

Anne Vanhems - Curriculum Vitae

June 2016

Current Position and address

Professor of Statistics and Econometrics, Toulouse Business School, France (since 2002)

Researcher at Toulouse School of Economics, TSE, France

Address: Toulouse Business School
20 bd Lascrosses, BP7010
31068 Toulouse Cedex 7, France

Toulouse School of Economics
21, allées de Brienne
31000 Toulouse, France

e-mail: a.vanhems@tbs-education.fr

personal website: <https://sites.google.com/site/vanhemsa/home>

Education

- Qualified to university professor positions in applied mathematics (since 2013).
- Accredited to supervise research (HDR) in Applied Mathematics, University of Toulouse 1 (June 2011)
- Ph.D in Applied Mathematics, under the direction of Professor Jean-Pierre Florens - University de Toulouse 1 (1998- 2001) Thesis : Nonparametric study of solutions of differential equations
- Graduate (Economist - statistician) of ENSAE : Statistics and Economic Administration Graduate School (1998)
- DEA (credit program for Ph.D) in "Statistics and Random Models in Economics and Finance" - Université Paris 7 (1998)

Research interests

- Structural Econometrics and inverse problems
- Nonparametric functional estimation
- Production frontier

Publications

Articles in scientific journals:

- 'Nonparametric study of solutions of differential equations', *Econometric Theory* 2006, 22, 127-157.
- 'Nonparametric estimation of exact consumer surplus with endogeneity in price', *Econometrics Journal* 2010, 13, 80-98.
- 'Convergence rates for ill-posed inverse problems with an unknown operator', with Jan Johannes and Sebastien Van Bellegem, *Econometric Theory* 2011, 27, 522-545.
- "Explaining firms efficiency in the Ivorian manufacturing sector: a robust nonparametric approach", with Nolwenn Roudaut, *Journal of Productivity Analysis* 2012, 37, 155-169.
- "Statistical inference for DEA estimators of directional distances", with Leopold Simar and Paul Wilson, *European Journal of Operational Research* 2012, 220, 853-864.

- "Probabilistic characterization of directional distances and their robust versions", with Leopold Simar, *Journal of Econometrics* 2012, 166, 342-354.
- "Projection estimation in nonparametric instrumental regression", with Jan Johannes and Sébastien Van Belleghem, *Journal of Statistical and Planning Inference* 2013, 143, 24-39.
- "Non parametric instrumental regression with non convex constraints", with Markus Grasmair and Otmar Scherzer, *Inverse Problems* 2013, 29.
- "Irrational Financial markets", with Laurent Germain and Fabrice Rousseau, *Finance* 2014, 35, 107-146.
- "Spatial reallocation of areal data - a review", with Christine Thomas-Agnan and Do Van Huyen, *Revue d'Economie Régionale et Urbaine (RERU)* 2015 (1/2), 27-58.
- "Testing areal interpolation methods with US census 2010 data", with Christine Thomas-Agnan and Do Van Huyen, *Région et Développement* 2014, 40, 83-96.
- "Unobserved heterogeneity and endogeneity in nonparametric frontier estimation" with Leopold Simar and Ingrid Van Keilegom, *Journal of Econometrics* 2016, 190, 360-373.
- "Accuracy of areal interpolation methods: count data", with Christine Thomas-Agnan and Do Van Huyen (accepted in *Spatial Statistics*).
- "'J'aime pas les Stats!': mesure et analyse de l'attitude à l'égard des statistiques dans une école de management", with Kevin Carillo, Nadine Galy and Cameron Guthrie (accepted in *Statistique et Enseignement*)

Book chapters:

- "Non Parametric Hedge Fund Performance Appraisal: a directional robust application", with Laurent Germain and Nicolas Nalpas, in *Hedge Fund Replication*, edited by Greg N. Gregoriou & Maher Kooli, published by Palgrave Macmillan, Hampshire, 2011.
- "Financial Intermediaries with Brokerage Activities", with L. Germain and F. Rousseau, *Handbook of Trading*, 2010, chapter 26, 389-402, ed. G. Gregoriou, Mc Graw-Hill USA.
- 'Is it always optimal to impose constraints on nonparametric functional estimators? Some evidence on the smoothing parameter choice', with J.P. Florens, in *Functional and Operatorial Statistics*, 2008, 173-179, ed. S. Dabo-Niang & F. Ferraty, Physica-Verlag Heidelberg.

Grants and Awards

- Award winner in 2014 of the best article published in the journal *Finance*.
- Award winner of Fulbright grant from the Franco- American Commission (2001-2002)
- Research Scholarship from CREST institute, Paris (1998- 2001)

Visits

- Institute of Statistics, UCL Louvain La Neuve (March 2007, April-June-October 2010, Mars-April-June 2012)

- UCL London, Department of Economics (March 2004, September 2004, January 2008, March 2010)
- University of Heidelberg, Department of Statistics (January 2005, September 2007)
- Princeton University, Bendheim Center for Finance (April- June 2002)

Thesis supervision

- Master thesis « Nonparametric analysis of hedge funds performances », 2007-2008
- Ph-D Co-supervision of Do Van Huyen with Christine Thomas-Agnan, 2011-2015.
Subject : Spatial interpolation in statistics.

Teaching Areas

- Teaching assistant at the University Toulouse 1 in undergraduate and graduate classes from 1998 to 2001.
- At Toulouse Business School :
 - o Undergraduate courses of statistics and modelization and Data Analysis
 - o Graduate courses in financial econometrics
- Doctoral research course in quantitative methods in management at UNIRAZAK University, Kuala Lumpur, 2007- 2010
- Summer School in applied mathematics in finance, in Hanoi for graduate students from the international master of Dai Hoc So Pham, in June 2010

Managerial activities

- Head of the teaching department in statistics à Toulouse Business School , 2004-2011
- Organization of workshops in econometrics at Toulouse Business School, May 2004, May 2007, May 2008
- Member of program Committee and organization committee of the 45th Days in statistics, Toulouse May 2013.
- Organisation of a Finance conference in memory of Nicolas Nalpas, Toulouse January 2016.
- Member of the program committee of the workshop "Inverse problems: theory and statistical inference" in Heidelberg, October 2016.

Referee activities

Econometrica, Econometric Theory, Econometrics Journal, Journal of Econometrics, Journal of Applied Econometrics, SIAM, Inverse problems, Journal of productivity analysis, Bulletin of Economic Research, International Journal of Production and Economics, European Review of Agricultural Economics, Review of Economic Studies, European Journal of Operational research, Journal of Operational research society, Operation research

Other research referee activities

- European research council review panel 2009
- Inverse Problems Initiative evaluation panel for the Academy of Finland, September 2010
- Applied mathematics review panel for the Academy of Finland, March 2011

- National University of Ireland external examiner, department of Economics, Finance and Accounting, 2009-2013
- Fulbright research grant commissions, 2010, 2013
- NWO Social Sciences Board 2015-2016.

Conferences

- FPG' 13 (French-German-Polish) Conference on Optimization, Cracovia 2013
- French Econometrics Conference, Toulouse 2013, Orléans 2015
- 6th International conference of the ERCIM working group on Computational and Methodological statistics, London 2013.
- EWEPA conference, Verona 2011, Lecce 2015
- International society of nonparametric statistics, Greece 2012, Avignon 2016
- Econometric society meetings: EEA and ESEM Lausanne 2001, ESEM Venise 2002, ESEM Stockholm 2003, North American Summer meeting Providence 2004, World Congress London 2005, ESEM Milan 2008, LAMES Buenos Aires 2009, World Congress Shanghai 2010, ESEM Toulouse 2014.
- ISI (International Statistical Institute): World Congress Sydney 2005, Conference Lisbonne 2007
- EC² conference (European Conferences of the Econometrics Community), Rome 2008 « Structural microeconometrics », Toulouse 2010 “Identification”.
- SFDS (Societe Française de Statistiques): Fes 2000, Nantes 2001, Angers 2007
- Conference INSEE, Paris 2009
- Conference « Multivariate Statistical Analysis », Toulouse 2008
- Journées MAS de la SMAI, Lille, 2006
- International meeting of CORS/INFORMS , Banff Canada 2004
- AFSE (Association Française de Sciences Economiques) Paris 2004

Workshops

- Econometric Study Group, Bristol 2014
- “Symposium on regularization”, Department of applied mathematics, Canberra, 2012
- Workshop on “computational inverse problems”, Erwin Schrodinger International institute of mathematical physics, Vienna 2012, Obergurl 2016
- Workshop “Shape restrictions in non and semi parametric estimation of econometric models », Northwestern, 2010
- Workshop “Semi parametric and nonparametric methods in econometrics”, Banff, Canada, 2009
- Workshop « A tribute to Russell Davidson », Inference and Tests in Econometrics, Marseille GREQAM 2008
- CIRM (Centre International de Rencontres Mathématiques) Marseille 2007
- Workshop on inverse problems - Pascal Core event, Toulouse 2005
- “Semiparametrics in Rio” 2004
- Workshop on inverse problems, Aalborg, 2001.

Seminars

HEC Lausanne 2014; Université Libre de Bruxelles, centre ECARES 2013; Tata Institute for fundamental research, Bangalore 2012; Faculty of Mathematics, Vienna 2011; Brown

University 2010; Nuffield College Oxford 2010; Heidelberg 2005, 2007; Mannheim 2005; UCL London 2002, 2003, 2004, 2008, 2010; UCL Louvain la Neuve 2006, 2010, 2012; Cyprus university Nicosia 2009; NUIM Dublin 2008; University Toulouse1 2002, 2005, 2011; University of Bordeaux 2006; Madrid University Carlos III 2005; Copenhagen University 2005; GREQAM Marseille 2001.

Other professional experience

- October/June 97/98 CCF Paris : Financial series volatility modelling using a long memory process (FIGARCH)
- July/August 1997 IDEI (Institute of Industrial Economy) Subject: Estimation of surplus variations, in a study for the French Mail Service (La Poste)
- October/June 96/97 GPA Paris : Study of the evolution of GPA client portfolios
- July 1996 MATRA MARCONI SPACE Toulouse, Department of Project Control. Subject : risk management for spatial projects (using the @Risk software)

Musical skills

- march 2000 : First price in violin at « Concours de la Ville de Paris » ; Professor Sylvie Gazeau
- march 1999 : First price at unanimity at the concourse UFAM, 'Union des femmes Artistes Musiciennes', in Paris
- June 1998: First price in Chamber Music at "Concours de la Ville de Paris"

Musical activities

- Since 2012: Chamber music performances with Pierre Maréchal (piano)
- 2009-2013: member of Toulouse Philharmony orchestra and chamber music orchestra (Enharmony orchestra).
- 2006: Participation in 'Toulouse Les Orgues' international festival
- August 2000 : International music academy of Portogruaro, Italy
- July 2000: International music academy of Nice, France
- May 2000: Orchestra session with Toulouse Orchestra, France, Conductor: Michel Plasson
- Summer 1999: Festival Pablo Casals in Prades, France
- Summer 1998: Orchestre Français des Jeunes (OFJ), Conductor: Jesus Lopez Cobos
- Summers 1996-1997 : Academy of Sion, Swiss
- 1995-1996: Orchestra of the Sorbonne, Paris, France