

Curriculum Vitae for David Nualart

David Nualart

Date and place of birth: 03/21/1951, Barcelona, Spain

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Current Position

Black-Babcock Distinguished Professor Emeritus
Kansas University, Department of Mathematics

EDUCATION

Licenciado en Ciencias (Matemáticas), University of Barcelona, 1972

PhD. in Mathematics, University of Barcelona, 1975

PROFESSIONAL EXPERIENCE

Assistant Professor, Department of Statistics, University of Barcelona, 1972-73

Associate Professor, Department of Statistics, University of Barcelona, 1973-76 and 1978-84

Associate Professor of Mathematics, Department of Mathematics, E.T.S.A.B., Polytechnique University of Barcelona, 1976-78

Professor of Statistics and Operational Research, Department of Statistics, University of Barcelona, 1984-2005

Director of the IMUB (Institute of Mathematics of the University of Barcelona), 2001-2004

Professor, Department of Mathematics, Kansas University, 2005-2012

Black-Babcock Distinguished Professor, Department of Mathematics, Kansas University, 2012-2022

RESEARCH INTERESTS

Stochastic analysis. Malliavin calculus. Anticipative stochastic calculus. Large deviations. Rough path analysis. Stochastic partial differential equations. Fractional Brownian motion. Mathematical finance.

AWARDS

- Elected Fellow of the Institute of Mathematical Statistics in 1997
- Doctor Honoris Causa by the University Blaise Pascal of Clermond-Ferrand in 1998
- Price *IBERDROLA de Ciencia y Tecnologia* in 1999
- Distinction for the Research by the *Generalitat de Catalunya* for the period 2000-2005
- Corresponding Member of the *Real Academia de Ciencias Exactas Físicas y Naturales* of Madrid (since 2003)
- Member of the *Reial Acadèmia de Ciències i Arts* of Barcelona (since 2003)
- Research Prize of the *Real Academia de Ciencias de Madrid* in 1991

- *G. Baley Price Award for Excellence in Teaching.* Department of Mathematics, Kansas University, 2008
- *International Conference on Malliavin Calculus and Stochastic Analysis in honor of David Nualart.* University of Kansas, March 2011
- *Olin Petefish Award (Higuchi Award) on Basic Sciences,* 2015
- *Wells Award,* Department of Mathematics, Kansas University, 2020
- Elected Fellow of the American Mathematical Society in 2022

PROFESSIONAL ACTIVITES

Postdoctoral Fellowship, *LAAS, Toulouse, France,* 1975-76

Visiting Professor, *Department of Mathematics, University of Paris-Sud (Orsay, France),* March 1979 and April-June 1980

Visiting Professor, *Department of Mathematics, Louis Pasteur University (Strasbourg, France),* March 1988

Invited Visitor, *Department of Mathematics and Computer Sciences, Bar-Ilan University (Ramat-Gan, Israel),* Nov. 1984, 5-18 May 1988

Invited Visitor, *Department of Mathematics, Simón Bolívar University (Venezuela),* April 1985

Visiting Professor, *Faculty of Sciences, University of Provence (Marseille, France),* Dec. 1985, March 1988, Dec. 1988, Feb. 1989

Visiting Professor, *Department of Mathematics, University of California (Irvine, USA),* Jan.-March 1986, June-Aug. 1987, Aug. 1990, July 1991

Visiting Professor, *Department of Mathematics, University of Rennes (France),* March 1987

Visiting Professor, *Department of Mathematics, University of Orléans (France),* June 1987

Invited Visitor, *Department of Electrical Engineering, Technion Israel Institute of Technology (Haifa, Israel),* May 1987, May-June 1988

Visiting Professor, *Department of Mathematics, University of Clermont-Ferrand (France),* Feb. 1988, April 1989

Invited Visitor, *Dipartimento di Matematica, Università degli studi di Roma (Roma, Italia),* June 20-24 1988

Invited Visitor, *BIBOS, University of Bielefeld (Germany),* Oct. 31 to Nov. 4 1988

Invited Visitor, *ENST (Paris, France),* March 1989

Visiting Professor, *Department of Mathematics, Ecole Polytechnique Fédérale de Lausanne (Switzerland),* Oct.-Dec. 1989

Invited Visitor, *Department of Mathematics, CINVESTAV (Mexico),* April-May 1990

Visiting Professor, *Laboratoire de Probabilités, University of Paris VI (Paris, France),* Oct. 1990 to March 1991, Feb. 1993, Feb.-July 1994

Invited Visitor, *Instituto de Matemáticas, Universidad de la República (Montevideo, Uruguay),* Aug. 1994

Invited Visitor, *Department of Mathematics, University of Southern California (Los Angeles, USA),* Aug. 1995

Invited Visitor, *Instituto de Matemáticas, UNAM (México),* Feb. 1996

Invited Visitor, *MSRI, (Berkeley, USA)*, Oct.-Nov. 1997

Invited Visitor, *Institut für Mathematik, Bochum University (Bochum, Germany)*, Dec. 1997

Visiting Professor, *Department of Mathematics, Kansas University (Lawrence, USA)*, August-December 2003

Invited Visitor, *Institute of Mathematics, Helsinki University of Technology (Helsinki, Finland)*, 7-27 May 2005

Visiting Professor, *Department of Mathematics, University of Lorraine, Nancy, France*, 1-31 May 2012

Visiting Professor, *CIB, École Polytechnique Fédérale de Lausanne, Lausanne, Switzerland*, 2-16 June 2012

INTERNATIONAL COMMITTEES

Member of the *Panel Mathematics and Information Sciences of the European Community*, 1992-94

Member of the *European Regional Committee of the Bernoulli Society*, 1992-94

Member of the *Council of the Bernoulli Society*, 1994-96

Member of the *Scientific Committee of the CRM* 2001-2005

Member of the *Scientific Committee of the RSME* 1999-2005

Member of the *Scientific Committee of the Probability Summer School at Saint Flour, France*, 2001-2011

Member of the *Committee on Fellows of the IMS*, 2010-2013

ORGANIZATIONAL ACTIVITY

Co-organizer of the Séminaire de Probabilités XXIII, Barcelona, Spain, Sept. 26-30, 1988

Co-organizer of the Barcelona Seminar of Stochastic Analysis, Sant Feliu de Guíxols, Spain, Sept. 23-27, 1991

Co-organizer of the Semester on Stochastic Analysis, CRM, Barcelona, Spain, Sept. 1991 to Feb. 1992

Chairman of a Round table on Anticipating stochastic differential equations at the Third European Symposium: Analysis and Probability, Paris, France, Jan. 6-10, 1992

Chairman of the Session on Stochastic Analysis in the 2nd International Symposium: Probability and Applications, Bloomington, Indiana, USA, March 18-21, 1993

Member of the Scientific Committee of Stochastic Partial Differential Equations and Random Media, Luminy, Marseille, France, May 30 to June 3, 1994

Organizer of the Barcelona meeting on Stochastic Analysis and its Applications, Barcelona, Spain, June 30 to July 4, 1997

Chairman of the Session on Recent Advances in Probability and Stochastic Analysis in the 51st Session of the International Statistical Institute, Istanbul, Turkey, August 18-27, 1997

Co-organizer of the Session on Malliavin Calculus in the annual program in Stochastic Analysis, MSRI, Berkeley, USA, Oct.-Nov.1997

Co-organizer of Infinite dimensional stochastic analysis. MSRI, Berkeley, USA, Nov. 3-7, 1997

Organizer of the Workshop on Fractional Brownian motion, IMUB, Barcelona, Spain, Feb. 15-16, 2001

Organizer of the Summer School of Stochastic and Finance, IMUB, Barcelona, Spain, Sept. 1-7, 2001

Co-organizer of the EuroConference on Stochastic Inequalities and their Applications, CRM, Barcelona, Spain, June 17-21, 2002

Chairman of the Organizing Committee of the 6th World Congress of the Bernoulli Society and 67th Annual Meeting of the Institute of Mathematical Statistics, IMUB, Barcelona, Spain, July 26-31, 2004

Chairman of the Panel Probability and Mathematical Statistics of the International Congress of Mathematics, Madrid, 2006

Local Organizer of the Seminar on Stochastic Processes 2012, Department of Mathematics, University of Kansas, March 22-24, 2012

Organizer of a special session on "Stochastic Analysis" at the 2012 AMS Central Section Meeting, Department of Mathematics, University of Kansas, March 30 to April 1-24, 2012

EDITORIAL WORK

Associate Editor, *SIAM Journal on Mathematical Analysis*, 2009-2014

Associate Editor, *Stochastics and Partial Differential Equations: Analysis and Computations*, 2012-2022

Associate Editor, *Bulletin des Sciences Mathématiques*, 2002-2021

Associate Editor, *Journal of Stochastic Analysis and its Applications*, 1990-2021

Associate Editor, *Publicacions Matemàtiques*, 1988-present

Associate Editor, *ALEA*, 2005-2021

Associate Editor, *TEST*, 1992-2012

Associate Editor, *Revista de la Real Academia de Ciencias Exactas, Físicas y Naturales*, 2009-present

Associate Editor, *Stochastic Processes and Their Applications*, 2009-2012

Associate Editor, *Electronic Journal of Probability*, 1995-2005 and 2009-2011

Associate Editor, *Electronic Communications in Probability*, 1995-2005 and 2009-2011

Associate Editor, *Bernoulli*, 1995-2009

Associate Editor, *Colectanea Mathematica*, 2000-2007

Associate Editor, *Revista Matemática Iberoamericana*, 2000-2006

Associate Editor, *Annals of Probability*, 1991-93

Associate Editor, *Probability Theory and Related Fields*, 1990-2000

Associate Editor, *Potential Analysis*, 1992-2006

Associate Editor, *Qüestió*, 1990-2006

Associate Editor, *Stochastica*, 1975-92

Associate Editor, *Annals de la Faculté de Sciences de Toulouse*, 1992-95

Chief Editor, *Electronic Communications in Probability*, 2006-2008

GRANTS

- DGICYT (Dirección General de Investigación Científica y Técnica) Project Number PB86-0238 (3,030,000 PTA), 1987-89. Title: *Applications of Malliavin calculus to some problems in stochastic analysis* (Principal Investigator)

- DGICYT Project Number PB90-0452 (6,471,000 PTA), 1990-92. Title: *Anticipating stochastic calculus* (Principal Investigator)
- NATO Collaborative Research Grant Programme, Project Number 910268 (887,250 PTA), 1991-92. Title: *Random fields and bilinear stochastic partial differential equations* (Principal Investigator of the Spanish team)
- DGICYT Project Number PB93-0052 (6,800,000 PTA), 1995-97, Title: *Stochastic partial differential equations* (Principal Investigator)
- EEC Science Programm. Project Number CT91-627 (2,862,000 PTA), 1992-94. Title: *Champs aléatoires et équations aux dérivées partielles stochastiques* (Principal Investigator of the Spanish team)
- EEC Science Programm. Project Number CT91-0459 (2,862,536 PTA), 1993-96. Title: *Stochastic Analysis* (Principal Investigator of the Spanish team)
- EEC TMR Program. Project Number ERBF MRX CT 960075 A (123,875 ECUS), 1997-2000. Title: *Stochastic Analysis and its Applications* (Principal Investigator of the Spanish team)
- DGICYT Project Number PB96-0087 (4,500,000 PTA), 1998-2000. Title: *Stochastic Evolution Equations* (Principal Investigator)
- MCyT (Ministerio de Ciencia y Tecnología) Project Number BFM2000-0598 (5,896,800 PTA), 2001-03. Title: *Stochastic modelling with fractal noises and Lévy processes* (Principal Investigator)
- MCyT (Ministerio de Ciencia y Tecnología) Project Number BFM2003-04294 (42,800 eur), 2004-06. Title: *Stochastic Analysis of Gaussian and Lévy processes* (Principal Investigator)
- INTAS Project Number 1999-00016 (90,000 ECUS), 2000-01. Title: *Stochastic calculus, statistics and limit theorems for stochastic processes and fields of semi- and nonsemimartingale type; asymptotics of random evolutions and of solutions of stochastic equations, applications to mathematical finance* (Principal Investigator of the Spanish team)
- CIRIT (Generalitat de Catalunya) Project 1995SGR 00143 (1,500,000 PTA) (Principal Investigator)
- CIRIT (Generalitat de Catalunya) Project 1997SGR 970207 (1,150,000 PTA) (Principal Investigator)
- CIRIT (Generalitat de Catalunya) Project 1999SGR 990060 (1,300,000 PTA) (Principal Investigator)
- CIRIT (Generalitat de Catalunya) Project SGR2001-00068 (45,075.91 Euros) (Principal Investigator)
- NSF grant DMS-0604207. June 2006 to May 2009. (\$ 170,000). Title: *Stochastic Calculus of Variations and Stochastic Analysis with Fractal Noises* (Principal Investigator)
- NSF grant DMS-0904538. June 2009 to May 2012. (\$ 347,552). Title: *Stochastic Analysis of Gaussian Fractional Noises* (Principal Investigator)

- NSF grant DMS-1140866. August 2011 to August 2012. (\$ 34,600). Title: *Seminar on Stochastic Processes 2012* (Principal Investigator)
- NSF grant DMS-1208625. August 2012 to July 2015. (\$ 315,000). Title: *Stochastic Analysis of Gaussian Fractional Noises* (Principal Investigator)
- ARO grant FED0070445. August 2013 to July 2016. (\$ 308,753). Title: *Stochastic Evolution Equations* (Principal Investigator)
- NSF grant DMS-1512891. August 2015 to July 2018. (\$ 332,275). Title: *Stochastic Partial Differential Equations, Fractional Noises and Limit theorems* (Principal Investigator)
- NSF grant DMS-1811181. August 2018 to July 2021. (\$ 330,000). Title: *Stochastic Analysis and Asymptotic Problems* (Principal Investigator)
- NSF grant DMS-2054735. August 2021 to July 2024. (\$ 272,401). Title: *Stochastic Calculus of Variations and Limit Theorems* (Principal Investigator)

PUBLICATIONS (articles in referred journals)

1. J. Aguilar, D. Nualart: Estimation optimale en puissances de degré N . *C. R. Acad. Sci. Paris Sér A-B* **284** (1977), no. 1, A81–A83.
2. D. Nualart: Weak convergence to the law of two-parameter continuous processes. *Z. Wahrsch. Verw. Gebiete* **55** (1981), no. 3, 255–259.
3. D. Nualart, M. Sanz: Changing time for two-parameter strong martingales. *Ann. Inst. H. Poincaré* **17** (1981), no. 2, 147–163.
4. D. Nualart: Martingales à variation indépendante du chemin. *Lecture Notes in Math.* **863** (1981) 128–148.
5. D. Nualart, M. Sanz: The conditional independence property in filtrations associated to stopping lines. *Lecture Notes in Math.* **863** (1981) 202–210.
6. D. Nualart, M. Sanz: A singular stochastic integral equation. *Proc. Amer. Math. Soc.* **86** (1982), no. 1, 139–142.
7. D. Nualart: Two-parameter diffusion processes and martingales. *Stochastic Process. Appl.* **15** (1983), no. 1, 31–57.
8. D. Nualart: Différents types de martingales à deux indices. *Lecture Notes in Math.* **986** (1983) 398–417.
9. D. Nualart: On the distribution of a double stochastic integral. *Z. Wahrsch. Verw. Gebiete* **65** (1983), no. 1, 49–60.
10. D. Nualart: On the quadratic variation of two-parameter continuous martingales. *Ann. Probab.* **12** (1984), no. 1, 445–457.
11. D. Nualart: Une formule d’Itô pour les martingales continues à deux indices et quelques applications. *Ann. Inst. H. Poincaré Probab. Statist.* **20** (1984), no. 3, 251–275.
12. D. Nualart: Variations quadratiques et inégalités pour les martingales à deux indices. *Stochastics* **15** (1985), no. 1, 51–63.

13. D. Nualart, M. Sanz: Malliavin calculus for two-parameter Wiener functionals. *Z. Wahrsch. verw. Gebiete* **70** (1985), no. 4, 573–590.
14. E. Merzbach, D. Nualart: Different kinds of two-parameter martingales. *Israel J. Math.* **52** (1985), no. 3, 193–208.
15. E. Merzbach, D. Nualart: A characterization of the spatial Poisson process and changing time. *Ann. Probab.* **14** (1986), no. 4, 1380–1390.
16. D. Nualart: Application du calcul de Malliavin aux équations différentielles stochastiques sur le plan. *Lecture Notes in Math.* **1204** (1986) 379–395.
17. D. Nualart: Malliavin calculus and stochastic integrals. *Lecture Notes in Math.* **1221** (1986) 182–194.
18. D. Nualart, M. Zakai: Generalized stochastic integrals and the Malliavin calculus. *Probab. Theory Relat. Fields* **73**, no. 2, (1986) 255–280.
19. D. Nualart, F. Utzet: A property of two-parameter martingales with path-independent variation. *Stochastic Process. Appl.* **24**, no. 1, (1987) 31–49.
20. D. Nualart: Some remarks on a linear stochastic differential equation. *Statist. Probab. Lett.* **5** (1987), no. 5, 231–234.
21. E. Merzbach, D. Nualart: A martingale approach to point processes in the plane. *Ann. Probab.* **16** (1988), no. 1, 265–274.
22. D. Nualart, M. Zakai: Generalized multiple stochastic integrals and the representation of Wiener functionals. *Stochastics* **23** (1988), no. 3, 311–330.
23. D. Nualart, É. Pardoux: Stochastic calculus with anticipating integrands. *Probab. Theory Related Fields* **78** (1988), no. 4, 535–581.
24. D. Nualart: Noncausal stochastic integrals and calculus. *Lecture Notes in Math.* **1316** (1988) 80–129.
25. D. Nualart, J. Vives: Continuité absolue de la loi du maximum d'un processus continu. *C. R. Acad. Sci. Paris* **307** (1988), no.7, 349–354.
26. R. Carmona, D. Nualart: Random nonlinear wave equations: propagation of singularities. *Ann. Probab.* **16** (1988), no. 2, 730–751.
27. R. Carmona, D. Nualart: Random nonlinear wave equations: smoothness of the solution. *Probab. Theory Related Fields* **79** (1988), no. 4, 469–580.
28. D. Nualart, A. S. Üstünel, M. Zakai: On the moments of a multiple Wiener-Itô integral and the space induced by the polynomials of the integral. *Stochastics* **25** (1988), no. 4, 233–240.
29. O. Julià, D. Nualart: The distribution of a double stochastic integral with respect to two independent Brownian sheets. *Stochastics* **25** (1988), no. 3, 171–182.
30. D. Nualart, J. Yeh: Existence of a strong solution to stochastic differential equations in the plane with stochastic boundary processes. *J. Multivariate Anal.* **28** (1989), no. 1, 149–171.

31. A. Millet, D. Nualart, M. Sanz: Integration by parts and time reversal for diffusion processes. *Ann. Probab.* **17** (1989), no. 1, 208–238.
32. D. Nualart, M. Zakai: Generalized Brownian functionals and the solution to a stochastic partial differential equation. *J. Funct. Anal.* **84** (1989), no. 2, 279–296.
33. D. Nualart, M. Sanz: Stochastic differential equations on the plane: Smoothness of the solution. *J. Multivariate Anal.* **31** (1989), no. 1, 1–29.
34. D. Nualart, J. Yeh: Dependence of the boundary condition for linear stochastic differential equations on the plane. *Stochastic Process. Appl.* **33** (1989), no. 1, 45–61.
35. A. Millet, D. Nualart, M. Sanz: Time-reversal for infinite dimensional diffusion. *Probab, Theory Related Fields* **82** (1989), no. 3, 315–347.
36. D. Nualart, M. Zakai: The partial Malliavin calculus. *Lecture Notes in Math.* **1372** (1989) 362–381.
37. D. Nualart: Une remarque sur le développement en chaos d’une diffusion. *Lecture Notes in Math.* **1372** (1989) 165–168.
38. Nguyen Minh Duc, D. Nualart, M. Sanz: Planar semimartingales obtained by transformations of two-parameter martingales. *Lecture Notes in Math.* **1372** (1989) 566–582.
39. D. Lépingle, D. Nualart, M. Sanz: Dérivation stochastique de diffusions réfléchies. *Ann. Inst. H. Poincaré Probab. Statist.* **25** (1989), no. 3, 283–305.
40. D. Nualart, M. Zakai: A summary of some identities of the Malliavin calculus. *Lecture Notes in Math.* **1390** (1989) 192–196.
41. D. Nualart, A. S. Üstünel: Mesures cylindriques et distributions sur l’espace de Wiener. *Lecture Notes in Math.* **1390** (1989) 186–191.
42. E. Merzbach, D. Nualart: Generalized holomorphic processes and differentiability. *J. Theoret. Probab.* **2** (1989), no. 4, 419–432.
43. D. Nualart et A. S. Üstünel: Une extension du Laplacien sur l’espace de Wiener et la formula d’Itô associée. *C. R. Acad. Sci. Paris* **309** (1989), no. 6, 383–386.
44. D. Nualart, M. Zakai: On the relation between the Stratonovich and Ogawa integrals. *Ann. Probab.* **17** (1989), no. 4, 1536–1540.
45. E. Merzbach, D. Nualart: Markov properties for point processes on the plane. *Ann. Probab.* **18** (1990), no. 1, 342–358.
46. Nguyen Minh Duc, D. Nualart: Stochastic processes possessing a Skorohod integral representation. *Stochastics Stochastics Rep.* **30** (1990), no. 1, 47–60.
47. Nguyen Minh Duc, D. Nualart, M. Sanz: Application of Malliavin calculus to a class of stochastic differential equations. *Probab. Theory Related Fields* **84** (1990), no. 4, 549–571.
48. D. Nualart, A. S. Üstünel, M. Zakai: Some relations among classes of σ -fields on Wiener space. *Probab. Theory Related Fields* **85** (1990), no.1, 119–129.

49. D. Nualart, M. Zakai: Multiple Wiener-Itô integrals possessing a continuous extension. *Probab. Theory Related Fields* **85** (1990), no.1, 129–135.
50. P. Bernard, D. Nualart: Régularité C^∞ des noyaux de Wiener d'une diffusion. *Ann. Inst. H. Poincaré Probab. Statist.* **26** (1990), no. 2, 287–297.
51. D. Nualart, J. Vives: Anticipative calculus for the Poisson process based on the Fock space. *Lecture Notes in Math.* **1426** (1990) 154–165.
52. D. Nualart, M. Sanz, M. Zakai: On the relation between increasing functions associated with two-parameter continuous martingales. *Stochastic Process. Appl.* **34** (1990), no. 1, 99–119.
53. Nguyen Minh Duc, D. Nualart, M. Sanz: The Doob–Meyer decomposition for anticipating processes. *Stochastics Stochastic Rep.* **34** (1991), no. 3-4, 221–239.
54. D. Nualart, É. Pardoux: Boundary value problems for stochastic differential equations. *Ann. Probab.* **19** (1991), no. 3, 1118–1144.
55. D. Nualart, É. Pardoux: Second order stochastic differential equations with Dirichlet boundary conditions. *Stochastic Process. Appl.* **39** (1991), no.1, 1–24.
56. D. Nualart, A.S. Üstünel: Geometric analysis of conditional independence on Wiener space. *Probab. Theory Related Fields* **89** (1991), no. 4, 407–422.
57. D. Nualart, M. Wschebor: Intégration par parties dans l'espace de Wiener et approximation du temps local. *Probab. Theory Related Fields* **90** (1991), no. 1, 83–109.
58. D. Nualart: Randomized stopping points and optimal stopping on the plane. *Ann. Probab.* **20** (1992), no. 2, 883–900.
59. A. Millet, D. Nualart: Support theorems for a class of anticipating stochastic differential equations. *Stochastics Stochastics Rep.* **39** (1992), no. 1, 1–24.
60. D. Nualart, É. Pardoux: White noise driven quasilinear SPDEs with reflection. *Probab. Theory Related Fields* **93** (1992), no. 1, 77–89.
61. R. Carmona, D. Nualart: Traces of random variables on Wiener space and the Onsager–Machlup functional. *J. Funct. Anal.* **107** (1992), no. 2, 402–438.
62. D. Nualart, J. Vives: Smoothness of Brownian local times and related functionals. *Potential Anal.* **1** (1992), no. 3, 257–263.
63. A. Millet, D. Nualart, M. Sanz: Large deviations for a class of anticipating stochastic differential equations. *Ann. Probab.* **20** (1992) 1902–1931.
64. M. Chaleyat Maurel, D. Nualart: The Onsager–Machlup functional for a class of anticipating processes. *Probab. Theory Related Fields* **94** (1992), no. 4, 247–270.
65. E. Mayer Wolf, D. Nualart, V. Pérez–Abreu: Large deviations for multiple Wiener-Itô integral processes. *Lecture Notes in Math.* **1526** (1992) 11–31.
66. G. da Prato, P. Malliavin, D. Nualart: Compact families of Wiener functionals. *C. R. Acad. Sci. Paris* **315** (1992), no. 12, 1287–1291.

67. D. Nualart, J. Vives: Chaos expansions and local times. *Publ. Mat.* **36** (1992), no. 2B, 827–836
68. P. Malliavin, D. Nualart: Quasi sure analysis of stochastic flows and Banach space valued smooth functionals on the Wiener space. *J. Funct. Anal.* **112** (1993), no. 2, 287–317.
69. P. Malliavin, D. Nualart: Quasi sure analysis and Stratonovich anticipative stochastic differential equations. *Probab. Theory Related Fields* **96** (1993), no. 1, 45–55.
70. D. Nualart: Anticipating stochastic differential equations. *Bull. Sci. Math.* **117** (1993), no. 1, 49–62.
71. P. Imkeller, D. Nualart: Continuity of the occupation density for anticipating stochastic integral processes. *Potential Anal.* **2** (1993), no. 2, 137–155.
72. M. Farré, D. Nualart: Nonlinear stochastic integral equations in the plane. *Stochastic Process. Appl.* **46** (1993), no. 2, 219–240.
73. R. Buckdahn, D. Nualart: Skorohod stochastic differential equations with boundary conditions. *Stochastics Stochastics Rep.* **45** (1993), no. 3-4, 211–235.
74. A. Grorud, D. Nualart, M. Sanz: Hilbert-valued anticipating stochastic differential equations. *Ann. Inst. H. Poincaré Probab. Statist.* **30** (1994), no. 1, 133–161.
75. D. Nualart, É. Pardoux: Markov field properties of solutions of white noise driven quasi-linear parabolic pdes. *Stochastics Stochastics Rep.* **48** (1994), no. 1-2, 17–44.
76. D. Nualart, M. Thieullen: Skorohod stochastic differential equations on random intervals. *Stochastics Stochastics Rep.* **49** (1994), no. 3-4, 149–167.
77. P. Imkeller, D. Nualart: Integration by parts on the Wiener space and the existence of occupation densities. *Ann. Probab.* **22** (1994), no. 1, 469–493.
78. L. Gorostiza, D. Nualart: Nuclear Gel'fand triples on Wiener space and applications to trajectorial fluctuations of particle systems. *J. Funct. Anal.* **125** (1994), no. 1, 37–66.
79. M. Ferrante, D. Nualart: On the Markov property of a stochastic difference equation. *Stochastic Process. Appl.* **52** (1994), no. 2, 239–250.
80. R. Buckdahn, D. Nualart: Linear stochastic differential equations and Wick products. *Probab. Theory Related Fields* **99** (1994), no. 4, 501–526.
81. C. Donati-Martin, D. Nualart: Markov property for elliptic stochastic partial differential equations. *Stochastics Stochastics Rep.* **46** (1994), no. 1-2, 107–115.
82. I. Gyöngy, D. Nualart: Implicit scheme for quasi-linear parabolic partial differential equations perturbed by space-time white noise. *Stochastic Process. Appl.* **58** (1995), no. 1, 57–72.
83. C. Florit, D. Nualart: A local criterion for smoothness of densities and application to the supremum of the Brownian sheet. *Statist. Probab. Lett.* **22** (1995), no. 1, 25–31.
84. A. Alabert, M. Ferrante, D. Nualart: Markov property of stochastic differential equations. *Ann. Probab.* **23** (1995), no. 3, 1262–1288.

85. M. E. Caballero, B. Fernández, D. Nualart: Smoothness of distributions for solutions of anticipating stochastic differential equations. *Stochastics Stochastics Rep.* **52** (1995), no. 3-4, 303–322.
86. I. Gyöngy, D. Nualart, M. Sanz-Solé: Approximation and support theorem in modulus spaces. *Probab. Theory Related Fields* **101** (1995), no. 4, 495–509.
87. D. Nualart, S. Tindel: Quasilinear stochastic elliptic equations with reflection. *Stochastic Process. Appl.* **57** (1995), no. 1, 73–82.
88. M. Chaleyat-Maurel, D. Nualart: Onsager-Machlup functionals for solutions of stochastic boundary value problems. *Lecture Notes in Math.* **1613** (1995) 44–55.
89. M. Ferrante, D. Nualart: Markov field property for stochastic differential equations with boundary conditions. *Stochastics Stochastics Rep.* **55** (1995), no. 1-2, 55–69.
90. D. Nualart, P. Protter: Skorohod integral of a product of two stochastic processes. *J. Theoret. Probab.* **4** (1996), no. 4, 1029–1037.
91. C. Florit, D. Nualart: Diffusion approximation for hyperbolic stochastic differential equations. *Stochastic Process. Appl.* **65** (1996), no. 1, 1–15.
92. T. Bojdecki, L. Gorostiza, D. Nualart: Time-localization of random distributions on Wiener space. *Potential Anal.* **6** (1997), no. 2, 183–205.
93. A. Kohatsu-Higa, J. León, D. Nualart: Stochastic differential equations with random coefficients. *Bernoulli* **3** (1997), no. 2, 233–245.
94. A. Alabert, D. Nualart: A second order Stratonovich differential equation with boundary conditions. *Stochastic Process. Appl.* **68** (1997), no. 1, 21–47.
95. D. Nualart, S. Tindel: Quasilinear stochastic hyperbolic differential equations with nondecreasing coefficient. *Potential Anal.* **7** (1997), no. 3, 661–680.
96. D. Nualart, B. Rozovskii: Weighted stochastic Sobolev spaces and bilinear SPDE's driven by space-time white noise. *J. Funct. Anal.* **149** (1997), no. 1, 200–225.
97. I. Gyöngy, D. Nualart: Implicit scheme for stochastic parabolic partial differential equations driven by space-time white noise. *Potential Anal.* **7** (1997), no. 4, 725–757.
98. M. Ferrante, D. Nualart: An example of non-Markovian stochastic two-point boundary value problem. *Bernoulli* **3** (1997), no. 4, 371–386.
99. R. Buckdahn, P. Malliavin and D. Nualart: Multidimensional linear stochastic differential equations. *Stochastics Stochastics Rep.* **62** (1997), no. 1-2, 117–145.
100. E. Alòs, D. Nualart: Anticipating stochastic Volterra equations. *Stochastic Process. Appl.* **72** (1997), no. 1, 73–95.
101. M. Chaleyat-Maurel, D. Nualart: Points of positive density for smooth functionals. *Electron. J. Probab.* **3** (1998), No. 1, 8 pp.
102. D. Nualart, S. Tindel: On two-parameter non-degenerate Brownian martingales. *Bull. Sci. Math.* **122** (1998), no. 4, 317–335.

103. Y. Hu, D. Nualart: Continuity of some anticipating integral processes. *Statist. Probab. Lett.* **37** (1998), no. 2, 203–211.
104. E. Alòs, D. Nualart: An extension of Itô’s formula for anticipating processes. *J. Theoret. Probab.* **11** (1998), no. 2, 493–514.
105. J. León, D. Nualart: Stochastic evolution equations with random generators. *Ann. Probab.* **26** (1998), no. 1, 149–186.
106. M. E. Caballero, B. Fernández, D. Nualart: Estimation of densities and applications. *J. Theoret. Probab.* **11** (1998), no. 3, 831–851.
107. I. Gyöngy, D. Nualart: On the stochastic Burgers’ equation in the real line. *Ann. Probab.* **27** (1999), no. 2, 782–802.
108. E. Alòs, J. León, D. Nualart: Stochastic heat equation with random coefficients. *Probab. Theory Related Fields* **115** (1999), no. 1, 41–94.
109. N. Lanjri Zaidi, D. Nualart: Burgers equation driven by space-time white-noise: absolute continuity of the solution. *Stochastics Stochastics Rep.* **66** (1999), no. 3-4, 273–292.
110. D. Nualart, V. Steblovskaya: Asymptotics of oscillatory integrals with quadratic phase function on Wiener space. *Stochastics Stochastics Rep.* **66** (1999), no. 3-4, 293–309.
111. S. Moret, D. Nualart: Quadratic covariation and Itô’s formula for smooth nondegenerate martingales. *J. Theoret. Probab.* **13** (2000), no. 1, 193–224.
112. E. Alòs, O. Mazet, D. Nualart: Stochastic calculus with respect to fractional Brownian motion with Hurst parameter less than 1/2. *Stochastic Process. Appl.* **86** (2000), no. 1, 121–139.
113. J. León, D. Nualart and R. Pettersson: The stochastic Burgers equation: finite moments and smoothness of the density. *Infin. Dimens. Anal. Quantum Probab. Relat. Top.* **3** (2000), no. 3, 363–385.
114. J. León, D. Nualart: Anticipating integral equations. *Potential Anal.* **13** (2000), no. 3, 249–268.
115. D. Nualart, C. Rovira: Large deviations for stochastic Volterra equations. *Bernoulli* **6** (2000), no. 2, 339–355.
116. D. Nualart, F. Viens: Evolution equation of a stochastic semigroup with white-noise drift. *Ann. Probab.* **28** (2000), no. 1, 36–73.
117. E. Alòs, D. Nualart, F. Viens: Stochastic heat equation with white-noise drift. *Ann. Inst. H. Poincaré Probab. Statist.* **36** (2000), no. 2, 181–218.
118. D. Nualart, W. Schoutens: Chaotic and predictable representations for Lévy processes. *Stochastic Process. Appl.* **90** (2000), no. 1, 109–122.
119. S. Moret, D. Nualart: Generalization of Itô’s formula for smooth nondegenerate martingales. *Stochastic Process. Appl.* **91** (2001), no. 1, 115–149.
120. S. Moret, D. Nualart: Exponential inequalities for two-parameter martingales. *Statist. Probab. Lett.* **54** (2001), no. 1, 13–19.

121. E. Alòs, O. Mazet, D. Nualart: Stochastic calculus with respect to Gaussian processes. *Ann. Probab.* **29** (2001), no. 2, 766–801.
122. L. Coutin, D. Nualart and C. A. Tudor: Tanaka formula for the fractional Brownian motion. *Stochastic Process. Appl.* **94** (2001), no. 2, 301–315.
123. E. Alòs, J. A. León and D. Nualart: Stochastic Stratonovich calculus for fractional Brownian. *Taiwanese J. Math.* **5** (2001), no. 3, 609–632.
124. D. Nualart and W. Schoutens: Backward stochastic differential equations and Feynman-Kac formula for Lévy processes, with applications in finance. *Bernoulli* **7** (2001), no. 5, 761–776.
125. S. Moret and D. Nualart: Onsager-Machlup functional for the fractional Brownian motion. *Probab. Theory Related Fields* **124** (2002), no. 2, 227–260.
126. D. Nualart and A. Rascanu: Differential equations driven by fractional Brownian motion. *Collect. Math.* **53** (2002), no. 1, 55–81.
127. N. Lanjri Zaidi, D. Nualart: Backward stochastic differential equations in the plane. *Potential Anal.* **16** (2002), no. 4, 373–386.
128. K. Burdzy and D. Nualart: Brownian motion reflected on Brownian motion. *Probab. Theory Related Fields* **122** (2002), no. 4, 471–493.
129. D. Nualart and Y. Ouknine: Regularization of differential equations by fractional noise. *Stochastic Process. Appl.* **102** (2002), no. 4, 103–116.
130. J. A. León, R. Navarro and D. Nualart: An anticipating calculus approach to the utility maximization of an insider. *Math. Finance* **13** (2003), no. 1, 171–185.
131. M. Erraoui, D. Nualart and Y. Ouknine: Hyperbolic stochastic partial differential equations with additive fractional Brownian sheet. *Stoch. Dyn.* **3** (2003), no. 2, 121–139.
132. D. Nualart and Y. Ouknine: Besov regularity of stochastic integrals with respect to the fractional Brownian motion with parameter $H > 1/2$. *J. Theoret. Probab.* **16** (2003), no. 2, 451–470.
133. E. Alòs and D. Nualart: Stochastic integration with respect to the fractional Brownian motion. *Stochastics Stochastics Rep.* **75** (2003), no. 3, 129–152.
134. F. Baudoin and D. Nualart: Equivalence of Volterra processes. *Stochastic Process. Appl.* **107** (2003), no. 2, 327–350. Corrigendum to “Equivalence of Volterra Processes” *Stochastic Process. Appl.* **115** (2005) 701–703.
135. N. Lanjri and D. Nualart: Smoothness of the law of the supremum of the fractional Brownian motion. *Electron. Comm. Probab.* **8** (2003) 102–111.
136. D. Nualart, C. Rovira and S. Tindel: Probabilistic models for vortex filaments based on fractional Brownian motion. *Ann. Probab.* **31** (2003), no. 4, 1862–1899.
137. B. Maslowski and D. Nualart: Evolution equations driven by a fractional Brownian motion. *J. Funct. Anal.* **202** (2003), no. 1, 277–305.
138. J. M. Corcuera, P. Imkeller, A. Kohatsu-Higa and D. Nualart: Additional utility of insiders with imperfect dynamical information. *Finance Stoch.* **8** (2004), no. 3, 437–450.

139. D. Nualart and Y. Ouknine: Regularization of quasilinear heat equations by a fractional noise. *Stoch. Dyn.* **4** (2004), no. 2, 201–221.
140. Y. Mishura and D. Nualart: Weak solution for stochastic differential equations with additive fractional noise. *Statist. Probab. Lett.* **70** (2004), no. 4, 253–261.
141. D. Nualart and G. Peccati: Central limit theorems for sequences of multiple stochastic integrals. *Ann. Probab.* **33** (2005), no. 1, 177–193.
142. Y. Hu and D. Nualart: Renormalized self-intersection local time for fractional Brownian motion. *Ann. Probab.* **33** (2005), no. 3, 948–983.
143. Y. Hu and D. Nualart: Some processes associated with fractional Bessel processes. *J. Theoret. Probab.* **18** (2005), no. 2, 377–397.
144. J. Guerra and D. Nualart. The $1/H$ -variation of the divergence integral with respect to the fractional Brownian motion for $H > 1/2$ and fractional Bessel processes. *Stochastic Process. Appl.* **115** (2005), no. 1, 91–115.
145. J. León and D. Nualart: An extension of the divergence operator for Gaussian processes. *Stoch. Process. Appl.* **115** (2005), no. 3, 481–492.
146. J. M. Corcuera, D. Nualart and W. Schoutens: Completion of a Lévy Market by Power-Jump Assets. *Finance Stoch.* **9** (2005), no. 1, 109–127.
147. P. Cheridito and D. Nualart: Stochastic integral of divergence type with respect to fractional Brownian motion with Hurst parameter $H \in (0, \frac{1}{2})$. *Ann. Inst. H. Poincaré Probab. Statist.* **41** (2005), no. 6, 1049–1081.
148. D. Nualart and P. Vuillermot: Variational solutions for partial differential equations driven by fractional noise. *J. Funct. Anal.* **232** (2006), no. 2, 390–454.
149. F. Baudoin and D. Nualart: Notes on the two-dimensional fractional Brownian motion. *Ann. Probab.* **34** (2006), no. 1, 159–180.
150. J. M. Corcuera, J. Guerra, D. Nualart and W. Schoutens: Optimal investment in a Lévy Market. *Appl. Math. Optim.* **53** (2006), no. 3, 279–309.
151. J. M. Corcuera, D. Nualart and J. H. C. Woerner: Power-variation of some long-memory processes. *Bernoulli* **12** (2006), no. 4, 713–735.
152. D. Nualart: Stochastic calculus with respect to fractional Brownian motion. *Ann Fac. Sci. Toulouse Math. (6)* **15** (2006), no. 1, 63–78.
153. D. Nualart and M. Taqqu: Wick-Itô formula for Gaussian processes. *Stoch. Anal. Appl.* **24** (2006), no. 3, 599–614.
154. J. León and D. Nualart: Clark-Ocone formula for fractional Brownian motion with Hurst parameter less than $\frac{1}{2}$. *Stoch. Anal. Appl.* **24** (2006), no. 2, 427–449.
155. Y. Hu and D. Nualart: Regularity of renormalized self-intersection local time for fractional Brownian motion. *Commun. Inf. Syst.* **7** (2007), no. 1, 21–30.

156. J. M. Corcuera, D. Nualart and J. H. C. Woerner: A functional central limit theorem for the realized power variation of integrated stable process. *Stoch. Anal. Appl.* **25** (2007), no. 1, 169–186.
157. D. Nualart and S. Ortiz: Intersection local time for two independent fractional Brownian motions. *J. Theoret. Probab.* **20** (2007), no. 4, 759–767.
158. D. Nualart and L. Quer-Sardanyons: Existence and smoothness of the density for spatially homogeneous SPDEs. *Potential Anal.* **27** (2007), no. 3, 281–299.
159. L. Decreasefond and D. Nualart: Hitting times of Gaussian processes. *Ann. Probab.* **36** (2008), no. 1, 319–330.
160. D. Nualart, S. Ortiz: Central limit theorems for multiple stochastic integrals and Malliavin calculus. *Stochastic Process. Appl.* **118** (2008), no. 4, 614–628
161. D. Nualart and M. Taqqu: Wick-Itô formula for regular processes and applications to the Black and Scholes formula. *Stochastics* **80** (2008), no. 5, 477–487.
162. J. Guerra and D. Nualart: Stochastic differential equations driven by fractional Brownian motion and a standard Brownian motion. *Stoch. Anal. Appl.* **26** (2008), no. 5, 1053–1075.
163. Y. Hu, D. Nualart and X. Song: A singular stochastic differential equation driven by fractional Brownian motion. *Statist. Probab. Lett.* **75** (2008), no. 14, 2075–2085.
164. J. Feng and D. Nualart: Stochastic scalar conservation laws. *J. Funct. Anal.* **255** (2008), no. 2, 313–373.
165. D. Nualart and S. Ortiz: An Itô-Stratonovich formula for Gaussian processes: a Riemann sums approach. *Stochastic Process. Appl.* **118** (2008), no. 5, 1803–1819.
166. C. Mueller and D. Nualart: Regularity of the density for the stochastic heat equation. *Electron. J. Probab.* **74** (2008), no. 74, 2248–2258.
167. Y. Hu, D. Nualart and J. Song: Integral representation of renormalized self-intersection local times. *J. Funct. Anal.* **255** (2008), no. 9, 2507–2532.
168. Y. Hu and D. Nualart: Stochastic heat equation driven by fractional noise and local times. *Probab. Theory Related Fields* **143** (2009), no. 1-2, 285–328.
169. D. Nualart and B. Saussereau: Malliavin calculus for stochastic differential equations driven by a fractional Brownian. motion. *Stochastic Process. Appl.* **119** (2009), no. 2, 391–409.
170. Y. Hu and D. Nualart: Rough path analysis via fractional calculus. *Trans. Amer. Math. Soc.* **361** (2009), no. 5, 2689–2718.
171. P. Lei and D. Nualart: A decomposition of the bifractional Brownian motion and some applications. *Statist. Probab. Lett.* **79** (2009), no. 5, 619–624.
172. Y. Hu, D. Nualart and J. Song: Fractional martingales and characterization of the fractional Brownian motion. *Ann. Probab.* **37** (2009), no. 6, 2404–2430.
173. J. M. Corcuera, D. Nualart and J. H. C. Woerner: Convergence of certain functionals of integral fractional processes. *J. Theoret. Probab.* **23** (2009), no. 4, 856–971.

174. T. Duncan and D. Nualart: Existence of strong solutions and uniqueness in law for stochastic differential equations driven by fractional Brownian motion. *Stoch. Dyn.* **9** (2009), no. 3, 423–435.
175. D. Nualart and L. Quer-Sardanyons: Gaussian density estimates for solutions to quasi-linear stochastic partial differential equations. *Stochastic Process. Appl.* **119** (2009), no. 11, 3914–3938.
176. Y. Hu and D. Nualart: Stochastic integral representation of the L^2 modulus of Brownian local time and a central limit theorem. *Electron. Commun. Probab.* **14** (2009) 529–539.
177. I. Nourdin and D. Nualart. Central limit theorems for multiple Skorohod integrals. *J. Theoret. Probab.* **23** (2010), no. 1, 39–64.
178. Y. Hu and D. Nualart: Parameter estimation for fractional Ornstein-Uhlenbeck processes. *Statist. Probab. Lett.* **80** (2010), no. 11–12, 1030–1038.
179. I. Nourdin, D. Nualart and C. A. Tudor: Central and non-central limit theorems for weighted power variations of fractional Brownian motion. *Ann. Inst. H. Poincaré Probab. Stat.* **46** (2010), no. 4, 1055–1079.
180. S. Darses, I. Nourdin and D. Nualart: Limit theorems for nonlinear functionals of Volterra processes via white noise analysis. *Bernoulli* **16** (2010), no. 4, 1262–1293.
181. K. Es-Sebaiy, D. Nualart, Y. Ouknine and C. A. Tudor: Occupation densities for certain processes related to fractional Brownian motion. *Stochastics* **82** (2010), no. 1–3, 133–147.
182. Y. Hu and D. Nualart: Central limit theorem for the third moment in space of the Brownian local time increments. *Electron. Commun. Probab.* **15** (2010) 396–410.
183. Y. Hu, D. Nualart and J. Song: Feynman-Kac formula for the heat equation driven by fractional white noise. *Ann. Probab.* **39** (2011), no. 1, 291–326.
184. D. Nualart and S. Tindel: A construction of the rough path above fractional Brownian motion using Volterra’s representation. *Ann. Probab.* **39** (2011), no. 3, 1061–1096.
185. M. Besalú and D. Nualart: Estimates for the solution to stochastic differential equations driven by a fractional Brownian motion with Hurst parameter $H \in (1/3, 1/2)$. *Stoch. Dyn.* **2 & 3** (2011), no. 2–3, 243–263.
186. D. Nualart and L. Quer-Sardanyons: Optimal Gaussian density estimates for a class of stochastic equations with additive noise. *Infin. Dimens. Anal. Quantum Probab. Relat. Top.* **14** (2011), no. 1, 25–34.
187. Y. Hu, D. Nualart and X. Song: Malliavin calculus for backward stochastic differential equations and applications to numerical solutions. *Ann. Appl. Probab.* **21** (2011), no. 6, 2379–2423.
188. D. Harnett and D. Nualart: Weak convergence of the Stratonovich integral with respect to a class of Gaussian processes. *Stochastic Process. Appl.* **122** (2012), no. 10, 3460–3505.
189. Y. Hu, F. Lu and D. Nualart: Feynman-Kac formula for the heat equation driven by fractional noise with Hurst parameter $H < 1/2$. *Ann. Probab.* **40** (2012), no. 3, 1041–1068.

190. P. Lei and D. Nualart: Stochastic calculus for Gaussian processes and application to hitting times. *Commun. Stoch. Anal.* **6** (2012), no. 3, 379–402.
191. Y. Hu, D. Nualart and J. Song: A nonlinear stochastic heat equation: Hölder continuity and smoothness of the density of the solution. *Stochastic Process. Appl.* **123** (2013), no. 3, 1083–1103.
192. I. Nourdin, D. Nualart and G. Poly: Absolute continuity and convergence of densities for random vectors on Wiener chaos. *Electron. J. Probab.* **18** (2013), no. 22, 1–19.
193. D. Harnett and D. Nualart: Central limit theorem for a Stratonovich integral with Malliavin calculus. *Ann. Probab.* **41** (2013), no. 4, 2820–2879.
194. Y. Hu, F. Lu and D. Nualart: Hölder continuity of the solution for a class of nonlinear SPDE's arising from one dimensional superprocesses. *Probab. Theory Related Fields* **156** (2013), no. 1-2, 27–49.
195. D. Nualart and F. Xu: Central limit theorem for an additive functional of the fractional Brownian motion II. *Electron. Commun. Probab.* **18** (2013), no. 74, 10 pp.
196. D. Nualart and J. Swanson: Joint convergence along different subsequences of the signed cubic variation of fractional Brownian motion II. *Electron. Commun. Probab.* **18** (2013) no. 81, 11 pp..
197. Y. Hu, F. Lu and D. Nualart: Non-degeneracy of some Sobolev pseudo-norms of fractional Brownian motion. *Electron. Commun. Probab.* **18** (2013) no. 84, 8 pp.
198. D. Harnett and D. Nualart: Central limit theorem for an iterated integral with respect to fBm with $H > \frac{1}{2}$. *Stochastics* **86** (2014), no. 2, 187–202.
199. Y. Hu, D. Nualart and F. Xu: Central limit theorem for an additive functional of the fractional Brownian motion. *Ann.f Probab.* **42** (2014), no. 1, 168–203.
200. Y. Hu, F. Lu and D. Nualart. Convergence of densities of some functionals of Gaussian processes. *J. Funct. Anal.* **266** (2014), no. 2, 814–875.
201. K. Burdzy, D. Nualart and J. Swanson: Joint convergence along different subsequences of the signed cubic variation of fractional Brownian motion. *Probab. Theory Related Fields* **159** (2014), no. 1-2, 237–272.
202. Y. Hu, D. Nualart and J. Song: The $\frac{4}{3}$ -variation of the derivative of the self-intersection Brownian local time and related processes. *J. Theoret. Probab.* **27** (2014), no. 3, 789–825.
203. D. Nualart and F. Xu: A second order limit law for occupation times of the Cauchy process. *Stochastics* **86** (2014), no. 6, 967–974.
204. D. Nualart F. Xu: Central limit theorem for functionals of two independent fractional Brownian motions. *Stochastic Process. Appl.* **124** (2014), no. 11, 3782–3806.
205. Y. Hu, J. Huang and D. Nualart: On Hölder continuity of the solution of stochastic wave equations in dimension three. *Stoch. Partial Differ. Equ. Anal. Comput.* **2** (2014), no. 3, 353–407.
206. D. Nualart and V. Pérez-Abreu: On the eigenvalue process of a matrix fractional Brownian motion. *Stochastic Process. Appl.* **124** (2014), no. 12, 4266–4282.

207. J. M. Corcuera, D. Nualart and M. Podolskij: Asymptotics of weighted random sums. To appear in *Commun. Appl. Ind. Math.* **6** (2014), no.1, e-486, 11 pp.
208. A. Deya, D. Nualart, S. Tindel: On L^2 modulus of continuity of Brownian local times and Riesz potentials. *Ann. Probab.* **43** (2015), no. 3, 1493-1534.
209. Y. Hu, J. Huang, D. Nualart and S. Tindel: Stochastic heat equations with general multiplicative Gaussian noises: Hölder continuity and intermittency. *Electron. J. Probab.* **20** (2015), no. 55, 50 pp.
210. Y. Hu, D. Nualart, S. Tindel and F. Xu: Density convergence in the Breuer-Major theorem for Gaussian stationary sequences. *Bernoulli* **21** (2015), no. 4, 2336-2350.
211. E. H. Essaky and D. Nualart: On the $1/H$ -variation of the divergence integral with respect to a fractional Brownian motion with Hurst parameter $H < 1/2$. *Stochastic Process. Appl.* **125** (2015), no. 11, 4117-4141.
212. D. Harnett and D. Nualart: On Simpson's rule and fractional Brownian motion with $H = 1/10$. *J. Theoret. Probab.* **28** (2015), no. 4, 1651-1688.
213. Y. Hu, J. Huang, D. Nualart and X. Sun: Smoothness of the joint density for spatially homogeneous SPDEs. *J. Math. Soc. Japan* **67** (2015), no. 4, 1605-1630.
214. I. Nourdin, D. Nualart and G. Peccati: Quantitative stable limit theorems on the Wiener space. *Ann. Probab.* **44** (2016), no. 1, 1-41.
215. I. Nourdin, D. Nualart and G. Peccati: Strong asymptotic independence on Wiener chaos. Submitted for publication. *Proc. Amer. Math. Soc* **144** (2016), no. 2, 875-886.
216. Y. Hu, J. Huang and D. Nualart: On the intermittency front of stochastic heat equation driven by colored noises. *Electron. Commun. Probab.* **21** (2016), Paper No. 21, 13 pp.
217. Y. Hu, Y. Liu and D. Nualart: Rate of convergence and asymptotic error distribution of Euler approximation schemes for fractional diffusions. *Ann. Appl. Probab.* **26** (2016), no. 2, 1147-1207.
218. I. Nourdin and D. Nualart: Fisher Information and the Fourth Moment Problem. *Ann. Inst. Henri Poincaré Probab. Stat.* **52** (2016), no. 2, 849-867.
219. Y. Hu, Y. Liu and D. Nualart: Taylor schemes for rough differential equations and fractional diffusions. *Discrete Contin. Dyn. Syst. Ser. B* **21** (2016), no. 9, 3115-3162.
220. I. Nourdin, D. Nualart and R. Zintout: Multivariate central limit theorems for averages of fractional Volterra processes and applications to parameter estimation. *Stat. Inference Stoch. Process.* **19** (2016), no. 2, 219-234.
221. A. Jaramillo and D. Nualart: Asymptotic properties of the derivative of self-intersection local time of fractional Brownian motion. *Stochastic Process. Appl.* **217** (2017), no. 2, 669-700.
222. D. Nualart and C. A. Tudor: The determinant of the iterated Malliavin matrix and the density of a pair of multiple integrals. *Ann. Probab.* **45** (2017), no. 1, 518-534.
223. J. Huang, K. Lê and D. Nualart: Large time asymptotics for the parabolic Anderson model driven by spatially correlated noise. *Ann. Inst. Henri Poincaré Probab. Stat.* **53** (2017), no. 3, 1305-1340.

224. L. Chen, Y. Hu and D. Nualart: Two-point correlation function and Feynman-Kac formula for the stochastic heat equation. *Potential Anal.* **45** (2017), no. 4, 779–797.
225. J. A. León, D. Nualart and S. Tindel: Young differential equations with power type nonlinearities. *Stochastic Process. Appl.* **127** (2017), no. 9, 3042–3067.
226. D. Bell and D. Nualart: Noncentral limit theorem for the generalized Hermite process. *Electron. Commun. Probab.* **22** (2017), Paper No. 66, 13 pp.
227. Y. Hu, J. Huang, K. Lê, D. Nualart and S. Tindel: Stochastic heat equation with rough dependence in space. *Ann. Probab.* **45** (2017), no. 6B, 4561–4616.
228. J. Huang, K. Lê and D. Nualart: Large time asymptotics for the parabolic Anderson model driven by space and time correlated noise. *Stoch. Partial Differ. Equ. Anal. Comput.* **5** (2017), no. 4, 614–651.
229. X. Chen, Y. Hu, D. Nualart and S. Tindel: Spatial asymptotics for the parabolic Anderson model driven by a Gaussian rough noise. *Electron. J. Probab.* **22** (2017), Paper No. 65, 38 pp.
230. D. Harnett and D. Nualart: Central limit theorem for functionals of a generalized self-similar process. *Stochastic Process. Appl.* **128** (2018), no. 2, 404–425.
231. Y. Hu, D. Nualart and T. Zhang: Large deviations for stochastic heat equation with rough dependence in space. *Bernoulli* **24** (2018), no. 1, 354–385.
232. G. Binotto, I. Nourdin and D. Nualart: Weak symmetric integrals with respect to the fractional Brownian motion. *Ann. Probab.* **46** (2018), no. 4, 2243–2267.
233. L. Chen, Y. Hu, K. Kalbasi and D. Nualart: Intermittency for the stochastic heat equation driven by a rough time fractional noise. *Probab. Theory Related Fields* **171** (2018), no. 1-2, 431–457.
234. P. Lewis and D. Nualart: Stochastic Burgers’ equation on the real line: Regularity and moment estimates. *Stochastics* **90** (2018), no. 7, 1053–1086.
235. D. Nualart and R. Zeineddine: Symmetric weighted odd-power variations of fractional Brownian motion and applications. *Commun. Stoch. Anal.* **12** (2018), no. 1, Art. 4, 37–58.
236. Y. Hu, D. Nualart and H. Zhou: Parameter estimation for fractional Ornstein-Uhlenbeck processes of general Hurst parameter. *Stat. Inference Stoch. Process.* **22** (2019), no. 1, 111–152.
237. A. Jaramillo and D. Nualart: Functional limit theorem for the self-intersection local time of the fractional Brownian motion. *Ann. Inst. Henri Poincaré Probab. Stat.* **55** (2019), no. 1, 481–528.
238. D. Nualart and F. Xu: Asymptotic behavior for an additive functional of two independent self-similar Gaussian processes. *Stochastic Process. Appl.* **129** (2019), no. 10, 3981–4008.
239. D. Harnett, A. Jaramillo and D. Nualart: Symmetric stochastic integrals with respect to a class of self-similar processes. *J. Theoret. Probab.* **32** (2019), no. 3, 1105–1144.
240. Y. Hu, D. Nualart and H. Zhou: Drift parameter estimation for nonlinear stochastic differential equations driven by fractional Brownian motion. *Stochastics* **91** (2019), no. 8, 1067–109.

241. L. Chen, Y. Hu and D. Nualart: Nonlinear stochastic time-fractional slow and fast diffusion equations on \mathbb{R}^d . *Stochastic Process. Appl.* **129** (2019), no. 12, 5073–5112.
242. S. Kuzgun and D. Nualart: Rate of convergence in the Breuer-Major theorem via chaos expansions. *Stoch. Anal. Appl.* **37** (2019), no. 6, 1057–1091.
243. Y. Hu, D. Nualart, X. Sun and Y. Xie: Smoothness of density for stochastic differential equations with Markovian switching. *Discrete Contin. Dyn. Sys. Ser. B* **24** (2019), no. 8, 3615–3631.
244. Y. Hu, D. Nualart and P. Xia: Hölder continuity of the solutions to a class of SPDEs arising from branching particle systems in random environment. *Electron. J. Probab.* **24** (2019), Paper No. 105, 52 pp.
245. D. Nualart and N. Yoshida: Asymptotic expansion of Skorohod integrals. *Electron. J. Probab.* **24** (2019), Paper No. 119, 64 pp.
246. I. Nourdin and D. Nualart: The functional Breuer-Major theorem. *Probab. Theory Related Fields* **176** (2020), no. 1-2, 203–218.
247. S. Campese, I. Nourdin and D. Nualart: Continuous Breuer-Major theorem: tightness and non-stationarity. *Ann. Probab.* **48** (2020), no. 1, 147–177.
248. Y. Hu, D. Nualart and X. Song: An implicit numerical scheme for a class of backward double stochastic differential equations. *Stochastic Process. Appl.* **130** (2020), no. 6, 3295–3324.
249. D. Nualart and G. Zheng: Averaging Gaussian functionals. *Electron. J. Probab.* **25** (2020), Paper No. 48, 54 pp.
250. N. Ma, D. Nualart and P. Xia: Intermittency for the parabolic Anderson model of Skorohod type driven by a rough noise. *Electron. Commun. Probab.* **25** (2020), Paper No. 48, 10 pp.
251. A. Jaramillo and D. Nualart: Collision of eigenvalues for matrix-valued processes. *Random Matrices Theory Appl.* **9** (2020), no. 4, 2030001, 26 pp.
252. D. Nualart and G. Zheng: Oscillatory Breuer-Major theorem with application to the random corrector problem. *Asymptotic Analysis* **119** (2020), no. 3-4, 281–300.
253. J. Huang, D. Nualart, L. Viitasaari and G. Zheng: Gaussian fluctuations for the stochastic heat equation with colored noise. *Stoch. Partial Differ. Equ. Anal. Comput.* **8** (2020) 402-421.
254. D. Nualart and A. Tilva: Continuous Breuer-Major theorem for vector valued fields. *Stoch. Anal. Appl.* **38** (2020), no. 4, 668–685.
255. F. Delgado-Vences, D. Nualart and G. Zheng: A Central Limit Theorem for the stochastic wave equation with fractional noise. *Ann. Inst. Henri Poincaré Probab. Stat.* **56** (2020), no. 4, 3020–3042.
256. J. Huang, D. Nualart and L. Viitasaari: A central limit theorem for the stochastic heat equation. *Stochastic Process. Appl.* **130** (2020), no. 12, 7170-7184.
257. N. Ma and D. Nualart: Rate of convergence of the weighted Hermite variations of the fractional Brownian motion. *J. Theoret. Probab.* **25** (2020), Paper No. 48, 10 pp.

258. D. Nualart and P. Xia: On nonlinear rough paths. *ALEA, Lat. Am. J. Probab. Math. Stat.* **17** (2020), no. 1, 545–586.
259. D. Nualart and G. Zheng: Spatial ergodicity of stochastic wave equation in dimensions 1, 2 and 3. *Electron. Commun. Probab.* **25** (2020), Paper No. 80, 11 pp.
260. D. Bell, R. Bolaños and D. Nualart: Limit theorems for singular Skorohod integrals. *Theor. Probability and Math. Statist.* **102** (2020), 21–44.
261. L. Chen, D. Khoshnevisan, D. Nualart and F. Pu: Central limit theorems for spatial averages of the stochastic heat equation via Malliavin-Stein’s method. *Stoch. Partial Differ. Equ. Anal. Comput.* (2020).
262. I. Nourdin, D. Nualart and G. Peccati: The Breuer-Major theorem in total variation: improved rates of convergence under minimal regularity. *Stochastic Process. Appl.* **131** (2021), 1–20.
263. Y. Hu, Y. Liu and D. Nualart: Crank-Nicolson scheme for stochastic differential equations driven by fractional Brownian motions. *Ann. Appl. Probab.* **31** (2021), no. 1, 39–83.
264. D. Nualart and H. Zhou: Total variation estimates in the Breuer-Major theorem. *Ann. Inst. Henri Poincaré Probab. Stat.* **57** (2021), no. 2, 740–777.
265. D. Nualart, X. Song and G. Zheng: Spatial averages for the Parabolic Anderson model driven by rough noise. *ALEA, Lat. Am. J. Probab. Math. Stat.* **18** (2021) 907–943.
266. D. Khoshnevisan, D. Nualart and F. Pu: Spatial stationarity, ergodicity and CLT for the parabolic Anderson model with delta initial condition in dimension $d \geq 1$. *SIAM J. Math. Anal.* **53** (2021), no. 2, 2084–2133.
267. V. Garino, I. Nourdin, D. Nualart and M. Salamat: Limit theorems for integral functionals of Hermite-driven processes. *Bernoulli* **27** (2021), no. 3, 1764–1788.
268. L. Chen, D. Khoshnevisan, D. Nualart and F. Pu: A CLT for dependent random variables with an application to an infinite system of interacting diffusion processes. *Proc. Amer. Math. Soc.* **140** (2021), no. 2, 5367–5384.
269. L. Chen, D. Khoshnevisan, D. Nualart and F. Pu: Spatial ergodicity for SPDEs via Poincaré-type inequalities. *Electron. J. Probab.* **26** (2021), Paper No. 140, 37 pp.
270. R. Bolaños, D. Nualart and G. Zheng: Averaging 2d stochastic wave equation. *Electron. J. Probab.* **26** (2021), Paper No. 102, 32 pp.
271. A. Kohatsu-Higa and D. Nualart: Large time asymptotic properties of the stochastic heat equation. *J. Theoret. Probab.* **34** (2021), no. 3, 1455–1473.
272. L. Chen, D. Khoshnevisan, D. Nualart and F. Pu: Spatial ergodicity and central limit theorems for parabolic Anderson model with delta initial condition. *J. Funct. Anal.* **282** (2022), no. 2, 109290.
273. L. Chen, D. Khoshnevisan, D. Nualart and F. Pu: Poincaré inequality, and central limit theorems for parabolic stochastic partial differential equations. *Ann. Inst. Henri Poincaré Probab. Stat.* **58** (2022), no. 2, 1052–1077.

274. O. Assaad, D. Nualart, C. A. Tudor and L. Viitasaari: Quantitative normal approximations for the stochastic fractional heat equation. *Stoch. Partial Differ. Equ. Anal. Comput.* **10** (2022) 223–254.
275. S. Kuzgun and D. Nualart: Convergence of densities of spatial averages of stochastic heat equation. *Stochastic Process. Appl.* **151** (2022) 68–100.
276. D. Nualart and G. Zheng: Central limit theorems for stochastic wave equations in dimensions one and two. *Stoch. Partial Differ. Equ. Anal. Comput.* **10** (2022) 392–418.
277. D. Nualart and E. Sönmez: Regularization of differential equations by two fractional noises. *Stoch. Dyn.* **22**, no. 6, 2250029 (2022)
278. S. Kuzgun and D. Nualart: Feynman-Kac formula for iterated derivatives of the parabolic Anderson model. *Potential Anal.* (2022).
279. R. M. Balan, D. Nualart, L. Quer-Sardanyons and G. Zheng: The hyperbolic Anderson model: Moment estimates of the Malliavin derivatives and applications. *Stoch. Partial Differ. Equ. Anal. Comput.* **10** (2022), 757–827.
280. D. Nualart, P. Xia and G. Zheng: Quantitative central limit theorems for the parabolic Anderson model driven by colored noises. *Electron. J. Probab.* **27** (2022), article no. 120, 1–43.
281. A. Jaramillo, I. Nourdin, D. Nualart and G. Peccati: Limit theorems for additive functionals of the fractional Brownian motion. *Ann. Probab.* To appear.
282. D. Nualart and B. Saikia: Error distribution of the Euler approximation scheme for stochastic Volterra equations. *J. Theoret. Probab.* To appear.
283. S. Kuzgun and D. Nualart: Convergence of densities of spatial averages of the parabolic Anderson model driven by colored noise. Preprint.
284. D. Nualart and B. Saikia: Gaussian fluctuations for spatial averages of a system of stochastic heat equations. Preprint.

PUBLICATIONS (BOOKS / NOTES)

1. R. Carmona, D. Nualart: *Nonlinear stochastic integrators equations and flows*. Gordon and Breach Science Publishers Ltd. 1990. 136 pages
2. D. Nualart: *Malliavin calculus and related topics*. In: Mathematical Research, Vol. 61, Akademie-Verlag, Berlin, 103–128 (1991).
3. D. Nualart: *Markov fields and transformations of the Wiener measure*. In: Stochastic analysis and related topics. Proc. Fourth Oslo-Silivri Workshop on Stochastic Analysis, Oslo, July 1992. Eds.: T. Lindstrom, B. Oksendal, A. S. Üstünel. Stochastics Monographs, 8, Gordon–Breach, pp. 45–88, 1993.
4. D. Nualart: *The Malliavin Calculus and Related Topics*. Springer-Verlag, 2006. 383 pages. 2nd edition.

5. D. Nualart: *Analysis on Wiener space and anticipating stochastic calculus*. In: Lectures on Probability Theory and Statistics, Ecole d'Été de Probabilités de Saint Flour. *Lecture Notes in Math.* **1690**, 123–227.
6. D. Nualart: *Application of Malliavin Calculus to Stochastic Partial Differential Equations*. In: A Minicourse on Stochastic Partial Differential Equations. *Lecture Notes in Math.* **1962**, 73–209 (2009).
7. D. Nualart: *Malliavin Calculus and its Applications*. AMS, CBMS Conference Series.
8. D. Nualart and E. Nualart: *Introduction to Malliavin Calculus*. Cambridge University Press, 2018.
9. L. Chen, Y. Hu and D. Nualart: *Regularity and strict positivity of densities for the nonlinear stochastic heat equation*. *Memoirs of the American Mathematical Society* Volume 273, Number 1340, 2021.

PUBLICATIONS (proceedings and other publications)

1. D. Nualart: Métricas definidas en la σ -álgebra de un espacio de probabilidad. *Actas de la XI R.A.M.E.*, Murcia (1971) 189–195.
2. D. Nualart: Sobre la convergencia de las martingalas. *Actas de las Primeras Jornadas Matemáticas Hispano-Lusitanas*, Madrid (1973) 638–646.
3. D. Nualart: Sobre la convergencia en orden de los procesos estocásticos. *Actas de las Primeras Jornadas Hispano-Lusitanas*, Madrid (1973) 647–655.
4. E. Bonet, D. Nualart: Interpolation and forecasting in Brownian functions of two parameters. *Stochastica* **1**, **1** (1975) 67–70.
5. D. Nualart: Contribución al estudio de la integral estocástica. *Stochastica* **1**, **2** (1976) 21–34.
6. D. Nualart, M. Sanz: Intégrales stochastiques par rapport au processus de Wiener à deux paramètres. *Ann. Sci. Univ. Clermont* **61** (1977) 89–99.
7. E. Bonet, D. Nualart: Interpolation and forecasting in Poisson processes. *Stochastica* **2**, **3** (1977) 36–40.
8. D. Nualart, M. Sanz: Fórmula de diferenciación de Itô para funciones brownianas de n parámetros. *Actas de las IV Jornadas Matemáticas Hispano-Lusitanas de Jaca 1977*, Zaragoza (1980) 689–696.
9. D. Nualart: Decomposition of independent valued stochastic measures. Libro homenaje al Prof. Dr. D. Alfonso Guiraúm: *Contribuciones en Probabilidad y Estadística Matemática, Enseñanza de la Matemática y Análisis*, Granada (1979) 83–90.
10. D. Nualart, M. Sanz: A Markov property for two-parameter Gaussian processes. *Stochastica* **3**, **1** (1979) 1–16.
11. D. Nualart: Integració estocástica. *Pub. Mat. UAB* **11** (1979) 53–68.
12. D. Nualart, M. Sanz: Caractérisation des martingales à deux paramètres indépendantes du chemin. *Ann. Sci. Univ. Clermont* **67** (1979) 96–104.

13. J. Aguilar, D. Nualart: Generalized wide sense Markov processes and quadratic dynamical discrete systems. *Advances in Control*, ed. by D.G. Lainiotis and N.S. Tzannes, D. Reidel Publishing Company, (1980) 411–423.
14. D. Nualart: Propiedad de Markov para funciones aleatorias gaussianas. *Cuadernos Est. Mat. Univ. Granada*, Serie A Prob., **5** (1980) 30–43.
15. D. Nualart, M. Sanz: Martingales à variation indépendante du chemin dans une filtration produit. *Pub. Mat. UAB* **17** (1980) 47–56.
16. D. Nualart: Decomposition of two-parameter martingales. *Stochastica* **5, 3** (1981) 133–150.
17. D. Nualart, M. Sanz: Malliavin calculus for two-parameter processes. *Ann. Sci. Univ. Clermont-Ferrand II* **85** (1985), 73–86.
18. D. Nualart: Aplicació del càlcul de Malliavin a certs funcionals del brownià amb dos paràmetres. Llibre homenatge a Sales (Pub. Univ. Barc.) (1985) 105–117.
19. D. Nualart, E. Pardoux: Stochastic calculus associated with Skokrohod’s integral. *Lecture Notes in Control and Information Sciences* **96** (1987) 363–372.
20. D. Nualart: Les martingales i les seves aplicacions des d’una perspectiva històrica. *Butlletí Soc. Cat. Mat.* **4** (1989) 33–46.
21. A. Millet, D. Nualart, M. Sanz: Composition of large deviation principles and applications. *Stochastic Analysis: Liber Amicorum for Moshe Zakai* 383–396, Academic Press 1991.
22. D. Nualart: Nonlinear transformations of the Wiener measure and applications. *Stochastic Analysis: Liber Amicorum for Moshe Zakai*, 397–432, Academic Press 1991.
23. A. Millet, D. Nualart, M. Sanz: Small perturbations for quasilinear anticipating stochastic differential equations. *International Series of Numerical Mathematics* **402** (1991) 149–157, Birkhäuser.
24. A. Alabert, D. Nualart: Some remarks on the conditional independence and the Markov property. In: *Stochastic Analysis and Related Topics, Progress in Probability* 31, Birkhäuser (1992) 343–364.
25. D. Nualart: Caracterización geométrica de la independencia en un espacio gaussiano. *Rev. R. Acad. Cienc. Exactas Fis. Nat.* **86** (1992) 237–250.
26. D. Nualart, E. Pardoux: Stochastic differential equations with boundary conditions. In: *Stochastic Analysis and Applications, Progress in Probability* 26, Birkhäuser (1992) 155–175.
27. N. Frangos, D. Nualart, M. Sanz: On the Itô formula for two-parameter martingales. In: *Stochastic Partial Differential Equations and Their Applications, Lecture Notes in Control and Inf. Sciences* **176** (1992) 92–100.
28. D. Nualart, M. Zakai: Positive and strongly positive Wiener functionals. In: *Barcelona Seminar on Stochastic Analysis, Progress in Probability*, 32, Birkhäuser (1993) 132–146.
29. D. Nualart, J. Vives: Smoothness of local time and related Wiener functionals. *Probability and Stochastic Series, Chaos Expansions, Multiple Wiener-Itô Integrals and their Applications*, Ed. by Ch. Houdré and V. Pérez-Abreu, CRC Press, pp. 317–335, 1994.

30. D. Nualart, J. Vives: A duality formula on the Poisson space and some applications. In: Proceedings of the Ascona conference on Stochastic Analysis. Progress in Probability 36, 205–213, Birkhäuser, 1995.
31. D. Nualart: Markov properties for solutions of stochastic differential equations. *Proceedings of Symposia in Pure Mathematics* **57** (1995) 456–471.
32. D. Nualart, M. Thieullen: Anticipative stochastic differential equations driven by a multidimensional Brownian motion. *Israel Mathematical Conference Proceedings* 10 (1996) 169–181.
33. M. E. Caballero, B. Fernández, D. Nualart: Composition of skeletons and support theorems, In: Stochastic Differential and Difference Equations, I. Csiszàr and Gy. Michaletzky (eds.) *Progress in Systems and Control Theory*, Birkhäuser (1997), pp. 21–33.
34. E. Alòs, D. Nualart: A maximal inequality for the Skorohod integral, In: Stochastic Differential and Difference Equations, I. Csiszàr and Gy. Michaletzky (eds.) *Progress in Systems and Control Theory*, Birkhäuser, (1997), pp. 241-251.
35. D. Nualart, C. Rovira and S. Tindel: Probabilistic models for vortex filaments based on fractional Brownian motion. *RACSAM Rev. R. Acad. Cienc. Exactas Fis Nat. Ser. A. Mat.* **95** (2001) 213–218.
36. D. Nualart and Y. Ouknine: Stochastic differential equations with additive fractional noise and locally unbounded drift. In: Stochastic Inequalities. Proceedings. Eds: E. Giné, C. Houdré and D. Nualart. Birkhäuser, (2003), 353-365.
37. D. Nualart: Stochastic calculus with respect to the fractional Brownian motion and applications. In: Stochastic models (Mexico City, 2002). *Contemp. Math.* **336** (2003), pp. 3–39.
38. D. Nualart and P. Vuillermot: A stabilization phenomenon for a class of stochastic partial differential equations, in “Stochastic Partial Differential Equations and Applications - VII”, G. Da Prato & L. Tubaro eds., Chapman and Hall/CRC vol. 245, 2005, pp. 215-227.
39. D. Nualart and P. Vuillermot: Variational solutions for a class of fractional stochastic partial differential equations. *Comptes Rendus de l’Académie des Sciences de Paris* **340** (2005) 281–286.
40. D. Nualart: A White noise approach to fractional Brownian motion, in “Stochastic Analysis: Classical and Quantum, Perspectives of White Noise Theory”, T. Hida Ed., World Scientific 2005, 112-126.
41. J. M. Corcuera, D. Nualart and W. Schoutens: Moment derivatives and Lévy-type market completion, in “Exotic Option Pricing and Advanced Lévy Models”, Wim Schoutens, Andreas Kyprianou and Paul Wilmott eds., Wiley 2005.
42. D. Nualart: Fractional Brownian motion: stochastic calculus and applications. Proceedings of the International Congress of Mathematicians, Madrid, Spain, 2006, 1541-1562.
43. L. Decreusefond and D. Nualart: Flow properties of differential equations driven by fractional Brownian motion. In: *Stochastic Differential Equations – Theory and Applications*, 249–262, eds: Peter Baxendale and Sergey Lototsky. Interdiscip. Math.Sci., 2, World Sci. Publ., Hackensack, NJ, 2007.

44. Y. Hu and D. Nualart: Differential equations driven by Hölder continuous functions of order greater than $1/2$. In: *Stochastic Analysis and Applications*, 399–413, Abel Symp., 2, Springer, Berlin, 2007.
45. D. Nualart and S. Ortiz-Latorre: Multidimensional Wick-Itô formula for Gaussian processes. In: *Stochastic Analysis, Stochastic Systems and Applications to Finance*. Ed: A. Tsoi, D. Nualart and G. Yin, World Scientific 2011, 3-26.
46. D. Harnett and D. Nualart: Decomposition and limit theorems for a class of self-similar Gaussian processes. In: *Stochastic Analysis and Related Topics*, F. Baudoin and J. Peterson eds., Progress in Probability 72, Birkäuser 2017, pp. 99-116.
47. Y. Hu, J. Huang, K. Le, D. Nualart and S. Tindel: Parabolic Anderson model with rough dependence on space. In: *Computation and Combinatorics in Dynamics, Stochastics and Control. Abelsymposium 2016*, Celledoni E., Di Nunno G., Ebrahimi-Fard K., Munthe-Kaas H. eds., Springer 2018, 477-498.
48. D. Nualart: Malliavin calculus and normal approximations. *Ensaïos Matemàtics* **34** 2019, 1-74.

PUBLICATIONS (EDITOR)

1. *Stochastic Processes and Related Topics*. Eds: M. Dozzi, H.J. Engelbert, D. Nualart. Akademie-Verlag, Berlin, 1991.
2. *Barcelona Seminar on Stochastic Analysis*. Eds: D. Nualart and M. Sanz. Progress in Probability, Birkhäuser, 1993.
3. *Stochastic Inequalities and Applications*. Eds: E. Giné, C. Houdré and D. Nualart. Progress in Probability, Birkhäuser, 2003.

INVITED LECTURES

1. *Colloque ENST-CNET sur les processus à deux indices*, Paris, France, June 30 to July 1, 1980. Title: “Martingales à variation indépendante du chemin”
2. *Journées SMF de Probabilités*, Orsay, France, 1982. Title: “Martingales à accroissements orthogonaux”
3. *Une journée d’étude sur les processus à deux indices*, Paris, France, 1982. Title: “Continuité de la variation quadratique d’une martingale continue de carré intégrable”
4. *First Catalan International Symposium on Statistics*, Barcelona, Spain, Sept. 23-24, 1983. Title: “Stochastic analysis of processes with two parameters”
5. *XIV Congreso Nacional de Estadística, I.O. e Informática*, Granada, Spain, April 9-14, 1984. Title: “Fórmulas de diferenciación estocástica para procesos con varios parámetros”
6. *Journées SMF de Probabilités*, Marseille (Luminy), France, Dec. 10-12, 1984. Title: “Calcul de Malliavin pour les processus à deux indices”

7. *Probabilidad y espacios de Banach*, Zaragoza, Spain, 1985. Title: “Malliavin calculus and stochastic integrals”
8. *Séminaire de Probabilités XXII*, Toulouse, France, March 16-20, 1987. Title: “Retournement du temps pour les diffusions”
9. *Journées de Calcul Stochastique*, Angers, France, June 9-10, 1987. Title: “Calcul de Malliavin partiel”
10. *Stochastic Partial Differential Equations and Applications II*, Trento, Italy, Feb. 1-6, 1988. Title: “Generalized Brownian functionals and stochastic partial differential equations”
11. *The 17th Conference on Stochastic Processes and Their Applications*, Roma, Italy, June 27 to July 1, 1988. Title: “Anticipative stochastic calculus”
12. *Second Silivri Workshop on Stochastic Analysis*, Silivri, Turkey, July 18-29, 1988. Title: “Continuity of multiple stochastic integrals”
13. *VII Winter School on Statistics and Probability*, Santiago de Chile, Sept. 12-16, 1988. Titles: “Cálculo estocástico anticipativo”, “Estudio de algunas ecuaciones diferenciales estocásticas anticipativas”
14. *Séminaire de Probabilités XXIII*, Barcelona, Spain, Sept. 26-30, 1988. Title: “Sur une équation différentielle stochastique avec conditions au bord”
15. *Stochastische Analysis*, Oberwolfach, Germany, Oct. 23-29, 1988. Title: “Characterization of the conditional independence on the Wiener space”
16. *Workshop on Stochastic Analysis and Applications*, Lisboa, Portugal, Sept. 4-8, 1989. Title: “Stochastic differential equations with boundary conditions”
17. *Journées de Probabilités*, Luminy, France, Sept. 11-26, 1989. Title: “Calcul stochastique anticipatif”
18. *Random Partial Differential Equations*, Oberwolfach, Germany, Nov. 19-25, 1989. Title: “Stochastic parabolic equations with reflection”
19. *Stochastic Partial Differential Equations and Applications III*, Trento, Italia, Jan. 7-12, 1990. Title: “Stochastic partial differential equations with reflection”
20. *Seminar on Stochastic Processes*, Vancouver, Canada, May 10-12, 1990. Title: “Stochastic differential equations with boundary condition”
21. *Semester on Probability Theory: Stochastic Analysis*, Warsaw, Poland, June 15-30, 1990. Titles: “Approximation of local time of continuous martingales”, “Anticipating stochastic calculus”
22. *Workshop on Stochastic Analysis*, Silivri, Turkey, July 24 to Aug. 4, 1990. Title: “Large deviations for multiple stochastic integrals”
23. *Conference on Stochastic Partial Differential Equations*. Charlotte, USA, May 3-8, 1991. Title: “Markov properties for parabolic stochastic partial differential equations”
24. *Conference in Honor of Moshe Zakai*, Haifa, Israel, June 2-3, 1991. Title: “Nonlinear transformations of the Wiener measure and applications”

25. *19th European Meeting of Statisticians*, Barcelona, Spain, Sept. 2-7, 1991. Title: “Anticipating stochastic calculus and its applications”
26. *Third European Symposium: Analysis and Probability*, Paris, France, Jan. 6-10, 1992. Title: “Markov properties for SPDEs”
27. *Workshop on Stochastic Analysis and Geometry*, Bonn, Germany, April 6-10, 1992. Title: “Traces on the Wiener space and applications”
28. *SPDE Conference*, Marseille, France, April 13-17, 1992. Title: “Linear anticipating stochastic differential equations”
29. *Joint Statistical Meeting ASA, BS, IMS*, Boston, USA, August 9-13, 1992. Title: “Markov properties for stochastic (partial) differential equations”
30. *Primer Congreso Iberoamericano de Estadística e I.O.*, Cáceres, Spain, Sept. 29 to Oct. 2, 1992. Title: “Propiedad de Markov para ecuaciones diferenciales estocásticas con condiciones frontera”
31. *Seminar on Stochastic Analysis, Random Fields and Applications*, Monte Verità, Ascona, Switzerland, June 7-12, 1993. Title: “Parabolic differential equations with random boundary conditions”
32. *AMS Summer Institute on Stochastic Analysis*, Cornell, USA, July 1993. Title: “Markov property for solutions of stochastic differential equations”
33. *Fourth European Symposium on Stochastic Analysis*, Lisboa, Portugal, Aug. 30 to Sept. 4, 1993. Title: “Local time and Skorohod integral”
34. *Brownian sheet symposium*, Bar-Ilan University, Israel, Sept. 6-8, 1993. Title: “Local criterion for smoothness of probability laws and applications”
35. *Journées de Probabilités*, Toulouse, France, Sept. 13-18, 1993. Title: “Propriété de Markov pour les équations aux dérivées partielles stochastiques”
36. *Fourth Eugene Lukacs Symposium*, Bowling Green, USA, March 24-26, 1994. Title: “Elliptic stochastic partial differential equations”
37. *Workshop on Stochastic Analysis* Metz, France, April 6-8, 1994. Title: “Onsager-Machlup functional for SDE with boundary conditions”
38. *Fifth Workshop on Stochastic Analysis*. Silivri, Turkey, July 18-29, 1994. Title: “Markov property for random fields”
39. *Symposium on Stochastic Analysis*. Bonn, Germany, Oct. 4-8, 1994. Title: “Factorization of densities and conditional independence”
40. *Workshop on Stochastic Evolution Equations and Dynamical Systems*, Warwick, England, March 27-31, 1995. Title: “Implicit approximation for SPDEs”
41. *Calcul stochastique en dimension infinie*. Clermont-Ferrand, France, Sept. 12-15, 1995. Title: “Calcul stochastique des variations et support de la loi d’une fonctionnelle de Wiener”
42. *Probability Towards 2000*, New York, USA, Oct. 2-6, 1995. Title: “Anticipating stochastic calculus”

43. *London Mathematical Society. Meeting on Stochastic Analysis*, London, UK, Oct. 20-21, 1995. Title: “The Markov property and stochastic boundary value problems”
44. *First Winter Workshop/School on Stochastic Partial Differential Equations*, USC, Los Angeles, USA, Jan. 3-7, 1996. Title: “Linear SPDE’s driven by space-time white noise”
45. *Georgia Institute of Technology*, Atlanta, USA, 1996 (Jan. 8-9). Two invited talks on “An introduction to Malliavin Calculus and some of its applications”
46. *Conference on Stochastic Differential and Differentia Equations*, Györ, Hungary, Aug. 21-24, 1996. Title: “Anticipating stochastic differential equations”
47. *4th World Congress of the Bernoulli Society*, Wien, Austria, Aug. 26-31, 1996. Title: “Markov random fields and stochastic boundary value problems”
48. *Second Seminar on Stochastic Analysis, Random Fields and Applications*, Monte Verità, Ascona, Switzerland, Sept. 16-21, 1996. Title: “Stochastic evolution equations with random generators”
49. *18th Midwest Probability Colloquium*, Northwestern University, Evanston, USA, Oct. 18-19, 1996. Two invited talks on “Application of Malliavin calculus to the regularity and support of probability laws”
50. *Stochastic Analysis*, Oberwolfach, Germany, Oct. 27 to Nov. 2, 1996. Title: “Random evolution equations and anticipating stochastic integrals”
51. *Rencontre Barcelona-Marseille-Toulouse*, Amiane, France, Nov. 8-10, 1996. Title: “Calcul stochastique anticipatif et application aux edps”
52. *International Conference on Random Dynamical Systems*, Bremen, Germany, April 28 to May 2), 1997. Title: “Stochastic evolution equations”
53. *Second conference on Stochastic Analysis and Probabilities*, Marrakech, Marrocco, (April 28 to May 2, 1998. Title: “Evolution equation of a stochastic semigroup with white-noise drift”
54. *Primera Trobada Matemàtica*, Barcelona, Spain, March 27, 1998. Title: “Equació de Burgers perturbada per un soroll aleatori”
55. *Stochastic Analysis and its Applications*, Paris, France, May 25-30, 1998. Title: “Random evolution equations with stochastic semigroups”
56. *Stochastic processes and related problems*, Kyushu, Japan, Sept. 11-12, 1998. Title: “Quadratic covariation and Itô’s formula for smooth non-degenerate martingales”
57. *Mid Term Meeting of the TRM Contract on Stochastic Analysis*, Imperial College, London, UK, May 21-22, 1999. Title: “Stochastic Burgers equation”
58. *Stochastic analysis and mathematical physics*, Lisboa, Portugal, May 24-29, 1999. Title: “Stochastic Burgers equation”
59. *Equations différentielles stochastiques rétrogrades et applications*. Université du Maine, le Mans, France, June 3-4, 1999. Title: “Backward stochastic differential equations in the plane”

60. *The London Mathematical Society, EPSRC, and TMR meeting on Stochastic Analysis*. Durham, UK, (June 30 to July 7, 1999. Title: “Stochastic calculus with respect to the fractional Brownian motion”
61. *International Conference on Mathematical Analysis and its Applications*, Taiwan, Jan. 17-21, 2000. Title: “Stochastic calculus with respect to fractional Brownian motion”
62. *Lectures on probabilistic topics in 3D fluids*, Barcelona, Spain, July 3-7, 2000. Title: “Introduction to stochastic calculus for the fractional Brownian motion”
63. *Workshop on Fractional Brownian Motion*, Barcelona, Spain, 15-16 Feb., 2001. Title: “Vorticity models based on fractional Brownian motion”
64. *Backward and ordinary stochastic differential equations*, Rennes, France, April 23-24, 2001. Title: “Stochastic differential equations driven by fractional Brownian motion”
65. *Application of Lévy Processes in Financial Mathematics*, Eurandom, Eindhoven, Holland, June 22-23, 2001. Title: “Backward stochastic differential equations driven by Lévy processes”
66. *The Midnight Sun Workshop on Stochastic Analysis and Mathematical Finance*, Kautokeino, Norway, June 27 to July 2, 2001. Title: “Stochastic Calculus with respect to the Fractional Brownian Motion and Applications”
67. *Meeting on Stochastic Analysis*, Berlin, Germany, July 2-6, 2001. Title: “Stochastic Calculus with respect to the Fractional Brownian Motion and Applications”
68. *Symposium on Stochastic Partial Differential Equations and Related Topics*, Warwick, UK, July 16-27, 2001. Two invited talks on “Sde’s driven by fractional Brownian motions”, “Probabilistic models for vortex filaments based on fractional Brownian motion”
69. *International Conference on Stochastic Analysis and Applications*, Hammamet, Tunis, Oct. 22-27, 2001. Title: “Stochastic analysis with respect to the fractional Brownian motion and Applications”
70. *Application du Calcul de Malliavin en Finance*, Inria-Rocquencourt, France, Dec. 13-14, 2001. Title: “Application of Malliavin Calculus to the utility maximization of an insider”
71. *Stochastic Partial Differential Equations and Applications VI*, Levico-Terme, Italy, Jan. 6-12, 2002. Title: “Regularization effect of fractional noise on ordinary and partial differential equations”
72. *Lévy Processes - Theory and Applications*, Aarhus, Denmark, Jan. 21-25, 2002. Title: “Predictable representation for Lévy processes and applications”
73. *II Jornades de la Xarxa Temàtica ”Dinàmiques no lineals d’autoorganització espaciotemporal”*, Barcelona, Spain, Feb. 6-8, 2002. Title: “Efecto regularizador del ruido en ecuaciones en derivadas parciales”
74. *Fractional Brownian motion*, Warwick, UK, 2-3 May, 2003. Title: “Planar fractional Brownian motion”
75. *Exotic option pricing under advanced Lévy models*, Eurandom, Eindhoven, The Netherlands, 3-4 May, 2004. Title: “Lévy market models: Completion, hedging and portfolio optimization”

76. *International Conference on Stochastic Analysis, Classical and Quantum - Perspectives of White Noise Theory*, Nagoya, Japan, 1-5 Nov. 2004. Title: “Stochastic calculus: Recent developments via fractional calculus”
77. *Primer Congreso Conjunto de Matemáticas RSME-SCM-SEIO-SEMA*, Valencia, Spain, 31 Jan. to 4 Feb. 2005. Title: “Regularización de ecuaciones diferenciales ordinarias y en derivadas parciales mediante un ruido aleatorio”
78. *Fourth Symposium on Lévy Processes: Theory and Applications*, Manchester, UK, 10-14 Jan. 2005. Title: “Hedging and portfolio optimization in Lévy market models”
79. *Workshop on Stochastic Analysis*, Hankasalmi, Finland, 18-21 May 2005. Title: “Central limit theorem via chaos expansions and applications to fractional Brownian motion”
80. *2e Colloque Autosimilarité et Applications*, Toulouse, France, 20-24 June 2005. Title: “Stochastic calculus with respect to fractional Brownian motion”
81. *9th Vilnius Conference on Probability Theory and Mathematical Statistics*, Vilnius, Lithuania, June 25-30 2006. Title: “Stochastic calculus with respect to fractional Brownian motion and applications”
82. *ICM*, Madrid, Spain, August 22-30 2006. Title: “Fractional Brownian motion: Stochastic Calculus and Applications”
83. *1019th AMS Meeting*, Salt Lake City, Utah, October 7-8 2006. Title: “Stochastic heat equation driven by fractional noise”.
84. *Conference on SPDE's*, Cornell University, April 22-25, 2007. Title: “Stochastic heat equation and intersection local times”
85. *Stochastic Analysis and Related Fields*, Toulouse, France, June 20-21, 2007. “Stochastic heat equation and intersection local times”
86. *32nd Conference on Stochastic Processes and Their Applications*, University of Illinois at Urbana-Champaign, August 6-10, 2007. Title: “Central limit theorem for functionals of Gaussian processes and applications”
87. *Kansas-Missouri Winter School of Applied Probability*, Columbia, February 14-15, 2008. Title: “Bifractional Brownian motion”
88. *Stochastic Analysis and Applications from Mathematical Physics to Mathematical Finance*, Princeton University, June 13–15, 2008. Title: “Central limit theorems for functionals of Gaussian processes”.
89. *30th Midwest Probability Colloquium*, Thursday program, October 23, 2008. Two invited talks on “Fractional Brownian motion”.
90. *Differential equations driven by fractional Brownian motion as random dynamical systems: qualitative properties*, BIRS Focused Research Group, Banff, Canada, September 29 to October 4, 2008. Title: “Stochastic Analysis with respect to the fractional Brownian motion”.
91. *1044th AMS Meeting*, University of Alabama in Huntsville, Alabama, October 23–25, 2008. Title: “Self-intersection local time of the fractional Brownian motion”.

92. *Workshop on Infinitely Divisible Processes*, CIMAT Guanajuato, Mexico, March 16–20, 2009. Title: “Central Limit Theorem for multiple Skorohod Integrals”.
93. *International Conference on Non-autonomous and Stochastic Dynamical Systems, and Multidisciplinary Applications*, Sevilla, Spain, June 22–26, 2009. Title: “Stochastic differential equations driven by a fractional Brownian motion with Hurst parameter $H > 1/2$ ”.
94. *2009 Workshop on Stochastic Analysis at Purdue*, Purdue University, September 29- October 1, 2009. Title: “Central limit theorem for the modulus of continuity of the Brownian local time”.
95. *1053rd AMS Meeting, Florida Atlantic University*, Boca Raton, Florida, October 30- November 1, 2009. Title: “Stochastic differential equations driven by a fractional Brownian motion with any Hurst parameter”.
96. *Theory and Qualitative Behavior of Stochastic Dynamics*, SAMSI, February 8–10, 2010. Title: “Feynman-Kac formula for the heat equation driven by fractional noise”.
97. *Classical and Random Dynamics in Mathematical Physics*, University of Texas at Austin, March 31 - April 3, 2010. Title: “SPDEs: Regularity of the probability law of the solution” .
98. *Workshop “Rough Path in Interaction”*, Institute Henri Poincaré, Paris, France, June 11, 2010. Title: “Rough paths above the fractional Brownian Motion using Volterra’s representation”.
99. *Workshop on Stochastic Analysis and Related Fields*, Telecom, Paris, France, June 14–15, 2010. Title: “Clark-Ocone formula and Central Limit Theorems for Brownian Local Time”.
100. *Groupe de Travail Aspects Fractals*, University of Paris 6, Paris, France, June 16, 2010. Title: “Central limit theorem for multiple Skorohod integrals”.
101. *Stochastic Analysis & Stochastic Partial Differential Equations*, BIRS, Banff, Canada, April 1-6, 2012. Title: “Hölder continuity for the solutions to a class of nonlinear SPDEs”.
102. *Long Range Dependence, Self-Similarity and Heavy Tails*, Research Triangle Park, North Carolina, April 19-21, 2012. Title: “Variational properties of fractional martingales and related processes”.
103. *Stan Days*, University of Lorraine, Nancy, France, May 9-11, 2012. Title: “Central limit theorem for additive functionals of the fractional Brownian motion”.
104. *Stochastic Analysis and Applications*, EPFL, Lausanne, Switzerland, June 4-8, 2012. Title: “Feynman-Kac formula for the heat equation driven by fractional noise”.
105. *8th Purdue Symposium on Statistics*, Purdue University, July 21-24, 2012. Title: “Weak symmetric integrals and change-of-variable formulas for Gaussian processes”.
106. *6th European Congress of Mathematics*, Kraków, Poland, July 2–7, 2012. Title: “Stochastic calculus with respect to the fractional Brownian motion”.
107. *36th Conference on Stochastic Processes and their Applications*, July 29 to August 2, 2013, Boulder, Colorado. Organizer of an invited session on “Stochastic Analysis”. Invited talk on “Central limit theorem for functionals of two independent fractional Brownian motions”.

108. *NSF/CBMS Conference: Analysis of Stochastic Partial Differential Equations*, East Lansing, Michigan, August 19–23, 2013. Title: “Hölder continuity of the solution to the 3-dimensional stochastic wave equation”.
109. *Stochastic Analysis and Applications Conference*, Oxford, United Kingdom, September 23–27, 2013. Title: “Convergence of densities for random variables on a finite Wiener chaos”.
110. *Workshop: Statistics, Jump Processes and Malliavin Calculus: Recent Applications*, Barcelona, Spain, June 25-26, 2014. Title: “Convergence of densities for random variables on a finite Wiener chaos”.
111. *10 AIMS Conference on Dynamical Systems*, Madrid, Spain, July 07-11, 2014. Two invited talks on “Numerical approximation schemes for fractional diffusions” and “Stochastic heat equation with multiplicative colored noise”.
112. *37th Conference on Stochastic Processes and Their applications*, Buenos Aires, Argentina, July 28 to August 1, 2014. Medallion lecture on “Malliavin calculus and normal approximation”.
113. *AMS Spring Eastern Sectional Meeting*, Georgetown University, Washington DC, March 7–8, 2015. Title: “Stochastic heat equation with rough multiplicative noise”
114. *AMS Spring Western Sectional Meeting*, University of Nevada, Las Vegas, April 19, 2015. Title: “Quantitative stable limit theorems for multiple Skorohod integrals”
115. *Workshop on Markov Processes and Related Topics*, Shanghai, China, June 27, 2015. Title: “Numerical approximation schemes for fractional diffusions”
116. *IMS China Conference, Yunnan University*, Kunming, China, July 1-4, 2015. Title: “Stochastic heat equation with rough multiplicative noise”
117. *Conference in honor of Professor Vlad Bally: Stochastic Calculus, Monte Carlo Methods and Mathematical Finance*, University of Le Mans, October 6-9, 2015. Title: “Stochastic heat equation with rough multiplicative noise”
118. *Workshop on deterministic and stochastic partial differential equations*, Brown University, November 6-8, 2015. Title: “Parabolic Anderson model driven by colored noise”
119. *2015 CMS Winter Meeting, Montréal, Canada*, December 4-7, 2015]. Title: “Parabolic Anderson model driven by colored noise”
120. *AMS Sectional Meeting*, University of Utah, April 9-10, 2016. Title: “Stochastic heat equation driven by a rough time-fractional noise”
121. *Swiss Probability Seminar 2016*, Zürich, Switzerland, June 6-7, 2016. Title: “Stochastic heat equation with rough multiplicative noise”
122. *Conference on probability and statistics in high dimensions. A scientific tribute to Evarist Giné*, CRM, Barcelona, Spain, June 20-22, 2016. Title: “Approximation schemes for stochastic differential equations driven by a fractional Brownian motion”
123. *World Congress on Probability and Statistics*, Toronto, Canada, July 11-15, 2016. Title: “Central limit theorem for symmetric integrals”

124. *Workshop on Stochastic Analysis and Statistics 2*, University of Tokyo, Japan, August 6, 2016. Titles: “Approximation schemes for stochastic differential equations driven by a fractional Brownian motion” and “Parameter estimation for fractional Ornstein-Uhlenbeck processes”
125. *Stochastic Partial Differential Equations and Related Fields. International Conference in Honor of Michael Röckner’s 60th Birthday*, University of Bielefeld, Germany, October 10-14, 2016. Title: “Stochastic heat equation with rough multiplicative noise”
126. *Seminar on Stochastic Processes 2017*, University of Virginia, March 8-11, 2017. **Kai Lai Chung Lecture**, with title: “Malliavin calculus and central limit theorems”
127. *Durham Symposium on Stochastic Analysis*, Durham University, July 10-20, 2017. Title: “Stochastic heat equation driven by a rough time-fractional noise”
128. *Barcelona GSE Summer Forum. Workshop on Fractional Brownian Motion and Rough Models*, Barcelona, Spain, June 8-9, 2017. Title: “Functional Central Limit Theorem for the Self-intersection Local Time of the Fractional Brownian Motion”
129. *SIU Prob-Stat Conference, Salah Mohammed Memorial Conference*, Southern Illinois University, May 14-15, 2018. Title: “Central Limit Theorems for Functionals of Gaussian Processes”
130. *40th Stochastic Processes and Their Applications Conference*, Gothenburg, Sweden, June 2018. Title: “A New Approach to Tightness Based on Malliavin Calculus”
131. *Theoretical and Applied Stochastic Analysis*, Oaxaca, Mexico, September 9-14, 2018. Title: “Central limit theorems for functionals of Gaussian processes”
132. *International Conference on Stochastic Partial Differential Equations*, University of Alberta, Edmonton, Canada, September 29- October 1 2018. Title: “Central limit theorem for the parabolic Anderson model”
133. *Workshop on Stochastic Analysis*, Ritsumeikan University, Japan, April 2019. Title: “Breuer-Major theorem: tightness and rate of convergence”.
134. *Workshop on Theory and Applications of SPDEs*, Fields Institute, Toronto, Canada, June 10-14, 2019. Two expository talks on: “The parabolic Anderson model”.
135. *International Congress on Industrial and Applied Mathematics*, Session on Recent Advances in Infinite Dimensional Stochastic Analysis - Part 2, Valencia, Spain, July 18 2019.
136. *AMS Sectional Meeting*, Special Session on Stochastic Partial Differential Equations and Related Fields, University of Wisconsin-Madison, September 14-15, 2019. Title: “Central limit theorems for spatial averages of the stochastic heat equation”.
137. *Workshop on Statistics for Stochastic Processes: SDEs, SPDEs and concentration of measure*, University of Luxembourg, September 7-9, 2022. Title: “Gaussian fluctuations and convergence of densities for spatial averages of the stochastic heat equation”.

ONLINE TALKS

1. “Gaussian fluctuations for spatial averages of the parabolic Anderson model with delta initial condition”, April 15, 2020, KU.

2. “Ergodicidad y teorema central del limite para la ecuación de la calor estocástica”, June 17, 2020, Spanish Seminar.
3. “Ergodicity and central limit theorems for the stochastic heat equation”. July 15, 2020, Probability & Statistics Zoominar of Marrakesh.
4. “Ergodicity and Gaussian fluctuations for the stochastic wave equation”. September 15, 2020, SAUCY 20.
5. “Spatial ergodicity and quantitative central limit theorems for the stochastic heat equation”. November 10, 2020, Imperial College London, UK.
6. “Gaussian fluctuations for the stochastic wave equation”. March 20, 2021, Spring Eastern AMS Sectional Meeting.
7. “Introducción a la ecuación de la calor estocástica”. 19-23 April 2021, XIX School of Probability and Statistics, CIMAT, Mexico. Mini-course of three sessions.
8. “Gaussian fluctuations for spatial averages of the stochastic heat equation”, May 17-21, 2021, P. L. Chebyshev 200, VI International Conference on Stochastic Methods.
9. “Convergence of densities for the stochastic heat equation”. June 7-11, 2021. CMA 75th+1 Aniversary. Special Session: SPDEs.
10. “Spatial ergodicity and central limit theorems for the stochastic heat equation”. August 31, 2021, CINVESTAV, Mexico.
11. “Gaussian fluctuations for the stochastic heat equation”. November 4, 2021, Probability and Statistics Seminar, Boston University.
12. “Convergence of densities for the stochastic heat equation”. November 21, 2021, AMS Fall 2021 Southeastern Sectional Meeting. Spetial Session on Stochastic Analysis and Applications.
13. “Gaussian fluctuations for the stochastic heat equation”. December 9, 2021, Probability and Statistics Seminar, Ohio State University.
14. “Limit theorems for additive functionals of the fractional Brownian motion”, March 26, 2022, AMS Spring Central Virtual Sectional Meeting.
15. “Malliavin calculus and tightness of probability laws”, Beijing, August 13 2022.

INVITED COURSES

1. Course on “Noncausal stochastic integrals and calculus” at the *Workshop on Stochastic Analysis*, Silivri, Turkey, July 7-19, 1986
2. Course on “Introducción al cálculo estocástico anticipativo” at the *Congreso Latinoamericano de Probabilidad y Estadística Matemática*, Montevideo, Uruguay, Sept. 19-28, 1988
3. Course on “Cálculo estocástico para procesos no adaptados” at the *VIII Winter School on Statistics and Probability*, Santiago de Chile, July 17-28, 1989
4. Course on “Malliavin Calculus and related topics” at the *8th Winterschool on Stochastic Processes and Optimal Control*, Georghenthal, DDR, Jan. 22-27, 1990

5. Mini-Course on “Stochastic Anticipating Calculus” at the *Workshop on Stochastic Analysis*, Warwick, UK, April 8-12, 1991
6. Course on “Markov fields and transformations of the Wiener measure” at the *Fourth Workshop on Stochastic Analysis*, Oslo, July 6-10, 1992
7. Course on “Markov fields and transformations of the Wiener measure” at the *Semester on Analysis and Probability*, Pisa, Italy, Oct. 1-14, 1992
8. Course on “Analysis on Wiener space and anticipative stochastic calculus” at the *Ecole d’Eté de Calcul des Probabilités*, Saint-Flour, France, July 10-26, 1995
9. Course on “Random Parabolic Equations and Anticipating Stochastic Calculus” at the *Kyushu Probability Summer School on Partial Differential Equations and Probabilities*, Kyushu, Japan Sept. 7-10, 1998
10. Course on “Stochastic calculus with respect to the fractional Brownian motion and applications” at the *Séptimo Simposio de Probabilidad y Procesos Estocásticos*, Mexico June 23-28, 2002
11. Mini-Course on “Stochastic Calculus with respect to fractional Brownian motion” at the *Madeira Math Encounters XXIII*, Madeira, Portugal 5-12 Sept., 2002
12. Mini-Course on “An introduction on rough path analysis and its applications” at the Helsinki University of Technology, 22-24 May 2005
13. Mini-Course on “Fractional Brownian motion: Stochastic Calculus and Applications” at the XIV Escuela Latinoamericana de Matemática, Uruguay, 1-9 December 2005.
14. *International Multidisciplinary Workshop on Stochastic Modeling*, Sevilla, Spain, June 25-29, 2007. Minicourse of five lectures on “Introduction to stochastic differential equations”
15. *NSF-CBMS Reseach Conference* on “Malliavin Calculus and its Applications” at Kent State University, August 7–12, 2008.
16. *RMMC Summer School 2014*. Course on “An Introduction to Malliavin calculus and its applications”, University of Wyoming, May 26 to June 6, 2014.
17. *School of formation and Randomness 2014*. Course on “Malliavin calculus and normal approximations”, Puerto Varas, Chile, December 9–12, 2014.
18. *Jilin University*, Changchun, China, July 2015. Course on “An introduction to Malliavin calculus and its applications”
19. *Gene Golup SIAM Summer School*, Drexel University, Philadelphia, July 2016. Course on: “Stochastic Calculus”
20. *Graduate School of Mathematical Sciences University of Tokyo*, Japan, August 9-10, 2016. Course on: “Malliavin calculus and normal approximations”
21. *Escuela de Probabilidad*, CIMAT, Guanajuato, Mexico, September 2016. Course on: “Malliavin calculus and normal approximations”
22. *CLAPEM XIV*, Universidad de Costa Rica, December 5-9, 2016. Course on: “Introduction to Malliavin calculus and its applications”

23. *27th Jyväskylä Summer School*, Jyväskylä, Finland, August 7-18, 2017. Course on: “Stochastic calculus of variations and normal approximations”
24. *CIMPA-IMH VAST research school on Recent developments in stochastic dynamics and stochastic analysis*, Hanoi, Vietnam, March 5-18, 2018. Course on: “Rough Paths Analysis”.
25. *XXIII Brazilian School of Probability*, Sao Carlos, Brazil, July 22-27, 2019. Course on: “Malliavin calculus and normal approximations”.

CONTRIBUTED TALKS

1. *XI R.A.M.E.*, Murcia, Spain, 1971
2. *Jornadas Hispano Matemáticas Hispano-Lusitanas*, Madrid, Spain, 1973
3. *XII R.A.M.E.*, Málaga, Spain, 1976
4. *Ecole d’Eté de Calcul des Probabilités*, Saint-Flour, France, Aug. 22 to Sept. 8, 1976
5. *Jornadas Matemáticas Hispano-Lusitanas*, Jaca, Spain, 1977
6. *First World Conference on Mathematics at the Service of Man*, Barcelona, Spain, 1977
7. *Ecole d’Eté de Calcul des Probabilités*, Saint-Flour, France, July 5-22, 1978
8. *International Congress of Mathematicians*, Helsinki, 1978
9. *Jornadas Matemáticas Hispano-Lusitanas*, Santander, Spain, June 5-8, 1979
10. *Second International Conference on Information Sciences and Systems*, Patras, Greece, July 9-14, 1979
11. *Jornadas Matemáticas Hispano-Lusitanas*, Coimbra, Portugal, May 4-8, 1981
12. *Ecole d’Eté de Calcul des Probabilités*, Saint-Flour, France, July 6-22, 1981
13. *Third Vilnius Conference on Probability Theory and Mathematical Statistics*, Vilnius, Lithuania, 1981
14. *XI Conference of the Bernoulli Society on Stochastic Processes and Their Applications*, Clermont-Ferrand, France, June 28 to July 2, 1982
15. *XII Conference on Stochastic Processes and Their Applications*, Ithaca, New York, July 11-15, 1983
16. *Ecole d’Eté de Calcul des Probabilités*. Saint-Flour, France, Aug. 19 to Sept. 3, 1984
17. *Ecole d’Eté de Calcul des Probabilités*, Saint-Flour, France, Aug. 19 to Sept. 3, 1986
18. *Ecole d’Eté de Calcul des Probabilités*, Saint-Flour, France, Aug. 21 to Sept. 7, 1988
19. *Ecole d’Eté de Calcul des Probabilités*, Saint-Flour, France, July 2-18, 1990
20. *XX Conference on Stochastic Processes and Their Applications*, Nahariya, Israel, June 4-19, 1991

21. *Ecole d'Eté de Calcul des Probabilités*, Saint-Flour, France, Aug. 18 to Sept. 4 1991
22. *Ecole d'Eté de Calcul des Probabilités*, Saint-Flour, France, July 7-23, 1994
23. *C.I.M.E., session on Stochastic PDE's and Kolmogorov Equations in Infinite Dimensions*, Cetraro, Italy, Aug. 24 to Sept. 1, 1998
24. *26th Conference on Stochastic Processes and Their Applications*. Beijing, China, June 14-18, 1999
25. *Ecole d'Eté de Calcul des Probabilités*, Saint-Flour, France, July 8-24 1999
26. *Ecole CIMPA-UNAS-UNESCO "Méthodes probabilistes pour les équations aux dérivées partielles"*, Marrakech, Marrocco, April 7-21, 2000. Title: "Stochastic calculus with respect to fractional Brownian motion"

PhD STUDENTS

- Marta Sanz (1977). Ph. D. from the University of Barcelona. Title: *Stochastic calculus for processes with a multidimensional parameter*.
- Frederic Utzet (1985). Ph. D. from the University of Barcelona. Title: *Study of some properties of two-parameter continuous martingales*.
- Olga Julià (1985). Ph. D. from the University of Barcelona. Title: *Differentiation, probability law and local time of stochastic integrals in the plane*.
- Conchita Arenas (1987). Ph. D. from the University of Barcelona. Title: *Point processes in the plane and optimal stopping*.
- Mercè Farré (1991). Ph. D. from the University of Barcelona. Title: *Study of some stochastic integral equations on the plane*.
- Marco Ferrante (1993). Ph. D. from SISSA, Trieste. Title: *Markov field property for stochastic difference equations with boundary conditions*.
- Josep Vives (1994). Ph. D. from the University of Barcelona. Title: *Stochastic calculus of variations on the Wiener and Poisson spaces; application to the regularity of the supremum and local time*.
- Aureli Alabert (1995). Ph. D. from the University of Barcelona. Title: *Stochastic differential equations with boundary values*.
- Samy Tindel (1996). Ph. D. from University of Paris VI. Current position: Professor at Purdue University.
- Elisa Alòs (1998). Ph. D. from the University of Barcelona. Title: *Anticipating stochastic integral equations*. Current position: Associate Professor at the Universitat Pompeu Fabra of Barcelona.
- Carmen Florit (1999). Ph. D. from the University of Barcelona. Title: *Martingale problem and approximation in law for two-parameter diffusions*.

- Noureddine Lanjri (1999). Currently employed at the University Ibn Tofail, Marocco. Ph. D. from the University of Barcelona. Title: *Stochastic Burgers equation and backward stochastic differential equations*.
- Silvia Moret (2000). Ph. D. from the University of Barcelona. Title: *Generalizations of Itô's formula and exponential estimates for martingales*.
- Salvador Ortiz (2008) (co-adviser with A. Kohatsu-Higa). Ph. D. from the University of Barcelona. Title: *Contributions to the study of Gaussian processes and the modelization of financial markets with insider information*.
- Joao Guerra (2009) (co-adviser with J. M. Corcuera). Ph. D. from the University of Barcelona. Title: *Beyond Brownian motion: topics on stochastic calculus for fractional Brownian motion and Lévy markets*.
- Jian V. Song (2010) (co-adviser with Y. Hu). Ph. D. from the University of Kansas. Title: *Some topics on the fractional Brownian motion and stochastic partial differential equations*. Current position: Assistant Professor, University of Hong Kong.
- Xiaoming Song (2011) (co-adviser with Y. Hu). Ph. D. from the University of Kansas. Title: *Malliavin calculus for backward stochastic differential equations and stochastic differential equations driven by fractional Brownian motion and some numerical schemes*. Current position: Assistant Professor at Drexel University.
- Pedro Lei (2012). Ph. D. from the University of Kansas. Title: *On the self-similar Gaussian processes*
- Lu Fei (2013) (co-adviser with Y. Hu) Ph. D. from the University of Kansas. Title: *Some applications of Malliavin calculus to SPDE and convergence of densities*. Current position: Assistant Professor at John Hopkins University.
- Daniel Harnett (2013). Ph. D. from the University of Kansas. Title: *Central limit theorems for some symmetric stochastic integrals*. Current position: Assistant Professor at the University of Wisconsin-Stevens Point.
- Jingyu Huang (2015). (co-adviser with Y. Hu). Ph. D. from the University of Kansas. Title: *Stochastic partial differential equations driven by colored noise*. Current position: Lecturer at the University of Birmingham, UK.
- Yanghui Liu (2016) (co-adviser with Y. Hu). Ph. D. from the University of Kansas. Title: *Numerical solutions of rough differential equations and stochastic differential equations*. Current position: Assistant Professor of Mathematics at Baruch College, CUNY.
- Hongjuan Zhou (2018) (co-adviser with Y. Hu). Ph. D. from the University of Kansas. Title: *Parameter estimation for stochastic differential equations driven by fractional Brownian motion*. Current position: Professor of Practice at Arizona State University.
- Arturo Jaramillo (2018). Ph. D. from the University of Kansas. Title: *Limit distributions for functionals of Gaussian processes*. Current position: Researcher at the CIMAT, Mexico.
- Peter Lewis (2018). Ph. D. from the University of Kansas. Title: *Regularity of stochastic Burgers'-type equations*.

- Nicholas Ma (2019) Ph. D. from the University of Kansas. Title: *Hermite variations of the fractional Brownian motion and the stochastic heat equation driven by a rough time fractional noise*.
- Xia Panqui (2020) (co-adviser with Y. Hu). Ph. D. from the University of Kansas. Title: *Branching particle systems, stochastic partial differential equations and nonlinear rough path analysis*. Current position: Postdoc at the University of Copenhagen.
- Raul Bolaños (2021) Ph. D. from the University of Kansas. Title: *Limit distributions for Skorohod integrals and spatial averages of the stochastic wave and heat equations*. Current position: “Profesor interino, Universidad de Costa Rica”.
- Amanda Wilkens (2021) Ph. D. from the University of Kansas. Title: *Bernoulli shift and Poisson system factor map constructions*. Current position: Postdoc at the University of Texas at Austin.
- Saikia Bhargobjyoti (2022) Ph. D. from the University of Kansas. Title: *Euler approximation for stochastic Volterra equations and central limit theorem to a system of stochastic heat equations*.
- Sefika Kuzdun (2022) Ph. D. from the University of Kansas. Title: *Applications of Malliavin-Stein method: spatial averages of solution to stochastic heat equation and Breuer-Major theorem*. Current position: Postdoc at the University of Rochester.

MASTER STUDENTS

- William Reith, KU, 2007
- James Melbourne, KU, 2009
- Ferdinand Hallaré, KU, 2009
- Fengmei Wu, KU, 2013
- Oleksandr Pavlenko, 2015

COURSES TAUGHT AT KU

- Fall semester 2005: Math 290 (Elementary Linear Algebra), Math 590 (Linear Algebra)
- Spring semester 2006: Math 290 (Elementary Linear Algebra), Math 865 (Introduction to Stochastic Processes)
- Fall semester 2006: Math 966 (Stochastic Calculus), Math 728 (Statistics Theory)
- Spring semester 2007: Math 865 (Introduction to Stochastic Processes), Math 940 (Advanced Probability)
- Fall semester 2007: Math 996 (Malliavin Calculus), Math 142 (Calculus II honors), Math 122/142 (Coordinator)
- Spring semester 2008: Math 996 (Introduction to Stochastic Partial Differential Equations)

- Fall semester 2008: Math 320 (Elementary Differential Equations), Math 500 (Intermediate Analysis)
- Spring semester 2009: Math 796 (Mathematical Finance)
- Fall semester 2009: Math 122 (Calculus II), Math 122/142 (Coordinator), Math 727 (Probability Theory)
- Spring semester 2010: Math 996 (Random Matrices)
- Fall semester 2010: Math 526 (Applied Mathematical Statistics I), Math 866 (Stochastic Processes II)
- Spring semester 2011: Math 996 (Stochastic Analysis on Wiener Space)
- Fall semester 2011: Math 627 (Probability), Math 142 (Calculus II honors), Math 122/142 (Coordinator)
- Spring semester 2013: Math 865 (Introduction to Stochastic Processes)
- Fall semester 2013: Math 866 (Stochastic Processes II)
- Spring semester 2014: Math 526 (Applied Mathematical Statistics I), Math 996 (Special Topics course on Stochastic Partial Differential Equations)
- Fall semester 2014: Math 727 (Probability Theory)
- Spring semester 2015: Math 122 (Calculus II)
- Fall semester 2015: Math 866 (Stochastic Processes II)
- Spring semester 2016: Math 940 (Theory of Probability)
- Fall 2016: Math 996 (Special Topics Course on Stochastic Partial Differential Equations)
- Spring 2017: Math 526 (Applied Mathematical Statistics I)
- Fall 2017: Math 125 (Calculus I)
- Spring 2018: Math 996 (Special Topics Course on Malliavin Calculus)
- Fall 2018: Math 866 (Stochastic Processes II)
- Fall 2019: Math 727 (Probability Theory)
- Spring 2020: Math 127 (Calculus III)
- Fall 2020: Math 727 (Probability Theory)
- Spring 2021: Math 996 (Special Topics Course on Stochastic Partial Differential Equations)
- Fall 2021: Math 727 (Probability Theory)
- Spring 2022: Math 865 (Introduction to Stochastic Processes)

REFEREE (journals)

- Acta Mathematica Sinica, Annals de l'Institut Henri Poincaré, Annals of Applied Probability, Annals of Probability, Applied Mathematical Letters, Annals of Statistics, Bernoulli, Bulletin des Sciences Mathématiques, Collectanea Mathematica, Communications on Stochastic Analysis, Comptes Rendus de l'Académie de Sciences de Paris, Discrete and Continuous Dynamical Systems, Electronic Journal of Differential Equations, Estadística Española, Inventiones Mathematicae, Journal of Applied Mathematics and Optimization, Journal of Dynamics and Differential Equations, Journal of Functional Analysis, Journal of Multivariate Analysis, Journal of the Australian Mathematical Society, Journal of Theoretical Probability, Markov Processes and Related Fields, Mathematical Finance, Mathematical Methods in the Applied Sciences, Mathematische Nachrichten, Osaka Journal of Mathematics, Philosophical Transactions: Physical Sciences and Engineering, Portugalia Mathematicae, Probability Theory and Related Fields, Proceedings of the the American Mathematical Society, Probability Surveys, Publicacions Matemàtiques, Publicationes Mathematicae Debrecen, Publications de l'Institut Mathématique, Quantitative Finance, Qüestió, Revista Matemàtica Complutense, SIAM Journal of Control, SIAM Journal on Mathematical Analysis, Statistics and Probability Letters, Stochastic Analysis and Applications, Stochastic Processes and Their Applications, Stochastica, Stochastics and Dynamics, Stochastics and Stochastics Reports, Systems and Control Letters, Trabajos de Estadística, Transactions of the American Mathematical Society

REFeree (agencies)

- Army Research Office, CBMS, Comisión Sectorial de Investigación Científica of Uruguay, European Research Council, Fondecyt National Research Funding, French National Research Agency, German Research Foundation, INTAS, NSA Mathematical Sciences Grant Program, National Science Foundation, Research Council of Norway, Swiss National Science Foundation, The Israel Science Foundation

PROFESSIONAL SOCIETIES

International Statistical Institute

Institute of Mathematical Statistics

Bernoulli Society

Societat Catalana de Matemàtiques

Real Sociedad Matemática Española

The American Association for the Advancement of Science

American Mathematical Society

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LANGUAGES

Spanish, Catalan, French, English