

Curriculum vitae

THOMAS VERDEBOUT, homepage: <http://tverdebo.ulb.ac.be>

1. Personal details

Address (professional): Université libre de Bruxelles (Campus Plaine), Boulevard du Triomphe, CP210, B-1050 Brussels, Belgium.

Phone number (professional): (+32) 02.650.58.92.

E-mail address: thomas.verdebout@ulb.be

Languages: French, English.

2. Education

2013: *Habilitation à diriger des recherches (HDR)*

Dissertation: “Contribution to multivariate analysis and inference for directional data” (Lille, France, defense date: 2013/11/22).

2006–2008: *PhD in Sciences (Statistics)*

Université libre de Bruxelles (ULB).

Dissertation: “Optimal inference for one-sample and multisample Principal Component Analysis” (advisors: Marc Hallin and Davy Paindaveine, defense date: 2008/10/24).

2001–2006: *Master Degree in Mathematics (4 years program)+DEA (diplôme d’études approfondies) in Statistics, Probability and Operational Research (1 year program)*

Université libre de Bruxelles (ULB).

1995–2001: *Secondary School Certificate*

Athénée Royal Jules Bara, Tournai.

3. Professional career

2014–present: *Associate Professor* at the Mathematics Department, Université Libre de Bruxelles (ULB).

2009–2014: *Assistant Professor* at the laboratoire EQUIPPE, Université Lille 3.

2005–2009: *Full-time teaching assistant* at the School of Social and Political Sciences and the Solvay Brussels School of Economics and Management, Université libre de Bruxelles

(ULB).

2004–2005: *Student-assistant* for the course “Modèles linéaires et non linéaires”, Université libre de Bruxelles (ULB).

Courses taught: Asymptotic Statistics, Mathematical Statistics, Calculus I, Stochastic Processes, Multivariate Data Analysis, Regression Models, Introduction to graph theory, Descriptive Statistics.

4. Visiting positions, courses

2021-present: Visiting professor at the Université de Lille, France. Course taught: Statistical learning in high dimensions (Master en Mathématiques appliquées).

2014–2015: Visiting professor at the Université de Liège. Course taught: Statistiques générales et traitement de données (jointly with Y. Swan, 2nd Bachelor in Geography and 3rd Bachelor in Biology).

2012–2014: Visiting professor at the Université Libre de Bruxelles (ULB). Course taught: Applied Multivariate Analysis and Statistics 2 (in Economics and Financial Engineering).

2012: Short course on Directional Statistics (ULB).

5. Invited research stays

January 2020: Mathematics Department, Karlsruhe Institute of Technology (Germany).

May 2018: Isaac Newton Institute for Mathematical Sciences, Cambridge University (UK).

March 2017: Statistics Department, University Carlos III, Madrid (Spain).

December 2014: ORFE department, Princeton University (USA).

November 2012: ORFE department, Princeton University (USA).

6. Awards, distinctions, grants

2022-2024: Grant (Projet de Recherche) from the FNRS (Belgian Research Foundation), “Inference with directions”.

2021: Adolphe Wetrems Prize of the Royal Academies for Science and the Arts of Belgium.

Created in 1926, this prize is awarded each year to a researcher who has made a significant and recent scientific advance in Mathematics or Physics.

2021: Laureate of the Fonds Thelam, Fondation Roi Baudouin.

2018-2023: Advanced A.R.C. (Action de Recherche Concertée avancée) of the Communauté Française de Belgique, “Robust and Efficient Solutions to the Big Data Challenge”.

2018-2020: Grant (Crédit de Recherche J.0134.18) from the FNRS (Belgian Research Foundation), “Hypothesis testing in high dimensions: non-null and Le Cam optimality results”.

2015: Grant from the National Bank of Belgium (BNB), “Tests d’hypothèse en grande dimension avec applications à la finance”.

2013: Elected member of the International Statistical Institute (ISI).

2012: Prime for scientific excellence (Prime d’excellence scientifique, France), 2012-2016.

2011: Annual price in Applied Mathematics (prix du concours annuel) of the Royal Academies for Science and the Arts of Belgium.

2011 : Special ASA Journal of Nonparametrics Statistics invited paper at the Graybill conference in Fort-Collins, Colorado, USA, for the paper ”Rank-based Inference in Linear Models with Stable Errors”.

7. Academic service, memberships

2022–present: Associate Editor for Bernoulli.

2016–present: Associate Editor for Journal of Multivariate Analysis.

2020–2022: Associate Editor for Computational Statistics and Data Analysis.

2014–2022: Associate Editor for Statistics and Probability Letters.

2018–present: President of the Jury for the Specialized Master in Big data (ULB).

2017–present: Secretary of the Jury for the Master in Statistics (ULB).

2022–present: Elected board member of the Royal Belgian Statistical Society.

2022–present: Elected member in the Mathematical Statistics working group of the French Statistical Society.

2021-present: Member of the commission de coordination pédagogique of the Mathematics Department (ULB).

2021-present: Academic member of the board of the Mathematics Department (ULB).

2017-present: Substitute member of the doctoral school in Statistics and Actuarial Sciences.

2021-present: Organiser of internal seminars in Actuarial Sciences, Probability and Statistics in the Mathematics Department.

2020-present : Treasurer of ECAS.

2015-present: Belgian representative of ECAS.

2022: Organizer of an accepted Contributed Talks session at the Institute of Mathematical Statistics meeting in London, UK.

2022: Organizer of the 2 days International workshop "Multivariate Analysis of Complex Data" (MACD) at ULB, Brussels.

2022: Member of the scientific committee of the annual meeting of the Royal Belgian Statistical Society organized by the Vrije Universiteit Brussel (VUB).

2021: Organizer and chairman of a session about Multivariate Statistics at the CMStatistics conference in London.

2020-2021: Member of the scientific committee for the 52nd Journées de la Société Française de Statistique in Nice.

2015-2020: Secretary and treasurer of ECAS (European Courses in Advanced Statistics).

2019: Organizer and chairman of a session about Multivariate Statistics at the CMStatistics conference in London.

2019: Organizer of a session about Directional Statistics at the 51st Journées de la Société Française de Statistique.

2018: Member of the scientific committee of the annual meeting of the Royal Statistical Society of Belgium in Ovifat.

2018: Member of the organizing committee of the annual meeting of the Royal Statistical

Society of Belgium in Ovifat.

2016: Member of the scientific committee of the CMStatistics conference in Sevilla.

2016: Organizer and chairman of a session about Directional Statistics at the CMStatistics conference in Sevilla.

2015: Organizer and chairman of a session about Directional Statistics at the CMStatistics conference in London.

2015: Member of the organization committee of the 47th Journées de Statistique de la SfdS, Lille.

2014: Organizer and chairman of a session about Directional Statistics at the ERCIM 2014 conference in Pisa.

2014: Co-organizer of the Advances in Directional Statistics conference in Brussels.

2012–2014: Elected member of the laboratoire EQUIPPE council.

2010–2014: In charge of the EQE (Quantitative Economics and Econometrics) licence in the Université Lille 3.

2010–2014: Organizer of the seminar of Econometrics and Statistics at the laboratoire EQUIPPE.

2009: Member of the scientific committee at the meeting in honor of Marc Hallin.

Referee reports for *Annals of Statistics*, *Journal of the Royal Statistical Society, Series B*, *Journal of the American Statistical Association*, *Bernoulli*, *Statistica Sinica*, *Annales de l'Institut Henri Poincaré (B) Probability and Statistics*, *Journal of Econometrics*, *Journal of Multivariate Analysis*, *Biometrics*, *Journal of Machine Learning Research*, *Electronic Journal of Statistics*, *Journal of Business and Economic Statistics*, *Annals of the Institute of Statistical Mathematics*, *Test*, *Journal of Time Series Analysis*, *IEEE Transactions on Signal Processing*, *IEEE Transactions on Information Theory*, *Canadian Journal of Statistics*, *Journal of Statistical Planning and Inference*, *Statistics and Probability Letters*, *International Statistical Review*, *Computational Statistics and Data Analysis*, *Econometrics and Statistics*, *The American Statistician*, *Computational Statistics*, *Journal of Statistical Computation and Simulation*, *Statistical Inference for Stochastic Processes*, *Journal*

of the Korean Statistical Society, Statistics, Behavioral Ecology and Sociobiology, Communications in Statistics, North Western European Journal of Mathematics, Studies in Nonlinear Dynamics and Econometrics, Springer books.

8. Research interests

My main research activities are concentrated around the following topics :

1. Optimal (in the Le Cam sense) inferential procedures
2. Rank-based procedures
3. Directional statistics
4. High-dimensional inferential procedures
5. Inference under heavy-tailed distributions
6. Asymptotic theory
7. Non- and semi-parametric statistics

9. Publications

Books

1. Modern Directional Statistics. Chapman & Hall, CRC press (2017) (coauthor: C.Ley).
2. Applied Directional Statistics: Modern Methods and Case Studies. Chapman & Hall, CRC press, in press (co-editor with C.Ley).

Preprints

1. Portmanteau tests for semiparametric nonlinear conditionally heteroscedastic time series models (coauthors: Ch. Francq and J-M. Zakoian), *submitted*.
2. Nonparametric measure-transportation-based methods for directionnal data (coauthors: M. Hallin and H. Liu), *submitted*.
3. Boosting on the responses with Tweedie loss functions (coauthors: M. Denuit and J. Truffin), *submitted*.
4. Power enhancement for dimension detection of Gaussian signals (coauthor: G. Bernard), *submitted*.
5. On the power of Sobolev tests of isotropy against local rotationally symmetric alternatives (coauthors: E. Garcia-Portugués and D. Paindaveine), *submitted*.

6. An overview of uniformity tests on the hypersphere, *submitted* (coauthor: E. García-Portugués).

Published or in press

7. Nonparametric tests of independence for circular data based on trigonometric moments, *Statistica Sinica*, to appear (coauthors: E. García-Portugués, P. Lafaye de Micheaux and S. Meintanis).
8. Asymptotic efficiency of some nonparametric tests for location on hyperspheres, *Statistics and Probability Letters*, to appear (co-authors: S. Dabo and B. Thiam).
9. Preliminary Multiple-Test Estimation, with Applications to k -sample Covariance Estimation, *Journal of the American Statistical Association*, to appear (coauthors: D. Paindaveine and J. Rasoafaraniaina).
10. On the asymptotic behavior of the leading eigenvector of Tyler's shape estimator under weak identifiability, *In: Nordhausen, K., Yi, M. (eds), Robust and Multivariate Statistical Methods. Festschrift in honor of David Tyler. Springer*, to appear (coauthor: D. Paindaveine).
11. On weighted sign tests for rotational symmetry on hyperspheres, in *Directional Statistics for Innovative Applications, Springer*, to appear.
12. On some multivariate sign tests for scatter matrix eigenvalues, *Econometrics and Statistics*, to appear (coauthor: G. Bernard).
13. Testing uniformity on high-dimensional spheres: the non-null behaviour of the Bingham test, *Annales de l'Institut Henri Poincaré (P&S)*, Vol. 58, 567-602 (2022) (coauthors: C. Cutting and D. Paindaveine).
14. Testing for positive expectation dependence with application to model comparison, *Insurance: Mathematics and Economics*, Vol. 101, 163-172 (2021) (coauthors: M. Denuit and J. Trufin).
15. Directional Statistics: Theory, *Wiley Statsref: Statistics reference online* (2021).
16. Preliminary test estimation in ULAN models, *Scandinavian Journal of Statistics*, Vol. 48, 689-707 (2021) (coauthors: D. Paindaveine and J. Rasoafaraniaina).
17. Optimal tests for circular reflective symmetry about an unknown central direction, *Statistical Papers*, Vol. 62, 1651-1674 (2021) (coauthors: J. Ameijeiras-Alonso, C. Ley, A. Pewsey).

18. On optimal tests for rotational symmetry against new classes of hyperspherical distributions, *Journal of the American Statistical Association*, Vol. 115, 1873-1887 (2020) (coauthors: E. García-Portugués and D. Paindaveine).
19. Sign tests for weak principal directions, *Bernoulli*, Vol. 26, 2987-3016 (2020) (coauthors: D. Paindaveine and J. Remy).
20. Inference for spherical location under high concentration, *Annals of Statistics*, Vol. 48, 2982-2998 (2020) (coauthor: D. Paindaveine).
21. On new Sobolev tests of uniformity on the circle with extension to the sphere, *Bernoulli*, Vol. 26, 2226-2252 (2020) (coauthors: S.R. Jammalamadaka and S. Meintanis).
22. Detecting the direction of a signal on high-dimensional spheres: non-null and Le Cam optimality results, *Probability Theory and Related Fields*, Vol. 176, 1165-1216 (2020) (coauthor: D. Paindaveine).
23. On the power of axial tests of uniformity, *Electronic Journal of Statistics*, Vol. 14, 2123-2154 (2020) (coauthors: C. Cutting and D. Paindaveine).
24. Testing for principal component directions under weak identifiability, *Annals of Statistics*, Vol. 48, 324-345 (2020) (coauthors: D. Paindaveine and J. Remy).
25. Le Cam maximin tests for symmetry of circular data based on the characteristic function, *Statistica Sinica*, Vol. 29, 1301-1320 (2019) (coauthor: S. Meintanis).
26. On the efficiency of some rank-based test for the homogeneity of concentrations, *Journal of Statistical Planning and Inference*, Vol. 191, 101-109 (2017).
27. Testing uniformity on high-dimensional spheres against contiguous rotationally symmetric alternatives, *Annals of Statistics*, Vol. 45, 1024-1058 (2017) (coauthors: C. Cutting and D. Paindaveine).
28. Skew-rotationally-symmetric distributions on the unit sphere and related efficient inferential procedures, *Journal of Multivariate Analysis*, Vol. 159, 67-81 (2017) (coauthor: C. Ley).
29. Inference on the mode of weak directional signals: a Le Cam perspective on hypothesis testing near singularities, *Annals of Statistics*, Vol. 45, 800-832 (2017) (coauthor: D. Paindaveine).
30. On the estimation of the density of a directional data stream, *Scandinavian Journal*

- of Statistics*, Vol. 44, 249–267 (2017) (coauthors: A. Amiri and B. Thiam).
31. Preliminary test estimation for multi-sample principal components, *Econometrics and Statistics*, Vol. 2, 106–116 (2017) (coauthors: D. Paindaveine and J. Rasoafaraniaina).
 32. Tests of concentration for low-dimensional and high-dimensional directional data, In S. Ejaz Ahmed Ed., *Big and Complex Data Analysis: Statistical Methodologies and Applications*, Springer, Cham Heidelberg New York, 209–227 (2017). (coauthors: C. Cutting and D. Paindaveine).
 33. Efficient ANOVA for directional data, *Annals of the Institute of Statistical Mathematics*, Vol. 69, 39–62 (2017) (coauthors: C. Ley and Y. Swan).
 34. Universal asymptotics for high-dimensional sign tests, *Bernoulli*, Vol. 22, 1745–1769 (2016) (coauthor: D. Paindaveine).
 35. On some validity-robust tests for the homogeneity of concentrations, *Journal of Non-parametric Statistics*, Vol. 27, 372–383 (2015).
 36. High-dimensional tests for spherical location and spiked covariance, *Journal of Multivariate Analysis*, Vol. 139, 79–91 (2015) (coauthors: C. Ley and D. Paindaveine).
 37. Optimal rank-based tests for the location parameter of a rotationally symmetric distribution on the hypersphere. *Mathematical Statistics and Limit Theorems – Festschrift in Honour of Paul Deheuvels*, Springer, 249–270 (2015) (coauthor: D. Paindaveine).
 38. Local powers of optimal one- and multi-sample tests for the concentration of Fisher-von Mises-Langevin distributions. *International Statistical Review*, Vol. 82, 440–456 (2014) (coauthor: C. Ley).
 39. Efficient R-estimation of principal and common principal components. *Journal of the American Statistical Association*, Vol. 109, 1071–1083 (2014) (coauthors: M. Hallin and D. Paindaveine).
 40. Simple, asymptotically distribution-free, optimal tests for reflective symmetry about a known circular median. *Statistica Sinica*, Vol. 24, 1319–1340 (2014) (coauthor: C. Ley).
 41. A new concept of quantiles for directional data and the angular Mahalanobis depth. *Electronic Journal of Statistics*, Vol. 8, 795–816 (2014) (coauthors: C. Ley and C. Sabbah).
 42. On Hodges and Lehmann’s “ $6/\pi$ result”. *Contemporary Developments in Statistical*

- Theory*, Springer, 137-153 (2014) (coauthors: M. Hallin and Y. Swan).
43. Optimal rank-based tests for Common Principal Components, *Bernoulli*, Vol. 19, 2524-2556 (2013) (coauthors: M. Hallin and D. Paindaveine).
 44. Optimal R-estimation of a spherical location. *Statistica Sinica*, Vol. 23(1), 305-333 (2013) (coauthors: C. Ley, Y. Swan and B. Thiam).
 45. R-estimation in linear models with stable errors. *Journal of Econometrics*, Vol. 172(2), 195-204 (2013) (coauthors: M. Hallin, Y. Swan and D. Veredas).
 46. Common principal components. *Encyclopedia of Environmetrics* Second Edition, A.-H. El-Shaarawi and W. Piegorisch (eds). John Wiley & Sons Ltd, Chichester, UK, pp. 447-449 (2012).
 47. A contribution to asymptotic inference on eigenvectors and eigenvalues of covariance and scatter matrices. *Mémoire de l'Académie Royale des Sciences, des Lettres et des Beaux-Arts* (2012).
 48. Rank-based tests for elliptical graphical modeling. *Journal de la Société Française de Statistique*, Vol. 153, 82-100 (2012) (coauthor: D. Paindaveine).
 49. Rank-based testing in linear models with stable errors. *Journal of Nonparametric Statistics*, Vol. 23, 305-320 (2011) (coauthors: M. Hallin, Y. Swan and D. Veredas).
 50. Optimal rank-based tests for Principal Component Analysis. *Annals of Statistics*, Vol. 38, 3245-3299 (2010) (coauthors: M. Hallin and D. Paindaveine).
 51. Testing for common principal components under heterokurticity. *Journal of Nonparametric Statistics*, Vol. 22, 879-895 (2010) (coauthors: M. Hallin and D. Paindaveine).
 52. Pseudo-Gaussian inference in heterokurtic elliptical Common Principal Components model. *Annales de l'ISUP*, LII, 9-24 (2008) (coauthors: M. Hallin and D. Paindaveine).

10. Talks

1. (Invited) IMS annual meeting 2022, London (UK), June 2022.
2. (Invited) Advances in Directional Statistics (ADISTA) 2022 workshop, Santiago de Compostela (Spain), June 2022.
3. (Invited) Waseda Symposium, Tokyo (Japan), March 2022.
4. (Invited) International Conference of the ERCIM WG on Computing & Statistics

- (CMStatistics 2021), London (UK), December 2021.
5. 52ème Journées de la Société Française de Statistique, Nice (France), June 2021.
 6. (Invited) Statistics seminar at Karlsruhe Institute of technology, Karlsruhe, Germany, January 2020.
 7. (Invited) 12th International Conference of the ERCIM WG on Computing & Statistics (CMStatistics 2019), London (UK), December 2019.
 8. (Invited) ECARES introduction day, Brussels (Belgium), September 2019.
 9. (Invited) 4th Workshop on Goodness-of-fit, Change-point and related problems, Trento (Italy), September 2019.
 10. (Invited) European Meeting of Statisticians, Palermo (Italy), July 2019.
 11. (Invited) 51ème Journées de la Société Française de Statistique, Nancy (France), June 2019.
 12. ICORS 2018 conference, KUL, Leuven (Belgium), July 2018.
 13. (Invited) 10th International Conference of the ERCIM WG on Computing & Statistics (CMStatistics 2017), London (UK), December 2017.
 14. Workshop on Semiparametric Statistics, Ghent (Belgium), December 2017.
 15. (Invited) 3rd Workshop on Goodness-of-Fit and Change-point problems, KIT, Karlsruhe (Germany), September 2017.
 16. (Invited) ADISTA 17 workshop, University Roma 3 (Italy), June 2017.
 17. (Invited) Statistics Seminar, ULG, Liège (Belgium), April 2017.
 18. (Invited) Statistics Seminar of the University Carlos 3, Madrid (Spain), March 2017.
 19. (Invited) 9th International Conference of the ERCIM WG on Computing & Statistics (CMStatistics 2016), Sevilla (Spain), December 2016.
 20. Annual meeting of the Belgian Statistical Society, Namur (Belgium), October 2016.
 21. (Invited) Séminaire parisien de la Statistique, Institut Henri Poincaré, Paris (France), September 2016.
 22. (Invited) 3rd ISNPS conference on Nonparametric Statistics, Avignon (France), June 2016.
 23. (Invited) 8th International Conference of the ERCIM WG on Computing & Statistics (CMStatistics 2015), London (UK), December 2015.
 24. (Invited) Joint Statistics Seminar, KUL, Leuven (Belgium), April 2015.

25. (Invited) 7th International Conference of the ERCIM WG on Computing & Statistics (ERCIM 2014), Pisa (Italy), December 2014.
26. (Invited) ULB-UCL seminar, UCL, Louvain-La-Neuve (Belgium), November 2014.
27. (Invited) ADISTA 14 conference, Brussels (Belgium), May 2014.
28. (Invited) 6th International Conference of the ERCIM WG on Computing & Statistics (ERCIM 2013), London (UK), December 2013.
29. (Invited) Statistics seminar of the Laboratoire Paul Painlevé, Université Lille 1, Lille (France), December 2013.
30. (Invited) Statistics seminar of the Toulouse School of Economics, Toulouse (France), November 2013.
31. (Invited) Brussels Summer School of Mathematics, Brussels (Belgium), August 2013.
32. The 32nd Leeds Annual Statistical Research Workshop, Leeds (UK), July 2013.
33. (Invited) INRIA seminar, Lille (France), December 2012.
34. 5th International Conference of the ERCIM WG on Computing & Statistics (ERCIM 2012), Oviedo (Spain), December 2012.
35. (Invited) Statistics seminar, Université Libre de Bruxelles, Bruxelles (Belgium), October 2012.
36. Journée du laboratoire EQUIPPE, Lille (France), Juin 2012.
37. 43ème journées de la Société Française de Statistique, Bruxelles (Belgium), May 2012.
38. Annual meeting of the Belgian Statistical Society, Hasselt (Belgium), October 2011.
39. (Invited) Statistics seminar of the ORFE department, Princeton University (USA), April 2010.
40. 4th Belgium-Japan seminar on Time Series and Financial Statistics, Bruxelles (Belgium), June 2009.
41. 41ème Journées de la Société Française de Statistique, Bordeaux (France), May 2009.
42. (Invited) Statistics seminar of the LSTA, Université Pierre et Marie Curie, Paris (France), January 2009.
43. (Invited) Seminar in honor of Hirotugu Akaike, Recent developments in Statistics and Econometrics, Kyoto (Japan), November 2008.
44. 3rd Belgium-Japan seminar on Time Series and Financial Statistics, Izu (Japan),

November 2008.

45. 2nd Belgium-Japan seminar on Time Series and Financial Statistics, Bruxelles (Belgium), June 2008.
46. (Invited) Joint meeting of the Statistical Society of Canada and the Société Française de Statistique, Ottawa (Canada), May 2008.
47. Belgium-Japan seminar on Time Series and Financial Statistics, Hakone (Japan), October 2007.
48. Young Statistician day, 15th Annual meeting of the Belgian Statistical Society, Antwerpen (Belgium), October 2007.
49. 2ème Journées des jeunes Statisticiens de la Société Française de Statistique, Aussois (France), September 2007.
50. Workshop on robust and nonparametric statistical inference, Hejnice (Czech Republic), September 2007.
51. 36ème Journées de la Société Française de Statistique, Angers (France), June 2007.

11. PhD/Master Students Supervisions and jury of PhD theses

Supervision of Phd Students:

1. 2014-2020: Christine Cutting, *Testing uniformity against rotationally symmetric alternatives on high-dimensional spheres*, co-supervision with D. Paindaveine.
2. 2014-2020: Joséa Rasoafaraniaina, *Preliminary test estimation in locally and asymptotically normal models*, co-supervision with D. Paindaveine.
3. 2016-present: Julien Remy, *working title: Asymptotic inference in the vicinity of singularities*, co-supervision with D. Paindaveine.
4. 2019-present: Gaspard Bernard, *working title: Robust inference for the eigenstructure of scatter matrices for Euclidean and Directional data*.
5. 2021-present: Laura Peralvo Maroto, *working title: Asymptotic inference based on ranks in triangular arrays contexts*.
6. 2021-present: Vivien Meurice, *working title: Inference for scaled rotationally symmetric distributions*.

Jury of PhD theses:

1. 2021: Pierre Zuyderhoff, Université Libre de Bruxelles (ULB) “On the measure of risks in a ruin context and the measure of dependence”. Supervisor: Julien Trufin.
2. 2018: Gilles Nisol, Université Libre de Bruxelles (ULB) “Three essays on Functional Time Series and Factor Analysis”. Supervisor: Siegfried Hormann.
3. 2017: Mohamed Amghar, Université Libre de Bruxelles (ULB) “Multiscale local polynomial transforms in smoothing, density estimation and copula estimation”. Supervisor: Maarten Jansen.
4. 2017: Lorenzo Ricci, Université Libre de Bruxelles (ULB) “Essays on tail risk in macroeconomics and finance: measurement and forecasting”. Supervisor: David Veredas.
5. 2015: Isabelle Charlier, Université Libre de Bruxelles (ULB) “Conditional quantile estimation through optimal quantization”. Supervisors: Davy Paindaveine and Jérôme Saracco.
6. 2014: Lukasz Kidzinski, Université Libre de Bruxelles (ULB), “Inference for stationary functional time series: dimension reduction and regression”. Supervisor: Siegfried Hormann.

12. Scientific collaborators

1. Aboubacar Amiri (ULiège, Belgium)
2. Jose Ameijeiras-Alonso (University of Santiago de Compostela, Spain)
3. Sophie Dabo-Niang (Université de Lille, France)
4. Michel Denuit (UCL, Belgium)
5. Christian Francq (ENSAE, Paris, France)
6. Eduardo García Portugués (University Carlos III, Madrid, Spain)
7. Marc Hallin (ULB, Belgium)
8. Sreenivas Rao Jammalamadaka (University of California, Santa Barbara, USA)
9. Pierre Lafaye de Micheaux (UNSW, Sydney, Australia)
10. Christophe Ley (University of Luxembourg, Luxembourg)
11. Hang Liu (University of Science and Technology of China, China)
12. Simos Meintanis (Athens University, Greece)
13. Davy Paindaveine (ULB, Belgium)
14. Arthur Pewsey (University of Extremadura, Spain)

15. Camille Sabbah (Université de Lille, France)
16. Yvik Swan (ULB, Belgium)
17. Baba Thiam (Université de Lille, France)
18. Julien Trufin (ULB, Belgium)
19. Jean-Michel Zakoian (ENSAE, Paris, France)