

## 1 Personal information

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**Born:** September 23, 1976 in Haine-Saint-Paul (Belgium)

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**Languages:** French, English

## 2 Education

1994-1998: Licence en sciences mathématiques (Université Libre de Bruxelles).

- Première candidature (1994-1995): *la plus grande distinction* (highest grade).
- Seconde candidature (1995-1996): *la plus grande distinction* (highest grade).
- Première licence (1996-1997): *la plus grande distinction* (highest grade).
- Seconde licence (1997-1998): *la plus grande distinction* (highest grade).

1997-1998: Agrégation de l'enseignement secondaire supérieur (Université Libre de Bruxelles): *grande distinction*.

1998-2000: DEA en Statistique et Recherche Opérationnelle, spécialisation statistique (Université Libre de Bruxelles): *la plus grande distinction* (highest grade), with *félicitations du Jury*.

2000-2002: Doctorat en Sciences, orientation statistique (Université Libre de Bruxelles), with *félicitations du Jury*.

**Title of the dissertation:** “Optimal invariant signed rank tests for elliptically symmetric location and time series problems”, defended September 3, 2002 (advisor: M. Hallin).

### 3 Professional career

1998-2002: Assistant at the Mathematics Department, Université Libre de Bruxelles.

2002-2006: Chargé de Cours (tenured junior professor) of Statistics at the Institute of Statistics and Operations Research (ISRO), Université Libre de Bruxelles (since October 1, 2002).

2007-2010: Professeur (associate professor) of Statistics at the Faculté des Sciences sociales et politiques, Solvay Brussels School of Economics and Management, Université Libre de Bruxelles.

2010 to present: Professeur ordinaire (full professor) of Statistics at the Solvay Brussels School of Economics and Management, Université Libre de Bruxelles.

Courses taught: Statistics II, Mathematical statistics, Advanced topics in mathematical statistics, Multivariate analysis, Regression models, Stochastic processes, Times series and forecasting, Advanced topics in time series analysis, etc.

#### Other teaching experience and visiting positions

- Visiting Professor, Institut National de Statistique et d'Economie Appliquée, Rabat, January 2000: "Introduction aux processus stochastiques" (30hrs).
- Suppléant, Faculté des Sciences, Université libre de Bruxelles, 2001-2002: "Probabilités et Statistique" (45hrs).
- Visiting Professor, Université Pierre-et-Marie-Curie (Paris 6), 2005-2007: "Statistique non paramétrique" (20hrs).
- Visiting Professor, Université Pierre-et-Marie-Curie (Paris 6), 2009-Present: "Statistique fondamentale" (30hrs).

### 4 Academic service

- Associate editor for the *Journal of Statistical Planning and Inference* (2012-present).
- Associate editor for *Statistica Sinica* (2011-present).
- Associate editor for *International Statistical Review* (2011-present).
- Associate editor for *Statistics and Probability Letters* (2010-present).
- Associate editor for *METRON International Journal of Statistics* (2007-present).
  
- Co-director of the European Centre for Advanced Research in Economics and Statistics (ECARES) (2006-present).
- Member of the ECORE (ECARES + CORE) executive committee (2006-present).
- President of the Jury for the Master in Statistics, ULB (2009-present).

- Co-organizer of the Statistics Seminar at ECARES and Département de Mathématique, ULB (2008-present).
- President of the FNRS graduate school in Statistics and Actuarial Sciences (2009-2011).
- Co-organizer of the Econometrics and Statistics Seminar at ECARES, ULB (2002-2007).
- Secretary of the Jury for the Master in Statistics, ULB (2005-2009).
- Elected member of the Conseil de la Société Française de Statistique (2006-2009).
- Representative of the Société Française de Statistique in the Conseil de la Société Mathématique de France (2006-2009).
- Vice-President of the FNRS graduate school in Statistics and Actuarial Sciences (2005-2009).

## 5 Fellowships

2003-2006: crédit aux chercheurs F.N.R.S. (*“Développement d’un estimateur optimal de la matrice de forme d’une distribution elliptique, basé sur les rangs signés généralisés. Développement de méthodes de rangs basées sur des contours multivariés généralisés”*).

2007-2009: mandat d’impulsion scientifique du F.N.R.S. (*“extension of Koenker and Basset (1978)’s celebrated concept of regression quantiles to the multivariate setting (multiple output regression), and development of the corresponding multivariate rank scores”*).

2010: National Bank of Belgium (*“Principal component analysis for financial data”*).

2010-2015: A.R.C. (Action de Recherche Concertée) of the Communauté Française de Belgique (*“Statistical methods for complex static and dynamic dependence models”*). Project coordinator.

## 6 Prizes and awards

1997: **Sterpenich Prize**: annual prize for the best undergraduate student in Sciences.

2003: **Prix Marie-Jeanne Laurent-Duhamel**, which is awarded every second year by the Société Française de Statistique to the best Ph.D. in Statistics defended in a French-speaking university in the previous three years.

2005: **Elected member of the International Statistical Institute**.

2005: **Prix du Concours annuel de la Classe des Sciences de l’Académie Royale de Belgique** for a dissertation entitled “Sur l’Efficacité Asymptotique Uniforme des Procédures de Rangs Signés Multivariées”.

2007: **Gottfried E. Noether Young Scholar Award**, for research accomplishments in nonparametric statistics, American Statistical Association.

2007: **Prix Adolphe Wetrems de la Classe des Sciences de l'Académie Royale de Belgique**. This price, created in 1926, is granted every year to a Belgian scientist rewarding “the most useful discovery or invention in physics, mathematics or the natural sciences,” made during the previous year.

## 7 Publications

### Published or in press:

1. Selecting a sequence of last successes in independent trials (coauthor: F. T. Bruss). *Journal of Applied Probability* **37**, 389–399 (2000).
2. R-estimation for ARMA models (coauthors: J. Allal and A. Kaaouachi). *Journal of Nonparametric Statistics* **13**, 815–831 (2001).
3. Optimal tests for multivariate location based on interdirections and pseudo-Mahalanobis ranks (coauthor: M. Hallin). *Annals of Statistics* **30**, 1103–1133 (2002).
4. Multivariate signed ranks: Randles’ interdirections or Tyler’s angles? (coauthor: M. Hallin). In Y. Dodge, Ed., *Statistical data analysis based on the  $L_1$ -norm and related methods*, Birkhäuser, Basel, 271–282 (2002).
5. Optimal procedures based on interdirections and pseudo-Mahalanobis ranks for testing multivariate elliptic white noise against ARMA dependence (coauthor: M. Hallin). *Bernoulli* **8**, 787–815 (2002)
6. Affine-invariant linear hypotheses for the multivariate general linear model with ARMA error terms (coauthor: M. Hallin). In M. Moore, S. Froda, and Chr. Léger, Eds, *Mathematical Statistics and Applications: Festschrift for Constance van Eeden*, I.M.S. Lecture Notes-Monograph Series, I.M.S., Hayward, California, 417–434 (2003).
7. Procédures optimales fondées sur les rangs multivariés. *Journal de la Société Française de Statistique* **144**, 25–66 (2003).
8. Rank-based optimal tests of the adequacy of an elliptic VARMA model (coauthor: M. Hallin). *Annals of Statistics* **32**, 2642–2678 (2004).
9. A unified and elementary proof of serial and nonserial, univariate and multivariate, Chernoff-Savage results. *Statistical Methodology* **1**, 81–91 (2004).
10. Multivariate signed rank tests in vector autoregressive order identification (coauthor: M. Hallin). *Statistical Science* **19**, 697–711 (2004).
11. Affine-invariant aligned rank tests for the multivariate general linear model with ARMA errors (coauthor: M. Hallin). *Journal of Multivariate Analysis* **93**, 122–163 (2005).

12. Optimal signed-rank tests based on hyperplanes (coauthor: H. Oja). *Journal of Statistical Planning and Inference* **135**, 300–323 (2005).
13. Asymptotic linearity of serial and nonserial multivariate signed rank statistics (coauthor: M. Hallin). *Journal of Statistical Planning and Inference* **136**, 1–32 (2006).
14. A Chernoff-Savage result for shape. On the non-admissibility of pseudo-Gaussian methods. *Journal of Multivariate Analysis* **97**, 2206–2220 (2006).
15. Semiparametrically efficient rank-based inference for shape. I. Optimal rank-based tests for sphericity (coauthor: M. Hallin). *Annals of Statistics* **34**, 2707–2756 (2006).
16. Semiparametrically efficient rank-based inference for shape. II. Optimal R-estimation of shape (coauthors: M. Hallin and H. Oja). *Annals of Statistics* **34**, 2757–2789 (2006).
17. Parametric and semiparametric inference for shape: the role of the scale functional (coauthor: M. Hallin). *Statistics & Decisions* **24**, 327–350 (2006).
18. Chernoff-Savage and Hodges-Lehmann results for Wilks’ test of multivariate independence (coauthor: M. Hallin). In M. Silvapulle, Ed., *Beyond Parametrics in Interdisciplinary Research: Festschrift in Honor of Professor Pranab K. Sen*, I.M.S. Lecture Notes-Monograph Series, 184–196 (2008).
19. Optimal rank-based tests for homogeneity of scatter (coauthor: M. Hallin). *Annals of Statistics* **36**, 1261–1298 (2008).
20. Optimal detection of Fechner-asymmetry (coauthors: D. Cassart and M. Hallin). *Journal of Statistical Planning and Inference* **138**, 2499–2525 (2008).
21. A general method for constructing pseudo-Gaussian tests (coauthor: M. hallin). *Journal of the Japan Statistical Society* **38**, 27–40 (2008).
22. Pseudo-Gaussian inference in heterokurtic elliptical common principal components models (coauthors: M. Hallin and T. Verdebout). *Annales de l’ISUP*, LII, 9-24 (2008).
23. A canonical definition of shape. *Statistics and Probability Letters* **78**, 2240–2247 (2008).
24. Optimal tests for homogeneity of covariance, scale, and shape (coauthor: M. Hallin). *Journal of Multivariate Analysis* **100**, 422–444 (2009).
25. Signed-rank tests for location in the symmetric independent component model (coauthors: K. Nordhausen and H. Oja). *Journal of Multivariate Analysis* **100**, 821–834 (2009).
26. Discussion of “Invariant Co-ordinate Selection”, by D. E. Tyler, F. Critchley, L. Dümbgen, and H. Oja. *Journal of the Royal Statistical Society, series B* **71**, 577-578 (2009).
27. Le Cam optimal tests for symmetry against Ferreira and Steel’s general skewed distributions (coauthor: Chr. Ley). *Journal of Nonparametric Statistics* **21**, 943–967 (2009).
28. On multivariate runs tests for randomness. *Journal of the American Statistical Association* **104**, 1525-1538 (2009).
29. Multivariate quantiles and multiple-output regression quantiles: From  $L_1$  optimization to halfspace depth (coauthors: M. Hallin and M. Šiman). *Annals of Statistics* **38**, 635-669 (2010).

30. Rejoinder: Multivariate quantiles and multiple-output regression quantiles (coauthors: M. Hallin and M. Šíman). *Annals of Statistics* **38**, 694-703 (2010).
31. On the singularity of multivariate skew-symmetric models (coauthor: Chr. Ley). *Journal of Multivariate Analysis* **101**, 1434-1444 (2010).
32. Optimal rank-based testing for principal components (coauthors: M. Hallin and T. Verdebout). *Annals of Statistics* **38**, 3245-3299 (2010).
33. On the estimation of cross-information quantities in R-estimation. In J. Antoch, M. Hušková and P.K. Sen, Editors: *Nonparametrics and Robustness in Modern Statistical Inference and Time Series Analysis: A Festschrift in Honor of Professor Jana Jurečková*, I.M.S. Monographs-Lecture Notes, 35-45 (coauthors: D. Cassart and M. Hallin).
34. Multivariate skewing mechanisms: a unified perspective based on the transformation approach (coauthor: Chr. Ley). *Statistics and Probability Letters* **80**, 1685-1694 (2010).
35. Testing for common principal components under heterokurticity (coauthors: M. Hallin and T. Verdebout). *Journal of Nonparametric Statistics* **22**, 879-895 (2010).
36. On Fisher information matrices and profile log-likelihood functions in generalized skew-elliptical models (coauthor: Chr. Ley). *METRON International Journal of Statistics* **68**, 235-250 (2010).
37. On directional multiple-output quantile regression (coauthor: M. Šíman). *Journal of Multivariate Analysis* **102**, 193-212 (2011).
38. A class of optimal tests for symmetry based on local Edgeworth approximations (coauthors: D. Cassart and M. Hallin). *Bernoulli* **17**, 1063-1094 (2011).
39. A stochastic analysis of some two-person sports (coauthor: Y. Swan). *Studies in Applied Mathematics* **127**, 221-249 (2011).
40. LAN property for lacunar wavelet series multifractal model (coauthor: J.M. Loubes). *ESAIM: Probability and Statistics* **15**, 69-82 (2011).
41. Semiparametrically efficient inference based on signed ranks in symmetric independent component models (coauthor: P. Ilmonen). *Annals of Statistics* **39**, 2448-2476 (2011). With a peer-reviewed supplement.
42. Computing multiple-output regression quantile regions (coauthor: M. Šíman). *Computational Statistics and Data Analysis* **56**, 840-853 (2012).
43. Computing multiple-output regression quantile regions from projectional quantiles (coauthor: M. Šíman). *Computational Statistics* **27**, 29-49 (2012).
44. Runs tests (coauthor: Chr. Ley). In A. El-Shaarawi and W. Piegorsch, Editors, *Statistical Theory and Methods, Encyclopedia of Environmetrics*, 2nd edition, Wiley, New York, to appear.
45. Elliptical symmetry. In A. El-Shaarawi and W. Piegorsch, Editors, *Statistical Theory and Methods, Encyclopedia of Environmetrics*, 2nd edition, Wiley, New York, to appear.

46. Rank tests for elliptical graphical modeling (coauthor: Th. Verdebout). *Journal de la Société Française de Statistique*, to appear.

**Submitted:**

47. Pseudo-Gaussian and rank-based optimal tests for random individual effects in large  $n$  small  $T$  panels (coauthors: N. Bennala and M. Hallin).
48. Parametric and nonparametric tests for multivariate independence in IC models (coauthor: H. Oja and S. Taskinen).
49. Depth-based runs tests for bivariate central symmetry (coauthor: Chr. Ley).
50. Optimal rank-based tests for common principal components (coauthors: M. Hallin and Th. Verdebout).
51. Local constant and local bilinear multiple-output quantile regression (coauthors: M. Hallin, Z. Lu, and M. Šíman).

## 8 Talks in international meetings and conferences

1. XXXIIèmes Journées de Statistique, annual meeting of the French Statistical Society, Fès, Morocco, May 2000: *Sélection d'une suite de derniers succès dans une suite d'expériences aléatoires indépendantes*.
2. XXXIIIèmes Journées de Statistique, annual meeting of the French Statistical Society, Nantes, France, May 2001: *Tests optimaux pour le problème de position multivarié fondés sur les interdirections de Randles et les pseudo-rangs de Mahalanobis*.
3. XXXIVèmes Journées de Statistique, annual meeting of the French Statistical Society, Bruxelles, Belgium, May 2002: *Tests de bruit blanc multivarié optimaux fondés sur les interdirections de Randles et les rangs de Mahalanobis*.
4. International conference on current advances and trends in nonparametric statistics, Crete, Greece, July 2002: *Tests of randomness against VARMA dependence based on interdirections and Mahalanobis ranks*.
5. Fourth international conference on statistical data analysis based on the  $L_1$ -norm and related methods, Neuchâtel, Switzerland, August 2002: *Optimal tests of randomness based on interdirections and pseudo-Mahalanobis ranks for testing multivariate elliptic white noise against ARMA dependence*.
6. Fourth international conference on statistical data analysis based on the  $L_1$ -norm and related methods, Neuchâtel, Switzerland, August 2002: *Optimal one-sample testing procedures based on hyperplanes* (invited speaker).

7. Second Prague-Brussels seminar, Prague, Czech Republic, August 2002: *Affine-invariant linear hypotheses for the multivariate general linear model with ARMA error terms*.
8. XXXVèmes Journées de Statistique, annual meeting of the French Statistical Society, Lyon, France, June 2003: *Procédures optimales fondées sur les rangs multivariés (invited plenary talk, for the Marie-Jeanne Laurent-Duhamel prize)*.
9. Meeting on mathematical statistics, C.I.R.M. (Centre International de Rencontres Mathématiques), Marseille-Luminy, France, December 2003: *Optimal rank-based tests for sphericity*.
10. Workshop on multivariate time series analysis, Heidelberg, Germany, February 2004: *Multivariate signed rank tests in vector autoregressive order identification*.
11. XXXVIèmes Journées de Statistique, annual meeting of the French Statistical Society, Montpellier, France, May 2004: *Tests de sphéricité optimaux fondés sur les rangs*.
12. Sixth ICOSA (International Chinese Statistical Association) international conference, Singapore, July 2004: *Optimal rank-based tests for sphericity (invited talk)*.
13. Journées MAS de la SMAI, Nancy, France, September 2004: *Inférence semi-paramétrique sur la forme des lois elliptiques (invited talk)*.
14. Joint meeting of the Belgian, Dutch, Luxemburg, and French mathematical societies, Ghent, Belgium, May 2005: *A class of affine-equivariant rank-based estimators for the shape of an elliptical distribution (invited talk)*.
15. Workshop on nonparametric statistical methods, University of Tampere, Finland, June 2005: *Rank-based inference on the shape of elliptical distributions (invited talk)*.
16. Journées de la Statistique Rennaise, Université de Rennes, France, November 2005: *Rank-based estimation of shape (invited talk)*.
17. International Conference on Robust Statistics (ICORS), Lisbon, Portugal, July 2006: *efficiency- and validity-robust tests for homogeneity of scatter matrices*.
18. Conference on nonparametric statistics and related topics, Ottawa, Canada, September 2006: *Optimal rank-based tests for homogeneity of scatter (invited talk)*.
19. Workshop on robust and nonparametric statistical inference, Hejnice, Czech Republic, September 2007: *A new approach to R-estimation (invited talk)*.
20. Nonparametric statistics and mixture models: past, present, and future, Penn State University, USA, May 2008: *Rank-based tests of multivariate independence in independent component models (invited talk)*.
21. Joint Meeting of the Statistical Society of Canada and the Société Française de Statistique, Ottawa, Canada, May 2008: *Invariant methods for independent component models (invited plenary talk)*.

22. Twenty-second Nordic Conference on Mathematical Statistics, Vilnius, Lithuania, June 2008: *Invariant semiparametric methods for independent components models* (invited talk).
23. Second Brussels-Waseda Seminar on Time Series and Financial Statistics, Brussels, Belgium, June 2008: *A new approach to R-estimation*.
24. Joint Statistical Meetings, Denver, Colorado, USA, August 2008: *A new approach to R-estimation* (invited talk, for the *Gottfried E. Noether Young Scholar Award*).
25. Workshop on “Nonparametric Statistics, Refined, Redefined, and Renewed”, the University of Texas at Arlington, USA, April 2009: *On multivariate runs tests for randomness* (invited talk).
26. International Conference on Robust Statistics (ICORS), Parma, Italy, June 2009: *On multivariate runs tests for randomness*.
27. Fourth Brussels-Waseda Seminar on Time Series and Financial Statistics, Brussels, Belgium, June 2009: *Multivariate quantiles, from  $L_1$  optimization to halfspace depth*.
28. European Meeting of Statisticians, Toulouse, France, July 2009: *On multivariate runs tests for randomness*.
29. Conference on Nonparametric Statistics and Statistical Learning, The Ohio State University, USA, May 2010: (invited talk).
30. Conference on time series, quantile regression and model choice, University of Dortmund, Germany, September 2010: *Local bilinear multiple-output quantile regression* (invited talk).
31. 4th CSDA International Conference on Computational and Financial Econometrics (CFE’10), University of London, UK, December 2010: *Rank-based inference in independent component models* (invited talk).
32. Waseda symposium on Theory and Applications for Time Series Analysis, Waseda university, Japan, March 2011: *Rank tests for PCA* (invited talk).
33. Atami seminar, Atami, Japan, March 2011: *Depth-based runs tests for multivariate central symmetry* (invited talk).
34. Wonder Research Afternoon, Tilburg, The Netherlands, April 2011: *Multivariate runs tests* (invited talk).
35. IMA’s 3rd Conference on Mathematics in Sport, Manchester, United Kingdom, June 2011: *A stochastic analysis of some two-person sports*.
36. 19th Annual Meeting of the Belgian Statistical Society, Hasselt, Belgium, October 2011: *Rank-based ICA*.
37. 4th International Conference of the ERCIM Working Group on Computing & Statistics (ERCIM’11), University of London, UK, December 2011: *Semiparametrically efficient inference based on signed ranks in symmetric independent component models* (invited talk).

38. Workshop on robust methods for dependent data, Dortmund, Germany, February 2012: *R-estimation in independent component analysis* (invited talk).
39. First Conference of the International Society for Nonparametric Statistics, Chalkidiki, Greece, June 2012: *R-estimation in independent component analysis* (invited talk).

## 9 Other invited talks

1. Statistics seminar, KULeuven, Belgium, February 2002: *Optimal tests for multivariate location based on interdirections and pseudo-Mahalanobis ranks*.
2. Statistics seminar, Université de Lille I, France, December 2002: *Tests optimaux de bruit blanc multivarié fondés sur des rangs signés généralisés*.
3. Workshop on multivariate nonparametric statistics, Himos, Finland, January 2003: *Affine Invariant Linear Hypotheses for the Multivariate GLM with VARMA Error Terms*.
4. Statistics seminar, University of Jyväskylä, Finland, January 2003: *Hyperplane-based identification procedures for the order of a multivariate AR series*.
5. Statistics seminar, Université de Paris VI, February 2003: *Tests de bruit blanc multivarié optimaux fondés sur les interdirections de Randles et les rangs de Mahalanobis*.
6. Statistics seminar, Tilburg university, The Netherlands, March 2003: *Hyperplane-based procedures for testing elliptical randomness against VARMA dependence*.
7. GREMARS seminar, Université de Lille III, France, October 2003: *Optimal procedures based on interdirections and pseudo-Mahalanobis ranks for testing multivariate elliptic white noise against ARMA dependence*.
8. Statistics and Econometrics seminar, University of York, United Kingdom, October 2003: *Multivariate rank-based procedures for testing elliptical randomness against VARMA dependence*.
9. Statistics seminar, Université Catholique de Louvain, Belgium, December 2003: *Multivariate rank-based procedures for testing elliptical randomness against VARMA dependence*.
10. Statistics seminar, University of Orsay, France, January 2004: *Multivariate rank-based procedures for testing elliptical randomness against VARMA dependence*.
11. Statistics seminar, Université de Liège, Belgium, January 2004: *Optimal rank-based tests for sphericity*.
12. Statistics seminar, Institut für Mathematische Stochastik, Technical University of Braunschweig, Germany, May 2004: *Multivariate rank-based procedures for testing elliptical randomness against VARMA dependence*.

13. Statistics seminar, University of Dortmund, Germany, June 2004: *Optimal rank-based tests for sphericity.*
14. Stochastics colloquium, Institute for Mathematical Stochastics, University of Goettingen, Germany, October 2004: *Optimal rank-based tests for sphericity.*
15. Statistics seminar, Waseda University, Tokyo, Japan, January 2005: *Inference on the shape of elliptical distributions.*
16. Series of lectures on research in mathematics for first year Bachelor students in Mathematics, Vrije Universiteit Brussel, Belgium, March 2005: *Seeking the Holy Grail: ultimate estimators of multivariate location.*
17. Econometrics and Statistics seminar, Tilburg University, The Netherlands, April 2005: *On the shape of elliptical distributions. Rank-based estimators and tests.*
18. Statistics seminar, Universidad Carlos III de Madrid, Spain, May 2005: *Inference on the shape of elliptical distributions.*
19. Statistics seminar, University of Tampere, Finland, February 2006: *Rank-based tests for the equality of covariance matrices.*
20. Swiss Statistics Seminars, Institut für Exakte Wissenschaften, University of Bern, Switzerland, May 2006: *Rank-based tests of multivariate independence in independent component models.*
21. Statistics seminar, University of Dortmund, Germany, December 2006: *A class of affine-equivariant rank-based estimators for the shape of an elliptical distribution.*
22. Workshop on multivariate nonparametric statistics, Himos, Finland, janvier 2007: *Multivariate medians: A quick review and a new proposal.*
23. Statistics seminar, KULeuven, Belgium, February 2007: *Testing for multivariate independence in independent component models.*
24. Presentation for the Association of Belgian Science Journalists, Brussels, Belgium, janvier 2008: *Mathématique: Modèles et décision.*
25. ECORE seminar, Universit catholique de Louvain, Belgium, February 2008: *Independent component models: new extensions of the multivariate normal model.*
26. Statistics seminar, School of Public Health, Université Libre de Bruxelles, Belgium, April 2008: *Independent component (IC) models: new extensions of the multinormal model.*
27. Statistics seminar, Columbia University, New York, USA, November 2008: *Optimal rank-based tests for homogeneity of scatter.*
28. Statistics seminar, the University of Texas at Dallas, USA, April 2009: *Rank-based tests of multivariate independence in independent component models.*

29. Statistics seminar, University of Tampere, Finland, May 2009: *On multivariate runs tests for randomness.*
30. Statistics Seminar, Università di Padova, Italy, September 2009: *Singularities in skew-symmetric models: characterization results and asymptotic implications.*
31. Statistics Seminar, University of Bayreuth, Germany, January 2010: *Multivariate quantiles and multiple-output regression quantiles: From  $L_1$  optimization to halfspace depth.*
32. Statistics Seminar, The Open University, Milton Keynes, United Kingdom, February 2010: *Multivariate quantiles and multiple-output regression quantiles: From  $L_1$  optimization to halfspace depth.*
33. Econometrics and Statistics Seminar, EQUIPPE, Université de Lille III, France, March 2011: *Rank tests for PCA.*
34. Statistics Seminar, GREMAQ/TSE, Université des Sciences Sociales de Toulouse, France, May 2011: *Multivariate quantiles and multiple-output regression quantiles : from  $L_1$  optimization to halfspace depth.*
35. Seminar for Statistics, ETH Zurich, Switzerland, November 2011: *Rank-based inference for independent component analysis.*

## 10 Research interests

Multivariate analysis, Robust and invariant methods, Inference for stochastic processes and time series, Semiparametric inference, Asymptotic inference, Rank-based methods, Sequential decision problems.

## 11 Referee reports for...

*Annals of Statistics (5), Journal of the American Statistical Association (4), Journal of Multivariate Analysis (9), Journal of Statistical Planning and Inference (5), Statistics and Probability Letters (5), Computational Statistics and Data Analysis (4), Journal of Time Series Analysis (3), Test (2), Journal of the Royal Statistical Society B (1), Journal of Nonparametric Statistics (1), Journal of Econometrics (1), Journal of Financial Econometrics (1), Annals of the Institute of Mathematical Statistics (1), Statistical Science (1), Scandinavian Journal of Statistics (1), Canadian Journal of Statistics (1), Communications in Statistics (1), Journal of Statistical Software (1), Austrian Journal of Statistics (1), Journal of the Korean Statistical Society (1), Journal of Applied Statistics (1), Journal of Statistical Computation and Simulation (1), Biometrical Journal (1), Annals of Applied Probability (1), Sequential Analysis Journal (1), Statistical Papers (1), METRON International Journal of Statistics (1), IMS Collection Series (1).*