence Modeling*, 4, 2016, pp. 288–305, DOI: 10.1515/demo-2016-0017

41. Hidden Markov structures for dynamic copulae, *Econometric Theory* 31(5), 2015, pp 981–1015, DOI: 10.1017/S0266466614000607 (with W. K. Härdle, W. Wang)

42. Editorial to the special issue on "Applicable Semiparametrics" of Computational Statistics, *Computational Statistics* 30(3), pp 641–646, 2015, DOI: 10.1007/s00180-015-0616-4 (with S. Trueck).

43. Modelling spatiotemporal variability of temperature, *Computational Statistics* 30(3), 2015, pp 745–766, DOI: 10.1007/s00180-015-0561-2 (with X. Cao, M. Odening and M. Ritter)

44. Estimation procedures for exchangeable Marshall copulas with hydrological application, *Stochastic Environmental Research and Risk Assessment* 29, 2015, pp 205–226, DOI: 10.1007/s00477-014-0866-7 (with F. Durante) (IF 1.961).

45. Hierarchical Archimedean Copulae: The HAC Package, *Journal of Statistical Software* 58(4), 2014, pp 1–20, (with A. Ristig) (IF 2.647, http://www.jstatsoft.org/v58/i04)

46. Conditional Least Squares and Copulae in Claims Reserving for a Single Line of Business, *Insurance: Mathematics and Economics* 56, 2014, pp 28–37, DOI: 10.1016/j.insmatheco.2014.02.007 (with M. Pešta)

47. Modelling general dependence between commodity forward curves, *Energy Economics* 43, 2014, pp 284–296, DOI: 10.1016/j.eneco.2014.02.019 (with M. Zolotko)

48. Determining the structure and estimation of hierarchical Archimedean copulas, *Journal of Econometrics* 173 (2), 2013, pp 189-204, DOI: 10.1016/j.jeconom.2012.12.001 (with Y. Okhrin and W. Schmid)

49. Editorial to the special issue on Copulae of Statistics & Risk Modeling, *Statistics and Risk Modeling* (former Statistics and Decisions), 30(4), 2013, pp 281–286, DOI: 10.1524/strm.2013.9014.

50. Dynamic Structured Copula Models, *Statistics and Risk Modeling* (former Statistics and Decisions), 30(4), 2013, pp 361–388, DOI: 10.1524/strm.2013.2004 (with W. K. Härdle, Y. Okhrin)

51. Valuation of Collateralized Debt Obligations with Hierarchical Archimedean Copulae, *Journal of Empirical Finance* 24, 2013, pp 42–62, DOI: 10.1016/j.jempfin.2013.08.001 (with W. K. Härdle and B. Choroś-Tomczyk)

52. Properties of hierarchical Archimedean copulas, *Statistics and Risk Modeling* (former Statistics and Decisions) 30 (1), 2013, pp 21-53, DOI: 10.1524/strm.2012.1071 (with Y. Okhrin and W. Schmid)

53. Systemic Weather Risk and Crop Insurance: The Case of China, *Journal of Risk and Insurance* 80(2), 2013, pp 351–372, DOI: 10.1111/j.1539-6975.2012.01476.x (with M. Odening and W. Xu)

54. On the Generating Functional of the special case of S-Stopped Branching Processes, *Visn. L'viv. Univ., Ser. Mekh.-Mat. (Bulletin of the Lviv University)*, Series in Mechanics and Mathematics: 74, 2011, pp. 157-167 (preprint available at http://arxiv.org/abs/1108.1675)

55. On the Systemic Nature of Weather Risk. *Agricultural Finance Review*: 70(2), 2010, pp. 267-284 (with M. Odening, G. Filler and W. Xu).

56. De copulis non est disputandum, *AStA - Advances in Statistical Analysis*: 94(1), 2010, pp. 1-31 (with W. K. Härdle)

57. Asymptotic behavior of the S-stopped branching processes with countable state space, *Visn. L'viv. Univ., Ser. Mekh.-Mat. (Bulletin of the Lviv University), Series in Mechanics and Mathematics: 67*, 2007, pp. 119-129. (with Y. Yeleyko and I. Kyrychynska, preprint available at http://arxiv.org/abs/1108.1513)

OTHER PUBLICATIONS – ANDERE PUBLIKATIONEN

1. Vision-based DRL Autonomous Driving Agent with Sim2Real Transfer, Proceedings of the *IEEE Intelligent Transportation Systems Society Conference* 2023 (with D. Li)
2. A Nonparametric Multivariate Statistical Process Control Chart Based on Change Point Model, in: Zh. Zhang, K.-H. Yuan, Y. Wen and J. Tang (eds.), *New Developments in Data Science and Data Analytics*, *Proc. of the 2019 Meeting of International Society for Data Science and Analytics*, 2019 (with Y.-F. Xu)
3. Awareness of climate change (focus on the Russian Arctic zone), *Proceedings of the International Research Workshop on Information Technologies and Mathematical Modeling for Efficient Development of Arctic Zone*, Yekaterinburg, Russia, April 19-21, 2018, pp 38–42, (with S. Lösch and H. Wiesmeth)
4. Fahrdynamikbasierte Entscheidungsmodelle zur mikroskopischen Simulation des Verkehrsflusses auf Binnenwasserstraßen, *Bundesanstalt für Wasserbau (BAW) (publisher): Wasserbauliche Herausforderungen an den Binnenschifffahrtsstraßen. Karlsruhe: Bundesanstalt für Wasserbau (BAW)*, pp. 61–66, 2017, URL: https://henry.baw.de/handle/20.500.11970/104383 (with N. Fischer and M. Treiber).
5. Diffusion of Environmental Awareness, *Diffusion Fundamentals* 30, 2017, pp. 1–16 (with S. Lösch and H. Wiesmeth)
6. Copulae in High Dimensions: An Introduction, in: C. Chen, W. K. Härdle and L. Overbeck (eds.), *Applied Quantitative Finance*, third ed. (2017), Springer Verlag, (with A. Ristig and Y. Xu), pp. 247–277, DOI: 10.1007/978-3-662-54486-0_13
7. Can expert knowledge compensate for data scarcity in crop insurance pricing?, Selected paper AAEA Annual Meeting 2013, Washington D.C. (with Z. Shen and M. Odening)
8. Modeling Time-Varying Dependencies between Positive-Valued High-Frequency Time Series, in: P. Jaworski, F. Durante and W.K.Härdle (eds.), *Copulae in Mathematical and Quantitative Finance*, (2013), Springer Verlag. (with A. Ristig and N. Hautsch)
9. HMM and HAC, *Advances in Intelligent Systems and Computing* Volume 190, 2013, pp 341-348, DOI 10.1007/978-3-642-33042-1_37 (with W. K. Härdle and W. Wang)
10. CDO Pricing with Copulae, *In Bulletin of the International Statistical Institute, 57th Session Durban Vol. 57. Bulletin of the International Statistical Institute*, 2009, (with B. Choroś and W. K. Härdle)
11. Fitting high-dimensional Copulae to Data, in: J.-C. Duan, J. E. Gentle, and W. K. Härdle (eds.), *Handbook of Computational Finance*, (2011) Springer Verlag, pp. 469-503.
12. Modeling Dependencies with Copulae, in: W. K. Härdle, N. Hautsch and L. Overbeck (eds.), *Applied Quantitative Finance*, second ed. (2008), Springer Verlag, pp. 3-36. (with W. K. Härdle and Y. Okhrin)
13. Portfolio selection based on the internal yield requirement, proceedings of *7th international workshop for young mathematicians: Applied Mathematics*, Cracow, 2005, pp. 131-149 (with I. Yatsyshynets and Y. Yeleyko)

14. Renewal theory and stock returns, *Applied statistics. Actuarial and Financial Mathematics. #1-2*, pp. 217-218, 2004 (with Y. Yeleyko, in ukrainian)

CONFERENCES – KONFERENZEN

Sep. 2023	Statistische Woche, Dortmund, DE
Aug. 2023	COMPSTAT, London, UK
Mar. 2023	German Statistics and Probability Days, Duisburg, DE
Mar. 2023	Workshop on "Digitalisierung in der Binnenschifffahrt", Karlsruhe, DE
Dec. 2022	Workshop on Maritime Autonomous Surface Ships (MASS), EMSA, Lisbon, PT
Oct. 2022	Workshop on "Statistics of Stochastic Processes in Discrete and Continuous Time", Kyiv, UA
Sep 2022	Statistische Woche, Münster, DE
May 2022	EcoSta 2022, Kyoto, JP
May 2022	Conference "Intrinsic Time in Finance", Konstanz, DE
Mar. 2022	Invited Speaker at "Big and Smart Data Analytics in Finance", Freiburg, DE
Nov. 2021	Science on the Rocks in Clausthal-Zellerfeld, DE
Jul. 2021	Summer School of IRTG 1792 in Buckow, DE
Jun. 2021	Invited Speaker at "Modern Stochastics: Theory and Applications V" Kyiv, UA
Sep. 2020	Invited speaker at the Urban Traffic Conference (due to COVID online), Frankfurt, DE
Feb. 2020	Jahrestreffen des Ökonometrischen Ausschusses des VfS, Rauischholzhausen, DE
Jun. 2019	EcoSta 2019, Taichung, TW
Jun. 2019	Vine Copulas and their Applications, Munich, DE
Mar. 2019	Statistics under one Umbrella, Munich, DE
Dec. 2018	CFE-CMStatistics 2018, Pisa, IT
Sep. 2018	International Seminar on the Frontiers of Data Science at SWUFE in Chengdu, CN
Sep. 2018	Workshop on Dependence Modelling, Aegina, GR
Sep. 2018	Statistische Woche, Linz, AT
Mar. 2018	Verkehrswissenschaftliche Tage: Grenzloser Verkehr, Dresden, DE
Oct. 2017	Sino German workshop on "DEDA - Digital Economy & Decision Analytics", Xiamen, CN
Sep. 2017	Invited Speaker at *Computational Intelligence and Data Mining - 5th workshop*, Martin, SK
Jul. 2017	Workshop on *"Integration of Transportation, Statistics and Big Data"*, Dresden, DE
Jul. 2017	*"Copulas and Their Applications. 75th birthday of Prof. Roger B. Nelsen"*, Almeria, ES
Dec. 2016	CFE-CMStatistics 2016, Sevilla, ES
Oct. 2016	Abschlußkoloquium CRC 649, Berlin, DE
Oct. 2016	Workshop on "*Statistics in Finance and Process Monitoring*", Frankfurt/Oder, DE
Sep. 2016	Ferienakademie, Sarntal/Southtirol, IT
Sep. 2016	Salzburg workshop on dependence models and copulas, Salzburg, AT
Sep. 2016	40th Annual Meeting of the Italian Association for Mathematics Applied to Economic and Social Sciences (AMASES), Catania, IT
Sep. 2016	Statistische Woche, Augsburg, DE
Jul. 2016	Summer Research Workshop: *Quantitative Methods in Economics*, Cottbus, DE
Jun. 2016	9th Annual SoFiE Conference, HK
May 2016	Dependence modeling in Finance, Insurance and Environmental Science, Munich, DE
Mar. 2016	DAGStat 2016, Göttingen, DE
Dec. 2015	Invited talk at the CFE-ERCIM, London, UK
Oct. 2015	Dresden-Berlin Workshop on "*High-Dimensionality of Transport and Digital Economy*", Dresden, DE
Okt. 2015	Viadrina Days on Empirical Economics, Frankfurt/Oder, DE
Sep. 2015	Statistische Woche 2015, Hamburg, DE

Jul. 2015	WISE-CASE Workshop on Econometrics and Statistics, Xiamen, CN
Jun. 2015	8th Annual SoFiE Conference, Aarhus, DK
Apl. 2015	Workshop on "*Copulae: on the crossroads of mathematics and economics*", Oberwolfach, DE
Dec. 2014	CFE-ERCIM, Pisa, IT
Oct. 2014	Humboldt-Aarhus-Xiamen Workshop 2014, Berlin, DE
Sep. 2014	Joint Meeting of the German Mathematical Society (DMV) and the Polish Mathematical Society (PTM), Poznan, PL
Sep. 2014	Statistische Woche 2014, Hannover, DE
Aug. 2014	21st International Conference on Computational Statistics, Genf, CH
Jul. 2014	Workshop "*Non- and Semiparametric Volatility and Correlation models*", Paderborn, DE
May 2014	Workshop "*Methods and Challenges in Financial Risk Measurement*", Kloester Druebeck, DE
Nov. 2013	Princeton-Humboldt Conference, Princeton, US
Nov. 2013	Invited talk at "*DyMaMo Konferenz 2013*", organized by Deutsches Telekom AG, Bonn, DE
Sep. 2013	Statistische Woche 2013, Berlin, DE
Sep. 2013	Workshop "*Copula modeling: New challenges and techniques*", München, DE
Apr. 2013	MCTN Conference, Konstanz, DE
Dec. 2012	Invited talk at the CFE-ERCIM 2012, Oviedo, ES
Sep. 2012	6th International Conference on Soft Methods in Probability and Statistics, Konstanz, DE
Sep. 2012	*International Conference dedicated to 120-th anniversary of STEFAN BANACH*, Lviv, UA
Jul. 2012	*Copulae in Mathematical and Quantitative Finance*, Cracow, PL
May 2012	Märkische Schweiz Summer School on *Statistics in Finance and Insurance*, Bukow, DE
May 2012	*Methods and Challenges in Financial Risk Measurement 2012*, Kloester Druebeck, DE
Apr. 2012	Workshop on "*Risk and Dependence in Economics and Finance*"', Bolzano, IT
Jan. 2012	Energy Finance Workshop, Stolberg (Harz), DE
Oct. 2011	Workshop on "*Statistical Analysis of Financial Data*", Rijeka, HR
Sep. 2011	Statistische Woche 2011, Leipzig, DE
Aug. 2011	ISI 2011, Dublin, IE
Jun. 2011	IME 2011, Trieste, IT
Jun. 2011	ASMDA 2011, Rome, IT
May 2011	Invited talk at "4th Workshop on Vine Copula Distributions and Applications", München, DE
Jan. 2011	Risk Calibration Workshop, Institute of Statistical Science, Academia Sinica, Taipei, TW
Dec. 2010	Invited talk at the CFE-ERCIM 2010, London, UK
Sep. 2010	Statistische Woche 2010, Nuremberg, DE
Jul. 2010	Symposium on "*High-Dimensional Data in Empirical Finance*", Dortmund, DE (discussant)
Jun. 2010	Symposium on "*Computational Finance*", SG (session chair)
Mar. 2010	DAGStat 2010, Dortmund, DE
Mar. 2010	Workshop on "*High-Dimensional Data Analysis in Economics*", Zagreb, HR
Oct. 2009	Perceiving and Measuring Financial Risk: Credit, Energy and Illiquidity, Princeton, US (session chair)
Oct. 2009	Statistische Woche 2009, Wuppertal, DE
Sep. 2009	Workshop on "*Copula Theory and its Applications*", Warsaw, PL
Jul. 2009	The 64th European Meeting of the Econometric Society and the 24th Annual Congress of the European Economic Association, EEA-ESEM 2009, Barcelona, ES
Jul. 2009	Invited talk at the *International Symposium on Risk Management and Derivatives 2009*, Xiamen, CN
Dec. 2008	Invited talk at the 4^{th} *World Conference of the IASC 2008*, Yokohama, JP
Oct. 2008	International Conference on Price, Liquidity, and Credit Risk, Konstanz, DE
Sep. 2008	First Summer School on Copulas, Linz, AT
Mar. 2008	8^{th} German Open Conference on Probability and Statistics, Aachen, DE (session chair)
Dec. 2007	Workshop on "*Copulae: Theory and Practice*", Berlin, DE

May 2007	Radon Workshop on Financial and Actuarial Mathematics for Young Researchers, Linz, AT
Mar. 2007	DAGStat 2007, Bielefeld, DE
Sep. 2005	7th International Workshop for Young Mathematicians: Applied Mathematics, Cracow, PL
May 2005	4th All-Ukrainian Scientific Conference for Graduate and Postgraduate "*Theoretical and Applied Aspects of the Analysis of the Financial Systems*", Lviv, UA
Apr. 2004	Economics in the Postcommunist Countries under Globalization, Lviv, UA
Apr. 2004	3rd All-Ukrainian Scientific Conference for Graduate and Postgraduate, Lviv, UA
Apr. 2004	7th All-Ukrainian Students Scientific Conference in Programming and Applied Mathematics, Lviv, UA
Mar. 2004	Problems and Perspectives of the Ukrainian's Finance-Credit System, Lviv, UA

RESEARCH VISITS – FORSCHUNGSAUFENTHALTE

3-16.12.2022	Dep. of Applied Finance, Macquarie University, hosted by A. Singh, Sydney, Australia
12-17.10.2020	Research in Pairs in Mathematical Research Institute Oberwolfach (MFO) with M. Pesta, I. Mizera and M. Maciak, DE
24-30.11.2019	Statistics Group, TU Delft, hosted by N. Parolya, NL
13-16.11.2019	Faculty of Math. and Stat., University of St. Gallen, hosted by M. Fengler, CH
7-12.11.2019	Departement of Finance, University of Lausanne, hosted by M. Rockinger, CH
16-22.07.2019	SWUFE Global Academy, Chengdu, China
1-8.07.2018	SWUFE Global Academy, Chengdu, China
1-21.10.2018	Dep. of Applied Finance, Macquarie University, hosted by A. Singh, Sydney, Australia
21–24.06.2017	Institut für Statistik, Leibniz Universität Hannover, hosted by N. Parolya, Hannover, Germany
03–10.06.2017	Chair of Economics and Econometrics, University Konstanz, hosted by R. Halbleib, W. Pohlmeier, Konstanz, Germany
17–25.06.2016	Center of Statistical Research in Southwestern University of Finance and Economics, Hosted by S. Zhang, Chengdu, China
1–7.09.2014	Department of Statistics and Operations Research, Univertsität Wien, hosted by N. Hautsch, Vienna, Austria
10–17.03.2013	Department of Mathematics, Instituto Superior Técnico Lisbon, hosted by M. C. Morais, Lisbon, Portugal
3–10.03.2013	Economics Department, Universidad Carlos III de Madrid, hosted by A. Taamouti, Madrid, Spain
29.09–05.10.2012	Faculty of Economics at the University of Rijeka, hosted by S. Zikovic, Rijeka, Croatia
15–25.05.2012	Stevanovitch Center for Financial Mathematics at the University of Chicago, hosted by P. Mykland, Chicago, USA
7–22.04.2012	Chair of Statistics, Universität Augsburg, hosted by Yarema Okhrin, Augsburg, Germany
1–31.03.2012	Faculty of Biostatistics, University of Michigan, hosted by Peter X. Song, Ann Arbor, USA
21.02–22.03.2011	ORFE, Princeton University, hosted by J. Fan, Princeton, USA
10–21.01.2011	Academia Sinica, hosted by C.-D. Fuh, Taipei, Taiwan

SEMINARS – SEMINARE

Mai. 2023	School of Finance, University of Luxembourg, organized by M. Podolskij
Jun. 2019	Talk at "Centre de Recherche en Economie et Statistique" at CREST, organized by J.-M. Zakoian and C. Gourieroux, Paris, France
Nov. 2018	Talk at Econometric Institute, Erasmus University of Rotterdam, organized by M. Grith, Netherlands
Nov. 2018	Research Kolloquium in Economics an der Freien Universität Berlin, organized by T. Schmid and U. Rendtel, Berlin, Germany

Sep. 2018	Statistics machinElEarning Datascience in Singapore, organized by Y. Chen, Singapore
Jul. 2017	Talk at Research Factory at the Europa-University Viadrina, organized by Ph. Otto, Frankfurt (Oder), Germany
Jun. 2017	Faculty Seminar at Chair of Economics and Econometrics, University Konstanz, organized by R. Halbleib, W. Pohlmeier, Konstanz, Germany
Mar. 2017	Seminar at CREST, organized by J.-D. Fermanian, J.-M. Zakoian, Ch. Gourieroux, Paris, France
Mar. 2017	Seminarium, Matematisk statistik, University of Stockholm, organized by T. Bodnar, Stockholm, Sweden
Nov. 2016	Seminar at the Research Center for Statistics (RCS) at the Geneva School of Economics and Management, University of Geneva, organized by D. la Vecchia, Geneva, Switzerland
Nov. 2016	Talk at the Polish Academy of Sciences, organized by T. Rychlik and P. Jaworski, Warsaw, Poland
Mai. 2016	Seminar at the Chair of Econometrics and Statistics, organized by M. Massmann, WHU – Otto Bensheim School of Management, Vallendar
Apr. 2016	Crash course on "Copulae", organized by W. K. Härdle, HU Berlin, Germany
Jun. 2015	Seminar at the Chair of Econometrics, organized by D. Bauer, Uni Bielefeld, Germany
Apr. 2015	Brown Bag Seminar, TU Dresden, Germany
Nov. 2014	Presentation at the Collaborative Research Centre 823, organized by D. Wied, TU Dortmund, Germany
Mar. 2012	Statistics Seminar in the IOMS/Statistics Group, NYU Stern School of Business, organized by R. Deo, New York, USA
Feb. 2011	Brown Bag Seminar at the University of Michigan, organized by P. X. Song, Ann Arbor, USA
Feb. 2011	Financial Mathematics Seminar at The Stevanovitch Center for Financial Mathematics at the University of Chicago, organized by P. Mykland, Chicago, USA
Feb. 2011	Research in Econometrics Seminar at Harvard University, Organized by R. Ibragimov, G. Chamberlain, Cambridge, USA
Jan. 2011	Seminar at the Sun Yat-Sen University, Organized by M.-H. Guo, Kaohsiung, Taiwan
Jan. 2011	2011 NCTS & CMMSC Seminar at the Hsinchu Unversity, Organized by H. HS Lu, Hsinchu, Taiwan
Nov. 2010	Seminar at the University Bielefeld, Organized by G. Kauermann, Bielefeld, Germany
Jun. 2010	Seminar at the National University of Kaohsiung, organized by R.-B. Chen, Kaohsiung, Taiwan
Jun. 2010	Seminar at the Renmin University of China, organized by M. Tian, Beijing, China
May 2010	"*Mathematical Koloquium*" at Carl von Ossietzky University of Oldenburg organized by T. Kneib, A. May, D. Pfeifer, Oldenburg, Germany
Mar. 2010	"*Quantitative Methods Seminar*" at Universität St.Gallen organized by M. Fengler, St. Gallen, Switzerland
Jul. 2009	Seminar at Hong Kong University of Science and Technology organized by Y.-K. Kwok, Hong Kong, China
Feb. 2009	"*Statistisch/ökonometrisches Seminar*" at Christian-Albrechts-Universität zu Kiel organized by H. Herwartz, R. Liesenfeld and V. Golosnoy, Kiel, Germany
Dec. 2008	"*Quantitativ Ökonomisches Colloquium*" at Freie Universität Berlin organized by U. Rendtel, Berlin, Germany
Jul. 2008	Seminar "*Finanz- und Versicherungsmathematik*" of the LMU and TU organized by C. Czado, C. Klüppelberg and R. Zagst, Munich, Germany
May 2007	WIAS Research Seminar "*Mathematical Statistics*" organized by W. K. Härdle and V. Spokoiny, Berlin, Germany