July 2025

CURRICULUM VITAE

JEAN-FRANÇOIS RICHARD: Born on 02/10/1943 (Belgium)

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Academic Training - University of Louvain

"License" in Physics (1965)
"License et maitrise" in Economics (1968)
Ph.D. in Economics (1973)

Employment

1967 - 1968	Assistant (University of Louvain)
1968 - 1969	"Stagiaire de Recherche"; Fonds National de la Recherche Scientifique- C.R.B. Fellow: "W. Hallman Tuck Fellow"-Research Assistant (University of Chicago)
1969 - 1972	"Aspirant", Fonds National de la Recherche Scientifique (until November 1970) - Teaching Assistant (University of Louvain) - Research Assistant (C.O.R.E., Louvain)
1973 - 1978	"Charge de cours" (University of Louvain)
1973 - 1988	Research Associate (C.O.R.E., Louvain)
1973 - 1974	Visiting Lecturer (London School of Economics)
1978 - 1988	Professor (University of Louvain)
1983 - 1986	Research Director of C.O.R.E, Louvain.
1984 - 1985	Visiting Belgian Professor (University of London)
1986 - 1989	Visiting Professor (Duke University)
1989 - 1991	Professor of Statistics and Decision Sciences (Duke University) Adjunct Professor of Economics (Duke University)
1991 -1998	Professor of Economics (University of Pittsburgh)
1998 - 2021	Distinguished University Professor of Economics (University of Pittsburgh)
07/2000-06/2006, 09/2010-06/20124	Economics Department Chair
2000 -2004, 2017 - 2021	Adjunct Professor of Statistics (University of Pittsburgh)
2022 -	Distinguished University Professor Emeritus of Economics

Publications

1. Optimal Pricing and Inventory Decisions for Non-Seasonal Items, (with H. Kunreuther), *Econometrica* **39** (1), 1971, 173-75.

2. Use of Prior Information in the Analysis and Estimation of Cobb-Douglas Production Function Models, (with A. Zellner), *International Economic Review*, **14** (1), 1973,107-119.

3. Approches Classiques et Bayésienne des Systèmes Interdépendants, *Recherches Economiques de Louvain*, **3**, 1973, 327-341.

4. Bayesian Inference in Error-in-Variables Models, (with J.P. Florens and M. Mouchart), *Journal of Multivariate Analysis*, **4**, 1974, 419-452.

5. Production Planning over Time: Some Generalizations, in *Mathematical Programs for Activity Analysis*, (Chapter 14), edited by P. Van Moeseke, North Holland, 1974, 181-211.

6. A Note on the Information Matrix of the Multivariate Normal Distribution, *Journal of Econometrics*, **3** (1), 1975, 57-60.

7. Bayesian Analysis of Simultaneous Equation Models, in *Théorie de la Décision et Applications*, CNIPE Edition, 1975, 15-26.

8. Bayesian Analysis of the Regression Model when the Disturbances are Generated by an Autoregressive Process, in *New Developments in the Applications of Bayesian Methods*, (Chapter 11), edited by Aykac, A. and C. Brumat, North Holland, 1977, 185-210.

9. On the Evaluation of Poly-t Density Functions, (with H. Tompa), *Journal of Econometrics*, **12**, 1980, 335-351.

10. Models with Several Regimes and Changes in Exogeneity, *Review of Economic Studies*, **XLVII**, 1980, 1-20. Reprinted in *General – to – Specific Modelling,* edited by J. Campos, N. Ericsson and D.F. Hendry, Edwars Elgar, 2005.

11. Can Policy Instruments Be Treated as Exogenous Variables?, *HIS- Journal*, **4**, 1980, 123-130. Reprinted in *The Methodology of Econometrics*, edited by D.J. Poirer, Edward Elgar, 1994.

12. Comments on "Econometric Disequilibrium Models" by D. Quandt, *Econometric Reviews*, **1**, 1982, 81-87.

13. On the Formulation of Empirical Models in Dynamic Econometrics (with D.F. Hendry), *Journal of Econometrics*, **20**, 1982, 3-33. Reprinted in *Econometrics Alchemy or Science?* (Chapter 16), edited by D.F. Hendry, Blackwell, 1993. Reprinted in *The Methodology of Econometrics*, edited by D.J. Poirer, Edward Elgar, 1994. Reprinted in *Economic Policy*, edited by P. Whiteley, Edward Elgar, 1996. Reprinted in *General – to – Specific Modelling*, edited by J. Campos, N. Ericsson and D. F. Hendry, Edward Elgar, 2005.

14. Exogeneity, Causality and Structural Invariance in Econometric Modelling, in *Evaluating the Reliability of Macro-Economic Models*, (Chapter 7), edited by G.C. Chow and P. Corsi, Wiley and Sons, 1982, 105-112.

15. Bayesian Analysis of Simultaneous Equation Systems, (with J. Dreze), *The Handbook of Econometrics*, (Chapter 9), edited by Z. Griliches and M.D. Intriligator, North Holland, 1983, 519-598.

16. The Econometric Analysis of Economic Time Series, (with D.F. Hendry), *The International Statistical Review*, **51**, 1983, 111-163. Reprinted in *Econometrics Alchemy or Science?*, (Chapter 17), edited by D. F. Hendry, 1993, Blackwell, Oxford. Reprinted in *Foundations of Probability, Econometrics and Economic Games*, edited by O.F. Hamouda and J.C.R. Rowley, Edward Elgar, 1996.

17. Exogeneity, (with R.F. Engle and D.F. Hendry), *Econometrica*, **51** (2), 1983, 277-304. Reprinted in *Testing Exogeneity*, (Chapter 2), edited by N. R. Ericsson and J. S. Irons, 1994, Oxford University Press, Oxford. Reprinted in *Econometrics Alchemy or Science?* (Chapter 15), edited by D. F. Hendry, Blackwell, 1993. Reprinted in *The Methodology of Econometrics*, edited by D.J. Poirer, Edward Elgar, 1994. Reprinted in *Time Series*, edited by A. Harvey, Edward Elgar, 1994. Reprinted in *Foundations of Probability, Econometrics and Economic Games*, edited by O.F. Hamouda and J.C.R. Rowley, Edward Elgar, 1996. Reprinted in *General – to – Specific Modelling*, edited by J. Campos, N. Ericsson and D. F. Hendry, Edward Elgar, 2005.

18. Comments on "Model Specification Tests Against Non-Nested Alternatives," by J.G. MacKinnon, (with G. Mizon), *Econometric Reviews*, **2**, 1983, 131-136.

19. Classical and Bayesian Inference in Incomplete Simultaneous Equation Models, in *Econometrics and Quantitative Economics*, (Chapter 4), edited by D.F. Hendry and K.F. Wallis, Basil Blackwell, 1984, 61-102.

20. A 1-1 Poly-t Random Variable Generator, with Application to Monte Carlo Integration, (with L. Bauwens), *Journal of Econometrics*, **29** (1-2), 1985, 19-46.

21. The Encompassing Principle and its Application to Non-Nested Hypotheses, (with G. Mizon), *Econometrica*, **54** (3), 1986, 657-678. Reprinted in *Foundations of Probability, Econometrics and Economic Games*, edited by O.F. Hamouda and J.C.R. Rowley, Edward Elgar, 1996. Reprinted in *General – to – Specific Modelling*, edited by J. Campos, N. Ericsson and D. F. Hendry, Edward Elgar, 2005.

22. Structural Time Series Modeling: A Bayesian Approach, (with J.P. Florens and M. Mouchart), *The Journal of Applied Mathematics and Computation*, 1986, 365-400.

23. Exogeneity and Control in Econometric Time Series Modelling, in *Developments of Control Theory for Economic Analysis*, (Chapter 18), edited by C. Carraro and D. Sartore, Martinus Nijhoff, 1986, 327-339.

24. Stability of a UK Money Demand Equation: A Bayesian Approach to Testing Exogeneity, (with M. Lubrano and R.G. Pierse), *The Review of Economic Studies,* **53** (4), 1986, 603-634.

25. Dynamic Error-in-Variables Models and Limited Information Analysis (with M. Mouchart and J.P. Florens), *Annales d' Economie et de Statistique*, **6/7**, 1987, 289-310.

26. Bayesian Analysis of Systems of Seemingly Unrelated Regression Equations under a Recursive Extended Natural Conjugate Prior Density (with M. Steel), *The Journal of Econometrics*, **38**, 1988, 7-37.

27. Recent Developments in the Theory of Encompassing, (with D.F. Hendry), in *Contributions to Operation Research and Economics*, (Chapter 12), edited by B. Cornet and H. Tulkens, MIT Press, 1989. Reprinted in *General – to – Specific Modelling*, edited by J. Campos, N. Ericsson and D. F. Hendry, Edward Elgar, 2005.

28. A Dynamic Oligopoly Model with Demand Inertia and Inventories (with L. Philips), *Mathematical Social Sciences*, **18**, 1989, 1-32.

29. Phantom Bidding against Heterogeneous Bidders (with D.A. Graham and R.C. Marshall), *Economics Letters*, **32**, 1990, 13-17.

30. Differential Payments within a Bidder Coalition and the Shapley Value, (with D.A. Graham and R.C. Marshall), *The American Economic Review*, **80**, 1990, 493-510.

31. Bayesian Multivariate Exogeneity Analysis: An Application to a UK Money Demand Equation (with M. Steel), *The Journal of Econometrics*, **49**, 1991, 239-274.

32. The Private Attorney General Meets Public Contract Law: Procurement Oversight by Protest (with R.C. Marshall and M.J. Meurer), *Hofstra Law Review*, **20**, 1991, 1-71. Reprinted in *IRS Computer Modernization and Procurement*, Hearings before the Committee on Governmental Affairs United States Senate, June 25, 1991, and April 2, 1992, S. Hrg. 102-1104, 397-458.

33. Likelihood Evaluation for Dynamic Latent Variables Models (with D.F. Hendry), in *Computational Economics and Econometrics*, (Chapter 1) edited by H.M. Amman, D.A. Belsley and C.F. Pau, Kluwer, 1992, 3-17.

34. Posterior Probabilities of the Independence Axiom with Non-experimental Data (or Buckle up and Fan out) (with R.C. Marshall and G.A. Zarkin), *The Journal of Business and Economic Statistics*, **10**, 1992, 31-49.

35. Incentive-Based Procurement Oversight by Protest (with R.C. Marshall and M.J. Meurer), in *Incentives in Procurement Contracting,* edited by J. Leitzel and J. Tirole, Westview Press, 1993.

36. Encompassing in Stationary Linear Dynamic Models (with B. Govaerts and D.F. Hendry), *The Journal of Econometrics*, **63**, 1994, 245-270.

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43. Simulation Techniques in *The Econometrics of Panel Data: Handbook of Theory and Application* (chapter 23), edited by L. Matyas and P. Sevestre (2nd edition), Kluwer, Boston, 1996.

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45. Revenue Effects and Information Processing in English Common Value Auctions (with J.H. Kagel and D. Levin), *The American Economic Review*, **86**, 1996, 442-60.

46. Liftlining (with D. A. Graham and R. C. Marshall in *Advances in Applied Microeconomics* (vol. 6) edited by M. R. Baye, JAI Press Greenwich, 1996.

47. Bidder Collusion at Forest Service Timber Sales (with L.H. Baldwin and R.C. Marshall), *Journal of Political Economy*, **4**, 1997, 657-699.

48. Econometric Modelling of UK House Prices Using Accelerated Importance Sampling (with W. Zhang), *The Oxford Bulletin of Economics and Statistics*, **58**, 1996, 601-13.

49. Game Theory Econometric Models: Application to Procurements in the Space Industry (with J.P. Florens and M.A. Hugo), *The European Economic Review*, **41** (3-5), 1997, 951-959.

50. Equilibre Approximatif et Règle Intuitive : Une Application aux Appels d'Offres dans l'Industrie Spatiale (avec O. Armantier and J. P. Florens), *Economie et Prévision*, 132-133, 1998, 179-190.

51. Accelerated Monte Carlo Integration: An Application to Dynamic Latent Variables Models (with W. Zhang), Chapter 2 in *Simulation-Based Inference in Econometrics: Methods and Applications*, edited by R. Mariano, M. Weeks and T. Schuermann, Cambridge University Press, 1999.

52. Empirical Game Theoretic Models: Computational Issues (with O. Armantier), *Computational Economics*, **15**, 2000, 3-24.

53. Enchères : Théorie Economique et Réalité, (Conférence François-Albert Augers, 1999), *Actualité Economique*, **76**, 2000, 173-198.

54. Super-Experienced Bidders in First-Price Common Value Auctions: Rules of Thumb, Nash Equilibrium Bidding and the Winner's Curse (with J. Kagel). *The Review of Economics and Statistics*, **83**, 2001, 408-19.

55. Economic Development, Legality, and the Transplant Effect (with D. Berkowitz and K. Pistor). *European Economic Review*, **47**, 2003, 165-95.

56. Estimation of Dynamic Bivariate Mixture Models: Comment on Watanabe (2000) (with R. Liesenfeld). *The Journal of Business and Economic Statistics*, **21**, 2003, 570-576.

57. Monte Carlo Methods and Bayesian Computation: Importance Sampling (with R. Liesenfeld). *Encyclopedia of the Social and Behavioral Sciences*, Elsevier Science Ltd., 2003.

58. Univariate and Multivariate Stochastic Volatility Models: Estimation and Diagnostics (with R. Liesenfeld). The *Journal of Empirical Finance*, **10**, 2003, 505-531.

59. The Transplant Effect (with D. Berkowitz and K. Pistor), The *American Journal of Comparative Law*, **LI**, 2003, 163-204.

60. Dynamique des Interactions Fiscales entre les Communes Belges 1984 – 1997 (with H. Tulkens and M. Verdonck), *Economie et Prévision*, **156**, 2002, 1-14.

61. A Non-Linear Forecasting Model of GDP Growth (with D. DeJong and R. Liesenfeld), *The Review of Economics and Statistics*, **87** (4), 2005, 697-708.

62. Timing Structural Change: A Conditional Probabilistic Approach (with D. N. DeJong and R. Liesenfeld), *The Journal of Applied Econometrics*, **21**, 2006, 175-190.

63. The Impact of Delivery Synergies on Bidding in the Georgia School Milk Market (with R. C. Marshall, M. E. Raiff, and S. P. Schulenberg), *Berkeley Electronic Journal of Economic Analysis & Policy*, **6**, 2006.

64. Classical and Bayesian Analysis of Univariate and Multivariate Stochastic Volatility Models (with R. Liesenfeld), *Econometric Reviews*, **25** (2-3), 2006, 335-360.

65. Tax Interaction Dynamic Among Belgian Municipalities 1984-1997 (with H. Tulkens and M Verdonck), in *Public Goods Environmental Externalities and Fiscal Competition*, (Chapter 22), 2006, New York, Springer.

66. Efficient High-Dimensional Importance Sampling (with W. Zhang), *The Journal of Econometrics*, **141**, 2007, 1385-1411.

67. Efficient Filtering in State-Space Representations (with D. DeJong, H. Dharmarajan and R. Liesenfeld), *Journal of LaTeX class files,* **6**(1), 2007, 1-16.

68. Simulation Techniques for Panels: Efficient Importance Sampling. (with R. Liesenfeld). *The Econometrics of Panel Data: Fundamentals and Recent Developments in Theory and Practice*. (Chapter 13), edited by L. Matyas and P. Sevestre (3rd edition), Kluwer, Boston, 2008, 419-450.

69. Numerical Solutions of Asymmetric, First-Price, Independent Private Values Auctions (with W. Gayle), *Computational Economics*, **32** (3), 2008. 245-278.

70. Approximations of Bayesian Nash Equilibria (with O. Armantier and J.P. Florens). *The Journal of Applied Econometrics*, **23** (7), 2008, 965-981.

71. Improving MCMC Using Efficient Importance Sampling (with R. Liesenfeld), *Journal of Computational Statistics and Data Analysis,* **53**(2), 2008, 272-288.

72. Parametric and Non-Parametric Encompassing Procedures (with C. Bontemps and J.P. Florens). *Oxford Bulletin of Economics and Statistics*, **70** (6), 2008, 751-780.

73. Determinants and Dynamics of Current Account Reversals: an Empirical Analysis (with R. Liesenfeld and G. V. Moura), *Oxford Bulletin of Economics and Statistics*, **72** (4), 2010, 486-517.

74. The Dynamic Invariant Multinomial Probit Model: Identification, Pretesting and Estimation (with R. Liesenfeld), *The Journal of Econometrics*, **155** (2), 2010, 117-127.

75. Efficient Estimation of Probit Models with Correlated Errors (with R. Liesenfeld), *The Journal of Econometrics*, **156** (2), 2010, 367-376

76. Dynamic Factor Models for Multivariate Count Data: An Application to Stock-Market Trading Activity (with R. Jung and R. Liesenfeld), *Journal of Business and Economic Statistics*, **29** (1); 2011, 73-85.

77. Bayesian Analysis of a Probit Panel Data Model with Unobserved Heterogeneity and Autocorrelated Errors (with M. Burda and R. Liesenfeld). *International Journal of Statistics and Management System*, **6** (1-2), 2011, 1-21.

78. Coordinated Effects in the 2010 Horizontal Merger Guidelines (with W.-R. Gayle, R. C. Marshall, L. M. Marx), *Review of Industrial Organization*. **35** (1-2), 2011, 39-56.

79. Efficient Likelihood Evaluation of State-Space Representations (with D. N. DeJong, R. Liesenfeld, G. V. Moura, and H. Dharmarajan), *Review of Economic Studies*, **80** (2), 2013, 538-567.

80. Stochastic Volatility and Leverage: Application to a Panel of S & P 500 Stocks, (with S. S. Ozturk), *Finance Research Letters*, 12 (2015), 67-76.

81. Likelihood Evaluation of High-Dimensional Spatial Latent Gaussian Models with Non-Gaussian Response Variables (with R. Liesenfeld and J. Vogler), in *Advances in Econometrics,* Vol. 37, *Spatial and Spatiotemporal Econometrics,* edited by B. Baltagi, J. LeSage and K. Pace, Emerald Group Publishing Limited, 2017.

82. Likelihood Based Inference and Prediction in Spatio-Temporal Panel Count Models for Urban Crimes (with R. Liesenfeld and J. Vogler), *Journal of Applied Econometrics,* **32** (3), 2017, 600-620.

83. Finite Gaussian Mixture Approximations to Analytically Intractable Density Kernels (with N. Khorunzhina), *Journal of Computational Economics*, 2017, https://doi.org/10.1007/s10614-017-9777-2.
84. Balanced Growth Approach to Tracking Recessions (with M. Bozon). *Econometrics,* 2020,8(2), Special Issue: Celebrated Econometricians: David Hendry. https://dei.org/10.3390/econometrics8020014.
85. Bayesian Encompassing Specification Tests of a Parametric Model Against a Nonparametric Alternative (with J.P. Florens and J.M. Rolin), in *Nonparametric Bayesian Inference: Contributions by Jean-Marie Rolin,* (chapter 7), edited by J.P. Florens and M. Mouchart, Springer, 2024.

Books

1. *Posterior and Predictive Densities for Simultaneous Equation Models*, Springer Verlag, Berlin, 1973, 226 pp.

2. *Bayesian Inference in Dynamic Econometric Models* (with L. Bauwens and M. Lubrano), Oxford University Press, Oxford, 1999, 350 pp.

3. *Encompassing: Practical Applications Through simulation* (with R.C. Marshall and C. Shen), MIT Press, Cambridge, 2025, 123 pp.

Book Reviews

1. Efficient Estimation with a Priori Information, by T.J. Rothenberg, *Economica*, **43**, 1976, 207-208.

2. Specification Searches: Ad Hoc Inference with Non-Experimental Data, by E.E. Leamer. *Economica*, **68**, 1981, 210-211.

3. Econometrics and Structural Change by L.D. Broemeling and H. Tsurumi, *The Journal of the American Statistical Association*, **43**, 1988, 573.

4. Bayesian Full Information Analysis of Simultaneous Equation Models Using Integration by Monte Carlo, by L. Bauwens, (with J.M. Dickey), *SIAM Review*, **30**, 1988, 677-679.

5. Methods of Macroeconomic Dynamics, by S.J. Turnovsky, *Journal of Evolutionary Economics*, **7**, 1997, 91-92.

6. Econometric Modeling and Inference, by J. P. Florens, V. Marimoutou and A. Péguin-Feissolle, *Econometric Reviews*, 30 (5), 2011, 577-581.

Books Edited

1. *Analyse Discriminante*, edited by L. Bragard, J.F. Richard and L. Simar, CIACO, Louvain-la-Neuve, 1980.

2. *Economic Decision-Making: Games, Econometric and Optimization Contributions in Honor of Jacques H. Dreze*, edited by J.J. Gabsewicz, J.F. Richard and L. Wolsey, North Holland, Amsterdam, 1990.

Publications in Econometric Theory (Problems and Solutions)

1. Instrumental Variables Bivariate Exogeneity Test, *Econometric Theory*, 2(1), 1986, 154-56.

2. Instrumental Variables Bivariate Exogeneity Test, *Econometric Theory*, 4(1), 1988, 173-76.

Publications in the Post-Graduate Textbook series "Recyclage en Statistique"

1. Modèle a équations simultanées 2, in : *Analyse de régression*, edited by J.Delincé and M. Mouchart, Biométrie-Praximetrie, **XVII**, 1977, 61-70.

2. Colinéarité et structure particulière des résidus, in : *Analyse de régression*, edited by J. Delincé and M. Mouchart, Biométrie-Praximetrie, **XVII**, 1977, 71-88.

3. Introduction aux méthodes non paramétriques, in : *Méthodes non paramétriques*, edited by M. Mouchart and L. Simar, CIACO, Louvain-la-Neuve, 1978, 1-14.

4. Tests relatifs aux séries, in : *Méthodes non paramétriques*, edited by M. Mouchart and L. Simar, CIACO, Louvain-la-Neuve, 1978, 35-50.

5. Processus multinomial et tables de contingence a une entrée, in : *Analyse des données discrètes*, edited by G. Gerard and J.M. Rolin, CIACO, Louvain-la-Neuve, 1979, 19-48.

6. Analyse discriminante : introduction a la problématique (with L. Bragard and L. Simar), in: *Analyse Discriminante*, edited by L. Bragard, J.F. Richard and L. Simar, CIACO, Louvain-la-Neuve, 1980, 1-6.

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Discussion Papers

1. Center for Operations Research and Econometrics (CORE)

1. Production Planning over Time, Some Futher Considerations, 1969 (6930).

2. Bayesian Limited Information Analysis of Reduced Form Parameters in Simultaneous Equations Models, 1971 (7130).

3. Bayesian Inference in Error-in-Variables Models (with J.P. Florens and M. Mouchart), 1972 (7221).

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5. A Note on the Information Matrix of the Multivariate Normal Distribution, 1973 (7330).

6. Maximum Likelihood Estimation of a Cobb-Douglas Production Function for a Monopolistic Firm (with M. Kaluma), 1974 (7407).

7. Bayesian Analysis of the Regression Model when the Disturbances are Generated by an Autoregressive Process, 1975 (7516).

8. Likelihood Analysis of Linear Models (with J.P. Florens and M. Mouchart), 1976 (7619).

9. Statistical Analysis of Models with Several Regimes, 1978 (7822).

10. On the Evaluation of Poly-t Density Functions (with H. Tompa), 1978 (7835).

11. Exogeneity, Inference and Prediction in So-called Incomplete Dynamic Simultaneous Equation Models, 1979 (7922).

12. A Bayesian Approach to Hypothesis Testing and Evaluating Estimation Strategies (with N. Kiefer), 1979 (7927).

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14. Exogeneity, Causality and Structural Invariance in Econometric Modeling (with R.F. Engle and D.F. Hendry), 1980 (8038).

15. Specification of the Prior Density in Single Equation Errors-in Variables Models : an Application to a UK Money Demand Equation (with M. Lubrano), 1981 (8101).

16. Bayesian Analysis of Simultaneous Equation Systems (with J.H. Dreze), 1981 (8106).

17. The Econometric Analysis of Economic Time Series (with D.F. Hendry),1981 (8122).

18. The Encompassing Principle and its Application to Testing Non-Nested Hypotheses (with G.E. Mizon), 1983 (8330).

19. A Dynamic Oligopoly Model with Demand Inertia and Inventories (with L. Phlips), 1986 (8603).

20. Recent Developments in the Theory of Encompassing (with D.F. Hendry), 1987 (8722).

21. Futures Markets, Inventories and Monopoly (with T. Brianza and L. Philips), 1987 (8725).

2. Institute of Statistics and Decision Sciences (Duke University)

1. Auctioneer's Behavior at a Single Object English Auction with Heterogeneous Non-Cooperative Bidders (with D.A. Graham and R.C. Marshall), 1987 (87-01).

2. Differential Payments within a Bidder Coalition and the Shapley Value (with D.A Graham and R.C. Marhsall), 1987 (87-04).

3. Bayesian Analysis of Systems of Seemingly Unrelated Regression Equations under a Recursive Extended Natural Conjugate Prior Density (with M.F.J. Steel), 1987 (87-06).

4. Parsimonious Encompassing : an Application to Non-Nested Hypotheses and Hausman Specification Tests (with J.P. Florens and D.F. Hendry), 1987 (87-09).

5. Recent Developments in the Theory of Encompassing (with D.F. Hendry), 1988 (88-05).

6. Encompassing and Specificity (with J.P. Florens and D.F. Hendry), 1989 (89-02).

7. Encompassing in Finite Parametric Spaces (with J.P. Florens), 1989 (89-02).

8. Reserve Pricing at Single-Object Auctions (with R.C. Marshall), 1989 (89-08).

9. Posterior Probabilities of the Independence Axiom with Non-Experimental Data (with R.C. Marshall and G.A. Zarkin), 1989 (89-09).

10. Bayesian Multivariate Exogeneity Analysis : an Application to a U.K. Money Demand Equation (with M.F.J. Steel), 1990 (90-A01).

11. The Impact of Reserve Prices on the Technology of Procured Goods (with R.C. Marshall and M.J. Meurer), 1990 (90-A04).

12. Delegated Procurement and the Protest Process (with R.C. Marshall and M.J. Meurer), 1990 (90-A07).

13. Likelihood Evaluation for Dynamic Latent Variables Models (with D.F. Hendry),1990 (90-A15).

3. Others

1. Optimal Pricing and Inventory Decisions for Retail Stores (with H. Kunreuther), 1969, report 6934, Center for Mathematical Studies in Business and Economics, University of Chicago.

2. Decision Theory, Estimation Strategies and Model Choice (with N.M. Kiefer), 1987, CAE working paper 87-08, Cornell University.

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4. Encompassing in Regression Models: Parametric and Non-Parametric Procedures (with C. Bontemps and J.P. Florens), 1995, GREMAQ cahier 95.22.385.

5. Economic Development, Legality, and the Transplant Effect (with D. Berkowitz and K. Pistoor), 2000, The Williams Davidson Institute, working paper 308.

Working papers

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2. The Structure of Some Non-Nested Hypotheses Tests (with G.E. Mizon), 1981.

3. Quadratic Acceleration for Monte Carlo Likelihood Evaluation (with J. Danielsson),1992.

4. Identification and Estimation of a Class of Game Theoretic Models (with J.P. Florens and C. Protopopescu), 2001.

5. On the Structural Stability of U.S. GDP (with D. DeJong, H. Dharmarajan and R. Liesenfeld), 2004.

6. Semi-Structural Estimation of Empirical Auction Models (with G.-L. Gayle), 2004.

7. Semi-Structural Estimation of Empirical Auction Models : the Case of Asymmetric Auctions (with G.-L. Gayle), 2004.

8. Exploiting Non-Linearities in GDP Growth for Forecasting and Anticipating Turning Points (with D, DeJong, H. Dharmarajan and R. Liesenfeld), 2008.

9. Efficient Filtering in State-Space Representations (with D. DeJong, H. Dharmarajan and R. Liesenfeld), 2009.

Editorial Functions

-Member of the Editorial Board of the *Review of Economic Studies* 1976-1982, 1985-1987.

-Assistant Editor of the *Review of Economic Studies*, 1982-1985.

-Associate Editor of *Econometrica*, 1979-1984.

-Advisory Editor of the series: *Advanced Textbooks in Economics*, 1980-1991.

-Associate Editor of the *Journal of Econometrics*, 1990-1993.

-Member of the Editorial Board of *Econometrics*, 2012 - 2021

Refereeing Functions

(a) Major Journals:

American Economic Review
Annales d'Economie et de Statistique
Econometrica
Econometric Reviews
Economica
Economic Journal
European Economic Review
International Economic Review
Journal of the American Statistical Association
Journal of Applied Econometrics
Journal of Business and Economic Statistics
Journal of Econometrics
Journal of Econometric Theory

Journal of Forecasting
Journal of Multivariate Analysis
Journal of the Royal Statistical Society
Journal of Economic Studies
SIAM Review

(b) Granting Agencies:

NSF Economics
Social Sciences Research Council, England
FCAR (Canada)
KNAW (Holland)
Fonds National de la Recherche Scientifique (Belgium)

Thesis Supervisor

(a) Supervisor (* Denotes an Academic Appointment)

*Bauwens, Luc (1984) - Economics - Bayesian Full Information Analysis of Simultaneous Equation Models Using Integration by Monte Carlo (Published in Lecture Notes, Springer Verlag; Savage Award in 1985).

Wylleman, Edouard (1986) - Economics - On the Use of Business Survey Information in Macroeconometric Models.

*Govaerts, Bernadette (1987) - Sciences - Application of the Encompassing Principle to Linear Dynamic Models.

*Steel, Mark (1987) - Economics - A Bayesian Analysis of Multivariate Exogeneity: A Monte Carlo Approach.

*Danielsson, Jon. (1991) - Economics - Estimation of the Dynamic Stochastic Volatility Model for Asset Price Determination by Simulation Maximum Likelihood.

*Zhang, Wei. (1996) Accelerated Importance Sampling with Applications to Dynamic Latent Variable Models'.

*Armantier, Olivier. (1998) Empirical Game Theoretic Models: Theoretical, Numerical and Experimental Considerations.

*Gayle, George. (2003) Empirical Auction Models with Errors.

*Gayle, Wayne. (2006) Contributions to Structural Modeling and Estimation.

*Burda, Martin. (2007) Essays in Semiparametric Econometric and Panel Data Analysis.

Hariharan, Dhamarajan. (2008) Essays on Estimation of Non-Linear State-Space Models.

*Ozturk, Selin. (2009) Applications of Efficient Importance Sampling to Stochastic Volatility Models

*Zhang, Jipeng. (2011) Three Essays in Applied Microeconomics.

*Khorunzhina, Natalia. (2011) Essays on Structural Modeling of Life Cycle Behavior.

*Soytas, Mehmet. (2011) Essays on Life Cycle Dynastic Discrete Choice Models.

Kose, Tekin (2014) Essays on Asset Markets and Self-Assessed Health Status

*Boczon, Marta (2020) Essays in Econometrics

(b) Thesis Committee

Baldwin, L., Bates, T., Bonkowski, A., *Bontemps, Bouoiyour, J., *Bracht, J., Braga Alves, M., Bresky, M., *Cazal, C., *Checher, A. D., Cheng, H., Cheng, S., *Dave, C., *De Prins, D., *Ding, W., Dorann, L., Elbittar, A., *Farmer, A., *Feltovich, N., Gaba, A., *Gille, P., *Granato, J., *Guofu, Z., Hamori, S., Heeman, C., Huang, J., Huang, Y.-K., Illessy, J., *Jacob, K., Jones, C., *Lambert, J. P., Lee, B., *Leher, S., Ling, L., *Lubrano, M., Malavolti, L., Morrall, I., *Orsi, R., Orsmond, D., *Palm, F., *Patros, S., *Prasnikar, V., *Romeo, C., *Sbai, E., Scotto, F., Sembel, R., *Shuykla, L., *Smith, A., *Snessens, H., *Sowell, F., *Spanos, A., *Stenius, M., *Terrell, D., *Unver, U., *Van Dijk, H., Verdonck, M., *Warnick, J., *Wilbaut, S., *Wei, L., Xiang, M., Zhou, N.

Miscellaneous

-Founder and President of the Royal Automobile Club Junior (Belgium), 1964-1966.

-Co-Chairman (with J.M. Grandmont) of the European Meeting of Econometrics Society (Vienna, 1977).

-Chairman of the European Summer Workshop (Louvain-la-Neuve, 1978).

-Member of the Program Committee for the 1974, 1976, 1977, 1978, 1979, 1981, 1984, and 1986 European meetings of the Econometric Society.

-Member of the Program Committee for the 1980 World Meeting of the Econometric Society (Aix-en-Provence).

-Secretary of the European Standing Committee of the Econometric Society 1977-1979.

-Board Member of CORE Foundation, 1988.

-External Evaluation of the Department of Economics of the University of Montreal in 1989 (with J.Helliwell, UBC).

-Director of Graduate Studies (Institute of Economics, Louvain) 1980-1986.

-Director of Graduate Studies (ISDS, Duke University) 1988-1991

-Co-Founder and Member of the steering committee of the European Doctoral Program on Quantitative Economics 1980-1986.

-Director of Graduate Studies (Department of Economics, University of Pittsburgh) 1996-1999, 2010

-Member of the Program Committee for the 1998 North American summer meeting of the Econometric Society (Montreal).

-Marschack Lecture at the 1999 Australasian Meeting of the Econometric Society (Sydney).

-Auger Lecture at the 1999 Meeting of the “Société Canadienne d’Economie (Hull).

-Member of the Program Committee for the 2000 World Meeting of the Econometric Society (Seattle).

-Chair (Department of Economics, University of Pittsburgh) 2000 – 2006, 2010 - 2014

-Member of the Fulbright selection committee for Belgium and Netherlands, 2003 – 2005.

-Member of the Program Committee for the 2008 North American Summer Meeting of the Econometric Society.

-Panelist on the Economic Panel for the 2014 and 2016 NSF Graduate Research Fellowship program.

Honorary

-"W. Hallman Tuck Fellow" (CRB 1968).

-"Prix des Alumni de la Fondation Universitaire," in 1979 (attributed every five years to a Belgian economist under 36).

-Elected "Fellow" of the Econometric Society in 1980.

-Fellow of the *Econometric Journal* since 2007.

-Knight of the Order of Leopold (Belgium) since 1989.

-Fellow of the Center for Philosophy of Science, University of Pittsburgh.

-Who’s Who in America.

-Empire Who’s Who VIP.

- Madison Who’s Who.

-International Who’s Who Historical Society.

Research Contracts

1. Co-Principal Investigator of the contract I 14bis/6 under the "Programme National d'Impulsion a la Recherche en Informatique" of the Belgian Government, 1976-1979. ($300,000)

2. Co-Principal Investigator of the "Project d'Actions Concertées 80-85/12", CORE, Université Catholique de Louvain, Louvain-la-Neuve, 1980-1985. ($1,500,000) (These projects were

awarded on a highly competitive basis by the "Fonds National de la Recherche Scientifique"--the Belgian equivalent of NSF--under a program very similar to the current Science and Technology Research Centers program run by NSF.)

3. Co-Principal Investigator. National Science Foundation, Economics, SES-8708615, "Sellers and Heterogenous Bidders at Auctions: Non-Cooperative and Collusive Strategic Behavior," 11/87-11/89. ($190,946)

4. Co-Investigator. National Science Foundation, Mathematical Sciences, DMS-8804571, "Mathematical Sciences Research Equipment." ($73,950)

5. Co-Investigator. Pew Charitable Trust, "Defense Procurements and the Incentive to Innovate," 12/88-12/90. ($70,000)

6. Co-Investigator. National Science Foundation, Economics, SES-9012202, "Monte Carlo Simulation: Application in Econometrics and Economic Modeling," 08/90-07/92. ($48,707)

7. Co-Investigator. Ford Foundation, 8951329, "Supplier Influence in Defense Procurement and Economic Analysis," 10/89-10/91. ($41,000)

8. Principal Investigator. National Science Foundation, Economics, SES-9223365, "Dynamic Latent Variables Models-Likelihood Evaluation," 01/93-12/95. ($200,744)

9. Principal Investigator. National Science Foundation, Economics, SBR-9601220, "Empirical Analysis of Auction Data: Modelisation and Estimation", 07/96-06/98. ($134,300)

10. Principal Investigator, National Science Foundation, Economics, SBR-9907446, "Acquisition of a Workstation for Large Scale Monte Carlo Simulation", 1999. ($10,000)

11. Co-Investigator. National Science Foundation, SBR-9871313, "Major Research Instrumentation", 09/98-08/00. ($288,144)

12. Principal Investigator, National Science Foundation, Economics, SES – 0136408, "Semi-Structural Modeling of Empirical Auction Models", 02/02-01/05. ($234,609)

13. Principal Investigator, National Science Foundation, Economics, SES – 0516642, "An Integrated Treatment of Monte Carlo Numerical Integration Procedures", 09/05-08/08. ($198,635)

14. Co-investigator, National Science Foundations, SES-0850448, "Efficient Analysis of Non-Linear and Non-Gaussian State-Space Representations", 07/09-06/11. ($404,463)

15. Principal Investigator, National Science Foundation, SES-1529151, "Error-Correction Reinterpretation and Efficient Estimation of Dynamic Stochastic General Equilibrium Models", 06/16-05/17. ($112,284)