CURRICULUM VITAE

• PERSONAL INFORMATION

Family name, First name:	Kiriliouk, Anna
Researcher unique identifier:	ORCID 0000-0003-2977-0140
Date of birth:	1 March 1989
Nationality:	Dutch
URL for web site:	http://annakiriliouk.weebly.com/

• EDUCATION

2016	PhD “Modelling extreme-value dependence in high dimensions using threshold exceedances”. *Institute of Statistics, Biostatistics and Actuarial Sciences, Université catholique de Louvain (UCLouvain), Belgium*. Supervised by prof. Johan Segers and prof. Michel Denuit.
2012	MSc in Statistics and Financial Mathematics. *School of Basic Sciences, École Polytechnique Fédérale de Lausanne (EPFL), Switzerland.*
2010	BSc in Mathematics. *Faculty of Science, Radboud University Nijmegen (RUN), the Netherlands.*

• CURRENT POSITION

2018 – now	Assistant professor (tenured since September 2020). *Department of Mathematics and Faculty of Economics, Social Sciences and Business Administration, Université de Namur (UNamur), Belgium.*

• PREVIOUS POSITIONS

2017 – 2018	Assistant professor (fixed-term), *Econometric Institute, Erasmus School of Economics, Erasmus University Rotterdam (EURotterdam), the Netherlands.*
2016 – 2017	Postdoctoral researcher (F.R.S.-FNRS scholarship), *Institute of Statistics, Biostatistics and Actuarial Sciences, UCLouvain, Belgium.*
2012 – 2016	PhD student (F.R.S.-FNRS Research Fellow), *Institute of Statistics, Biostatistics and Actuarial Sciences, UCLouvain, Belgium.*
2016	Trading risk analyst, *Department of Market Risk Management and Product Control, ING Bank, the Netherlands*.

• SUPERVISION OF GRADUATE STUDENTS AND POSTDOCTORAL RESEARCHERS

2022 – now	Jeongjin Lee (Postdoctoral fellow at *UNamur, Belgium*), jointly with prof. Johan Segers.
2021 – now	Anas Mourahib (PhD student at *UCLouvain, Belgium*), jointly with prof. Johan Segers.

• RESEARCH GRANTS

2024 – 2028	Mandat d’Impulsion Scientifique (FNRS), ~ 420k.
2020 – 2024	Projet de Recherche (FNRS), ~ 370k, as a co-promotor, joint with Johan Segers (*UCLouvain*).
2019 – 2023	Crédit de Recherche (FNRS), ~ 30k.
2018	Chargé de Recherches (FNRS), *post-doctoral grant declined to accept the position of assistant professor at UNamur*.
2013 – 2017	FRIA (FNRS), doctoral grant.

- **WORKING PAPERS**

2022+	Kiriliouk, A. and Zhou, C. Estimating probabilities of multivariate failure sets based on pairwise tail dependence coefficients, https://arxiv.org/abs/2210.12618.
2023+	Mourahib, A., Kiriliouk, A., and Segers, J. Multivariate generalized Pareto distributions along extreme directions, https://arxiv.org/abs/2311.04618.
2023+	Kiriliouk, A., Lee, J., and Segers, J. X-Vine models for multivariate extremes, https://arxiv.org/abs/2312.15205.
2024+	Kiriliouk, A. and Zhou, C. Extreme value analysis in finance. Book chapter in *Handbook on Statistics of Extremes* (edited by M. de Carvalho, R. Huser, P. Naveau and B. Reich), CRC Press. *In preparation.*
2024+	Kiriliouk, A. and Massonnet, F. Non-stationary modeling of minimal sea ice extent in Antarctica. *In preparation.*
2024+	Kiriliouk, A. and Van Keilegom, I. Inference on data with both multiplicative and additive measurement error. *In preparation.*

- **PUBLICATIONS**

2021	Kiriliouk, A., Segers, J. and Tsukahara, H. Resampling procedures with empirical beta copulas. Book chapter in *Pioneering works on extreme value theory: in honor of Masaaki Sibuya* (edited by N. Hoshino, S. Mano and T. Shimura), Springer.
2020	Kiriliouk, A. and Naveau, P. Climate extreme event attribution using multivariate peaks-over-thresholds modeling and counterfactual theory. *Annals of Applied Statistics 14(3), 1342-1358.*
2020	Kiriliouk, A. Hypothesis testing for tail dependence parameters on the boundary of the parameter space. *Econometrics and Statistics 16, 121-135.*
2019	Kiriliouk, A., Rootzén, H., Segers, J., and Wadsworth, J. Peaks over thresholds modelling with multivariate generalized Pareto distributions. *Technometrics 61(1), 123-135.*
2018	Kiriliouk, A., Segers, J. and Tafakori, L. An estimator of the stable tail dependence function based on the empirical beta copula. *Extremes 21(4), 581-600.*
2018	van Loenhout, J.A.F., Delbiso, T. Kiriliouk, A. Rodriguez-Llanes, J. Segers, J. and Guha-Sapir, D. Heat and emergency room admissions in the Netherlands. *BMC Public Health 18(108), 1-9.*
2018	Einmahl, J.H.J., Kiriliouk, A., and Segers, J. A continuous updating weighted least squares estimator of tail dependence in high dimensions. *Extremes 21(2), 205-233.*
2016	Einmahl, J.H.J., Kiriliouk, A., Krajina, A., and Segers, J. An M-estimator of spatial tail dependence. *Journal of the Royal Statistical Society: Series B (Statistical Methodology), 78, 275-298.*
2016	Kiriliouk, A., Segers, J., and Warchol, M. Nonparametric estimation of extremal dependence. Book chapter in *Extreme Value Modelling and Risk Analysis: Methods and Applications* (edited by D. Dey and J. Yan), Chapman & Hall/CRC Press.
2015	Denuit, M., Kiriliouk, A., and Segers, J. Max-factor individual risk models with application to credit portfolios. *Insurance: Mathematics and Economics 62, 162-172.*

- **ACADEMIC SERVICE**

2023	Pre-examiner of the PhD thesis of Nourhan Shafik (*Aalto University, Finland*).
2023	Examining board member for the PhD defense of Stefka Asenova (*UCLouvain*).
2022 – now	Member of the PhD thesis committee of Gaëtan Louvet (*UNamur*).
2021 – now	Member of the PhD thesis committee of Stéphane Lhaut (*UCLouvain*).
2019	Pre-examiner and opponent of the PhD thesis of Matias Heikkilä (*Aalto University, Finland*).

- **MEMBERSHIPS OF SCIENTIFIC SOCIETIES**

2022 – now Management committee member of the COST action CA21163 "*Text, functional and other high-dimensional data in econometrics: new models, methods, applications*".
2018 – now Board member of the Belgian Royal Statistical Society.

- **SHORT SCIENTIFIC STAYS**

2018 prof. Philippe Naveau, Université Paris VI Pierre et Marie Curie *(France).*
2015, 2014 prof. Holger Rootzén, Chalmers University *(Sweden).*

- **INVITED SEMINAR TALKS**

2023 Research Institute Earth and Life Center *(UClouvain, Belgium).*
2019 Research Institute naXys *(UNamur, Belgium).*
2018 Université Libre de Bruxelles (*Belgium).*
2018 Katholieke Universiteit Leuven (*Belgium).*
2017 Erasmus University Rotterdam *(the Netherlands).*
2017 Université Paris VI Pierre et Marie Curie *(France).*
2014 Chalmers University Gothenburg *(Sweden).*
2013 Université de Strasbourg *(France).*

- **CONTRIBUTED & INVITED CONFERENCE TALKS**

2023 **Invited talk**, workshop in honour of John Einmahl *(Oisterwijk, the Netherlands).*
2023 Contributed talk, 54th Journées de Statistique de la SFDS *(Brussels, Belgium).*
2023 Contributed talk, 13th International Conference on Extreme Value Analysis *(Milan, Italy).*
2023 **Invited talk**, workshop on "Modern Statistical and Machine Learning Approaches for High-Dimensional Compound Spatial Extremes" *(Granada, Spain).*
2023 **Invited talk**, Master of Statistical Analysis day of Ghent University *(Ghent, Belgium).*
2022 **Invited plenary talk**, 29th Annual Meeting of the Royal Belgian Statistical Society *(Brussels, Belgium).*
2022 **Invited talk**, workshop on causal inference and extremes *(Banff, Canada - Virtual).*
2022 **Invited talk**, workshop on behalf of the 30th anniversary of the Institute of Statistics *(Louvain-la-Neuve, Belgium).*
2020 **Invited talk**, 13th International Conference on Computational and Methodological Statistics (*London, UK – Virtual).*
2020 **Invited talk**, New Frontiers in Statistics of Extremes Workshop *(Lisbon, Portugal).*
2019 **Invited talk**, 62nd ISI World Statistics Congress *(Kuala Lumpur, Malaysia).*
2019 **Invited talk**, 11th International Conference on Extreme Value Analysis *(Zagreb, Croatia).*
2019 **Invited talk**, CRoNoS Workshop on Multivariate Data Analysis *(Limassol, Cyprus).*
2019 Contributed talk, VALPRED workshop on assessment of ensemble forecasts *(Aussois, France).*
2018 **Invited talk**, 11th International Conference on Computational and Methodological Statistics *(Pisa, Italy).*
2018 Contributed talk, 26nd Annual Meeting of the Royal Belgian Statistical Society *(Ovifat, Belgium).*
2018 Contributed talk, ATMS Workshop *(Leuven, Belgium).*
2018 **Invited talk**, workshop on Self-Similarity, Long-Range Dependence and Extremes *(Oaxaca, Mexico).*
2017 Contributed talk, European Meeting of Statisticians *(Helsinki, Finland).*
2017 **Invited talk**, 10th International Conference on Extreme Value Analysis *(Delft, the Netherlands).*
2017 Contributed talk, workshop on Risk Quantification and Extreme Values in Applications *(Lausanne, Switzerland).*

2016	**Invited talk**, 9th International Conference on Computational and Methodological Statistics *(Sevilla, Spain).*
2016	**Invited talk**, workshop on Statistics for High-Dimensional & Complex Data *(Thuwal, Saudi Arabia).*
2016	**Invited talk**, workshop on Flexible Statistical Modelling *(Ghent, Belgium).*
2016	**Invited talk**, Second Joint Conference of the Belgian, Royal Spanish and Luxembourg Mathematical Societies *(Rioja, Spain).*
2015	**Invited talk**, 8th International Conference on Computational and Methodological Statistics *(London, UK).*
2015	Contributed talk, 23rd Annual Meeting of the Belgian Statistical Society *(Antwerp, Belgium).*
2015	Contributed talk, 9th International Conference on Extreme Value Analysis *(Ann Arbor, USA).*
2014	**Invited talk**, workshop on Extreme Value Theory: Spatial and Temporal Aspects *(Besançon, France).*
2014	Contributed talk, workshop on High-dimensional and multivariate extremes *(Bristol, England).*

- **ORGANISATION OF SCIENTIFIC MEETINGS AND SESSIONS**

2023	Member of the scientific committee of the 30th Annual Meeting of the Belgian Statistical Society (*UClouvain*).
2023	Organizer of an invited session for the 13th International Conference on Extreme Value Analysis (*Milan, Italy*).
2022	Organizer of an invited session for the 5th International Symposium on Nonparametric Statistics (*Paphos, Cyprus*).
2020	Organizer of an invited session for the 13th International Conference on Computational and Methodological Statistics (*London, UK*).
2019	Member of the scientific and the organizing committee of the 27th Annual Meeting of the Belgian Statistical Society (*Sint-Truiden, Belgium*).
2016	Co-organizer of a workshop on Extremal Dependence Modelling (*Louvain-la-Neuve, Belgium*).

- **REVIEWING ACTIVITIES**

2012 – now	*Refereeing for peer-reviewed journals (number of reviews in parentheses):* Advances in Statistical Climatology, Meteorology and Oceanography (1), The American Statistician (1), Annals of Statistics (1), Annals of Applied Statistics (2), Journal of Climate (1), Computational Statistics & Data Analysis (1), Dependence Modelling (1), Econometrics and Statistics (2), Extremes (7), Environmental and Ecological Statistics (1), Geoscientific Model Development (1), International Journal of Computer Mathematics (1), Journal of Applied Probability (1), Journal of Applied Statistics (1), Journal of Computational and Graphical Statistics (1), Journal of Multivariate Analysis (3), Quantitative Finance (1), Royal Society Open Science (1), Scandinavian Journal of Statistics (1), Statistics (1), TEST (1), Water Resources Research (1), Weather and Climate Extremes (1)

- **R PACKAGES PUBLISHED ON CRAN**

2016	Kiriliouk, A. *tailDepFun*: Minimum distance estimation of tail dependence models. R package version 1.0.1.
2014	Kiriliouk, A. and Segers, J. *spatialTailDep*: Estimation of spatial tail dependence models. R package version 1.0.2.

- **TEACHING ACTIVITIES**

I am currently teaching a total of 5.5 courses per academic year.

2019 – now	Nonparametric statistics (master students in business engineering), linear regression (third-year students in mathematics), introduction to statistics (first-year students in communication and political sciences), interdisciplinary project (first-year students in business engineering and management). *UNamur*.
2018 – now	Statistics and probability (first-year students in business engineering, economics and management) and linear algebra (second-year students in business engineering, economics and management), *UNamur*.
2017 – now	Supervision of MSc theses, on average 3 per year (*EURotterdam* and *UNamur)*.
2019	Short course ‘Introduction to extreme-value theory’ (3h) within the PhD course ‘Advanced topics in econometrics’, *UNamur*.
2017 – 2018	Two introductive courses on statistics (first-year students and pre-master students in econometrics) and a project in financial econometrics (second-year students). *EURotterdam.*