

## References

- [1] Jon Aaronson. *An introduction to infinite ergodic theory*, volume 50 of *Mathematical Surveys and Monographs*. American Mathematical Society, Providence, RI, 1997.
- [2] Abdelmalek Abdesselam. A complete renormalization group trajectory between two fixed points. *Comm. Math. Phys.*, 276(3):727–772, 2007.
- [3] Mark J. Ablowitz and Athanassios S. Fokas. *Complex variables: introduction and applications*. Cambridge Texts in Applied Mathematics. Cambridge University Press, Cambridge, second edition, 2003.
- [4] Romain Abraham and Jean-François Le Gall. Sur la mesure de sortie du super mouvement brownien. *Probab. Theory Related Fields*, 99(2):251–275, 1994.
- [5] Milton Abramowitz and Irene A. Stegun. *Handbook of mathematical functions with formulas, graphs, and mathematical tables*. National Bureau of Standards Applied Mathematics Series, No. 55. U. S. Government Printing Office, Washington, D.C., 1964. For sale by the Superintendent of Documents.
- [6] Milton Abramowitz. *Handbook of mathematical functions, with formulas, graphs, and mathematical tables*. National Bureau of Standards Applied Mathematics Series, No. 55. U. S. Government Printing Office, Washington, D.C., 1965. Superintendent of Documents.
- [7] Wael Abu-Shammala and Alberto Torchinsky. The Hardy-Lorentz spaces  $H^{p,q}(R^n)$ . *Studia Math.*, 182(3):283–294, 2007.
- [8] A. de Acosta and Xia Chen. Moderate deviations for empirical measures of Markov chains: upper bounds. *J. Theoret. Probab.*, 11(4):1075–1110, 1998.
- [9] Robert A. Adams and John J. F. Fournier. *Sobolev spaces*, volume 140 of *Pure and Applied Mathematics (Amsterdam)*. Elsevier/Academic Press, Amsterdam, second edition, 2003.
- [10] David R. Adams and Lars Inge Hedberg. *Function spaces and potential theory*, volume 314 of *Grundlehren der mathematischen Wissenschaften [Fundamental Principles of Mathematical Sciences]*. Springer-Verlag, Berlin, 1996.
- [11] Robert A. Adams. *Sobolev spaces*. Pure and Applied Mathematics, Vol. 65. Academic Press [Harcourt Brace Jovanovich, Publishers], New York-London, 1975.
- [12] Robert J Adler, Jonathan E Taylor, Keith J Worsley, and Keith Worsley. *Applications of random fields and geometry: Foundations and case studies*. 2007.
- [13] Robert J. Adler and Jonathan E. Taylor. *Random fields and geometry*. Springer Monographs in Mathematics. Springer, New York, 2007.
- [14] Mark Adler. Spectral statistics of orthogonal and symplectic ensembles. In *The Oxford handbook of random matrix theory*, pages 86–102. Oxford Univ. Press, Oxford, 2011.
- [15] Robert J. Adler. Hausdorff dimension and Gaussian fields. *Ann. Probability*, 5(1):145–151, 1977.
- [16] Robert J. Adler. *An introduction to continuity, extrema, and related topics for general Gaussian processes*, volume 12 of *Institute of Mathematical Statistics Lecture Notes—Monograph Series*. Institute of Mathematical Statistics, Hayward, CA, 1990.
- [17] Vilhelm Adolfsson and David Jerison.  $L^p$ -integrability of the second order derivatives for the Neumann problem in convex domains. *Indiana Univ. Math. J.*, 43(4):1123–1138, 1994.
- [18] Vilhelm Adolfsson.  $L^2$ -integrability of second-order derivatives for Poisson’s equation in nonsmooth domains. *Math. Scand.*, 70(1):146–160, 1992.

- [19] Vilhelm Adolfsson.  $L^p$ -integrability of the second order derivatives of Green potentials in convex domains. *Pacific J. Math.*, 159(2):201–225, 1993.
- [20] R. P. Agarwal and V. Lakshmikantham. *Uniqueness and nonuniqueness criteria for ordinary differential equations*, volume 6 of *Series in Real Analysis*. World Scientific Publishing Co., Inc., River Edge, NJ, 1993.
- [21] S. Agmon, A. Douglis, and L. Nirenberg. Estimates near the boundary for solutions of elliptic partial differential equations satisfying general boundary conditions. I. *Comm. Pure Appl. Math.*, 12:623–727, 1959.
- [22] Shmuel Agmon. *Lectures on elliptic boundary value problems*. Van Nostrand Mathematical Studies, No. 2. D. Van Nostrand Co., Inc., Princeton, N.J.-Toronto-London, 1965. Prepared for publication by B. Frank Jones, Jr. with the assistance of George W. Batten, Jr.
- [23] Nacira Agram, Yaozhong Hu, and Bernt Øksendal. Mean-field backward stochastic differential equations and applications. *Systems Control Lett.*, 162:Paper No. 105196, 7, 2022.
- [24] Nishant Agrawal, Yaozhong Hu, and Neha Sharma. General product formula of multiple integrals of Lévy process. *J. Stoch. Anal.*, 1(3):Art. 3, 12, 2020.
- [25] Om P. Agrawal. Solution for a fractional diffusion-wave equation defined in a bounded domain. volume 29, pages 145–155. 2002. Fractional order calculus and its applications.
- [26] Lars V. Ahlfors. *Complex analysis*. International Series in Pure and Applied Mathematics. McGraw-Hill Book Co., New York, third edition, 1978. An introduction to the theory of analytic functions of one complex variable.
- [27] Nasir Uddin Ahmed, Marco Fuhrman, and Jerzy Zabczyk. On filtering equations in infinite dimensions. *J. Funct. Anal.*, 143(1):180–204, 1997.
- [28] N. U. Ahmed and J. Zabczyk. Partially observed optimal controls for nonlinear infinite-dimensional stochastic systems. *Dynam. Systems Appl.*, 5(4):521–538, 1996.
- [29] E. Aïdékon, J. Berestycki, É. Brunet, and Z. Shi. Branching Brownian motion seen from its tip. *Probab. Theory Related Fields*, 157(1-2):405–451, 2013.
- [30] Elie Aïdékon and Zhan Shi. Weak convergence for the minimal position in a branching random walk: a simple proof. *Period. Math. Hungar.*, 61(1-2):43–54, 2010.
- [31] Elie Aidekon and Zhan Shi. The Seneta-Heyde scaling for the branching random walk. *Ann. Probab.*, 42(3):959–993, 2014.
- [32] Elie Aïdékon. Convergence in law of the minimum of a branching random walk. *Ann. Probab.*, 41(3A):1362–1426, 2013.
- [33] Hélène Airault, Jiagang Ren, and Xicheng Zhang. Smoothness of local times of semimartingales. *C. R. Acad. Sci. Paris Sér. I Math.*, 330(8):719–724, 2000.
- [34] M. Aizenman and P. Contucci. On the stability of the quenched state in mean-field spin-glass models. *J. Statist. Phys.*, 92(5-6):765–783, 1998.
- [35] Michael Aizenman, Ivan Corwin, Jürg Fröhlich, Giovanni Gallavotti, Shelly Goldstein, and Herbert Spohn. Introduction to the special issue in honor of Joel Lebowitz. *J. Stat. Phys.*, 180(1-6):1–3, 2020.
- [36] Michael Aizenman and Stanislav Molchanov. Localization at large disorder and at extreme energies: an elementary derivation. *Comm. Math. Phys.*, 157(2):245–278, 1993.
- [37] Michael Aizenman and Simone Warzel. The canopy graph and level statistics for random operators on trees. *Math. Phys. Anal. Geom.*, 9(4):291–333 (2007), 2006.

- [38] Michael Aizenman and Simone Warzel. *Random operators*, volume 168 of *Graduate Studies in Mathematics*. American Mathematical Society, Providence, RI, 2015. Disorder effects on quantum spectra and dynamics.
- [39] Michael Aizenman. Geometric analysis of  $\varphi^4$  fields and Ising models. I, II. *Comm. Math. Phys.*, 86(1):1–48, 1982.
- [40] G. Akemann, J. Baik, and P. Di Francesco. Introduction and guide to the handbook. In *The Oxford handbook of random matrix theory*, pages 3–14. Oxford Univ. Press, Oxford, 2011.
- [41] Gernot Akemann, Jinho Baik, and Philippe Di Francesco. *The Oxford handbook of random matrix theory*. Oxford University Press, Oxford, 2011.
- [42] Aureli Alabert, Marco Ferrante, and David Nualart. Markov field property of stochastic differential equations. *Ann. Probab.*, 23(3):1262–1288, 1995.
- [43] Aureli Alabert and David Nualart. Some remarks on the conditional independence and the Markov property. In *Stochastic analysis and related topics (Sivri, 1990)*, volume 31 of *Progr. Probab.*, pages 343–363. Birkhäuser Boston, Boston, MA, 1992.
- [44] Aureli Alabert and David Nualart. A second-order Stratonovich differential equation with boundary conditions. *Stochastic Process. Appl.*, 68(1):21–47, 1997.
- [45] Tom Alberts, Konstantin Khanin, and Jeremy Quastel. The continuum directed random polymer. *J. Stat. Phys.*, 154(1-2):305–326, 2014.
- [46] Tom Alberts, Konstantin Khanin, and Jeremy Quastel. The intermediate disorder regime for directed polymers in dimension  $1 + 1$ . *Ann. Probab.*, 42(3):1212–1256, 2014.
- [47] S. Albeverio, Z. Brzeźniak, and L. D abrowski. Fundamental solution of the heat and Schrödinger equations with point interaction. *J. Funct. Anal.*, 130(1):220–254, 1995.
- [48] S. Albeverio, F. Gesztesy, R. Hø egh Krohn, and H. Holden. *Solvable models in quantum mechanics*. AMS Chelsea Publishing, Providence, RI, second edition, 2005. With an appendix by Pavel Exner.
- [49] Sergio Albeverio, Zbigniew Haba, and Francesco Russo. A two-space dimensional semilinear heat equation perturbed by (Gaussian) white noise. *Probab. Theory Related Fields*, 121(3):319–366, 2001.
- [50] Sergio Albeverio, Yaozhong Hu, and Xian Yin Zhou. A remark on non-smoothness of the self-intersection local time of planar Brownian motion. *Statist. Probab. Lett.*, 32(1):57–65, 1997.
- [51] S. Albeverio, Y.-Z. Hu, M. Röckner, and X. Y. Zhou. Stochastic quantization of the two-dimensional polymer measure. *Appl. Math. Optim.*, 40(3):341–354, 1999.
- [52] Sergio Albeverio, Stanislav A. Molchanov, and Donatas Surgailis. Stratified structure of the Universe and Burgers’ equation—a probabilistic approach. *Probab. Theory Related Fields*, 100(4):457–484, 1994.
- [53] S. Albeverio and M. Röckner. Stochastic differential equations in infinite dimensions: solutions via Dirichlet forms. *Probab. Theory Related Fields*, 89(3):347–386, 1991.
- [54] Sergio Albeverio and Xian Yin Zhou. A martingale approach to directed polymers in a random environment. *J. Theoret. Probab.*, 9(1):171–189, 1996.
- [55] Francisco C. Alcaraz, Michel Droz, Malte Henkel, and Vladimir Rittenberg. Reaction-diffusion processes, critical dynamics, and quantum chains. *Ann. Physics*, 230(2):250–302, 1994.

- [56] A. Aleksandrov, J. Bourgain, M. Giesecke, V. Havin, and Yu. Vymenets. Uniqueness and free interpolation for logarithmic potentials and the Cauchy problem for the Laplace equation in  $\mathbf{R}^2$ . *Geom. Funct. Anal.*, 5(3):529–571, 1995.
- [57] Serge Alinhac. Blowup of small data solutions for a quasilinear wave equation in two space dimensions. *Ann. of Math. (2)*, 149(1):97–127, 1999.
- [58] Grégoire Allaire. Homogenization and two-scale convergence. *SIAM J. Math. Anal.*, 23(6):1482–1518, 1992.
- [59] Romain Allez, Rémi Rhodes, and Vincent Vargas. Lognormal  $\star$ -scale invariant random measures. *Probab. Theory Related Fields*, 155(3-4):751–788, 2013.
- [60] Michael Allman, Volker Betz, and Martin Hairer. A chain of interacting particles under strain. *Stochastic Process. Appl.*, 121(9):2014–2042, 2011.
- [61] Hassan Allouba and Erkan Nane. Interacting time-fractional and  $\Delta^\nu$  PDEs systems via Brownian-time and inverse-stable-Lévy-time Brownian sheets. *Stoch. Dyn.*, 13(1):1250012, 31, 2013.
- [62] Hassan Allouba and Weian Zheng. Brownian-time processes: the PDE connection and the half-derivative generator. *Ann. Probab.*, 29(4):1780–1795, 2001.
- [63] Hassan Allouba. Brownian-time Brownian motion SIEs on  $R_+ \times R^d$ : ultra regular direct and lattice-limits solutions and fourth order SPDEs links. *Discrete Contin. Dyn. Syst.*, 33(2):413–463, 2013.
- [64] Hassan Allouba. Time-fractional and memoryful  $\Delta^{2^k}$  SIEs on  $R_+ \times R^d$ : how far can we push white noise? *Illinois J. Math.*, 57(4):919–963, 2013.
- [65] H. Allouba. Different types of SPDEs in the eyes of Girsanov’s theorem. *Stochastic Anal. Appl.*, 16(5):787–810, 1998.
- [66] Noga Alon and Jean Bourgain. Additive patterns in multiplicative subgroups. *Geom. Funct. Anal.*, 24(3):721–739, 2014.
- [67] E. Alòs, J. A. León, and D. Nualart. Stochastic Stratonovich calculus fBm for fractional Brownian motion with Hurst parameter less than  $1/2$ . *Taiwanese J. Math.*, 5(3):609–632, 2001.
- [68] Elisa Alòs, Jorge A. León, and David Nualart. Stochastic heat equation with random coefficients. *Probab. Theory Related Fields*, 115(1):41–94, 1999.
- [69] Elisa Alòs, Olivier Mazet, and David Nualart. Stochastic calculus with respect to fractional Brownian motion with Hurst parameter lesser than  $\frac{1}{2}$ . *Stochastic Process. Appl.*, 86(1):121–139, 2000.
- [70] Elisa Alòs, Olivier Mazet, and David Nualart. Stochastic calculus with respect to Gaussian processes. *Ann. Probab.*, 29(2):766–801, 2001.
- [71] E. Alòs, D. Nualart, and F. Viens. Stochastic heat equation with white-noise drift. *Ann. Inst. H. Poincaré Probab. Statist.*, 36(2):181–218, 2000.
- [72] Elisa Alòs and David Nualart. Stochastic integration with respect to the fractional Brownian motion. *Stoch. Stoch. Rep.*, 75(3):129–152, 2003.
- [73] Elisa Alòs and David Nualart. Anticipating stochastic Volterra equations. *Stochastic Process. Appl.*, 72(1):73–95, 1997.

- [74] Elisa Alòs and David Nualart. A maximal inequality for the Skorohod integral. In *Stochastic differential and difference equations (Győr, 1996)*, volume 23 of *Progr. Systems Control Theory*, pages 241–251. Birkhäuser Boston, Boston, MA, 1997.
- [75] Elisa Alòs and David Nualart. An extension of Itô’s formula for anticipating processes. *J. Theoret. Probab.*, 11(2):493–514, 1998.
- [76] Eitan Altman and Ofer Zeitouni. Rate of convergence of empirical measures and costs in controlled Markov chains and transient optimality. *Math. Oper. Res.*, 19(4):955–974, 1994.
- [77] L. Alvarez-Gaumé, J. L. F. Barbón, and Č. Crnković. A proposal for strings at  $D > 1$ . *Nuclear Phys. B*, 394(2):383–422, 1993.
- [78] Debora Amadori. Unstable blow-up patterns. *Differential Integral Equations*, 8(8):1977–1996, 1995.
- [79] J. Ambjørn, B. Durhuus, and T. Jónsson. A solvable 2D gravity model with  $\gamma > 0$ . *Modern Phys. Lett. A*, 9(13):1221–1228, 1994.
- [80] Luigi Ambrosio, Jean Bourgain, Haïm Brezis, and Alessio Figalli. Perimeter of sets and BMO-type norms. *C. R. Math. Acad. Sci. Paris*, 352(9):697–698, 2014.
- [81] Luigi Ambrosio, Jean Bourgain, Haim Brezis, and Alessio Figalli. BMO-type norms related to the perimeter of sets. *Comm. Pure Appl. Math.*, 69(6):1062–1086, 2016.
- [82] Gideon Amir, Ivan Corwin, and Jeremy Quastel. Probability distribution of the free energy of the continuum directed random polymer in  $1 + 1$  dimensions. *Comm. Pure Appl. Math.*, 64(4):466–537, 2011.
- [83] Chiara Amorino and Eulalia Nualart. Optimal convergence rates for the invariant density estimation of jump-diffusion processes. *ESAIM Probab. Stat.*, 26:126–151, 2022.
- [84] Alano Ancona. First eigenvalues and comparison of Green’s functions for elliptic operators on manifolds or domains. *J. Anal. Math.*, 72:45–92, 1997.
- [85] Greg W. Anderson, Alice Guionnet, and Ofer Zeitouni. *An introduction to random matrices*, volume 118 of *Cambridge Studies in Advanced Mathematics*. Cambridge University Press, Cambridge, 2010.
- [86] David F. Anderson, Timo Seppäläinen, and Benedek Valkó. *Introduction to probability*. Cambridge Mathematical Textbooks. Cambridge University Press, Cambridge, 2018.
- [87] Greg W. Anderson and Ofer Zeitouni. A CLT for a band matrix model. *Probab. Theory Related Fields*, 134(2):283–338, 2006.
- [88] Greg W. Anderson and Ofer Zeitouni. A CLT for regularized sample covariance matrices. *Ann. Statist.*, 36(6):2553–2576, 2008.
- [89] Greg W. Anderson and Ofer Zeitouni. A law of large numbers for finite-range dependent random matrices. *Comm. Pure Appl. Math.*, 61(8):1118–1154, 2008.
- [90] Greg W. Anderson. Spectral statistics of unitary ensembles. In *The Oxford handbook of random matrix theory*, pages 66–85. Oxford Univ. Press, Oxford, 2011.
- [91] T. W. Anderson. The integral of a symmetric unimodal function over a symmetric convex set and some probability inequalities. *Proc. Amer. Math. Soc.*, 6:170–176, 1955.
- [92] P. W. Anderson. Absence of diffusion in certain random lattices. *Phys. Rev.*, 109:1492–1505, Mar 1958.

- [93] Brian D. O. Anderson. Reverse-time diffusion equation models. *Stochastic Process. Appl.*, 12(3):313–326, 1982.
- [94] Pierre Andrieux and Roland Del. Limit law of the local time for Brox’s diffusion. *J. Theoret. Probab.*, 24(3):634–656, 2011.
- [95] Alessandro Andreoli, Francesco Caravenna, Paolo Dai Pra, and Gustavo Posta. Scaling and multiscaling in financial series: a simple model. *Adv. in Appl. Probab.*, 44(4):1018–1051, 2012.
- [96] D. Andreucci, M. A. Herrero, and J. J. L. Velázquez. Liouville theorems and blow up behaviour in semilinear reaction diffusion systems. *Ann. Inst. H. Poincaré C Anal. Non Linéaire*, 14(1):1–53, 1997.
- [97] G. E. Andrews.  $q$ -hypergeometric and related functions. In *NIST handbook of mathematical functions*, pages 419–433. U.S. Dept. Commerce, Washington, DC, 2010.
- [98] S. B. Angenent and D. G. Aronson. The focusing problem for the radially symmetric porous medium equation. *Comm. Partial Differential Equations*, 20(7-8):1217–1240, 1995.
- [99] Sigurd B. Angenent and Marek Fila. Interior gradient blow-up in a semilinear parabolic equation. *Differential Integral Equations*, 9(5):865–877, 1996.
- [100] Sigurd Angenent, Allen Tannenbaum, Anthony Yezzi, Jr., and Ofer Zeitouni. Curve shortening and interacting particle systems. In *Statistics and analysis of shapes*, Model. Simul. Sci. Eng. Technol., pages 303–311. Birkhäuser Boston, Boston, MA, 2006.
- [101] S. B. Angenent and J. J. L. Velázquez. Asymptotic shape of cusp singularities in curve shortening. *Duke Math. J.*, 77(1):71–110, 1995.
- [102] S. B. Angenent and J. J. L. Velázquez. Degenerate neckpinches in mean curvature flow. *J. Reine Angew. Math.*, 482:15–66, 1997.
- [103] Rikard Anton, David Cohen, and Lluís Quer-Sardanyons. A fully discrete approximation of the one-dimensional stochastic heat equation. *IMA J. Numer. Anal.*, 40(1):247–284, 2020.
- [104] T. M. Apostol. Functions of number theory. In *NIST handbook of mathematical functions*, pages 637–649. U.S. Dept. Commerce, Washington, DC, 2010.
- [105] T. M. Apostol. Zeta and related functions. In *NIST handbook of mathematical functions*, pages 601–616. U.S. Dept. Commerce, Washington, DC, 2010.
- [106] Tom M. Apostol. *Introduction to analytic number theory*. Undergraduate Texts in Mathematics. Springer-Verlag, New York-Heidelberg, 1976.
- [107] David Applebaum. *Lévy processes and stochastic calculus*, volume 93 of *Cambridge Studies in Advanced Mathematics*. Cambridge University Press, Cambridge, 2004.
- [108] A. Apte, M. Hairer, A. M. Stuart, and J. Voss. Sampling the posterior: an approach to non-Gaussian data assimilation. *Phys. D*, 230(1-2):50–64, 2007.
- [109] Wolfgang Arendt, Charles J. K. Batty, Matthias Hieber, and Frank Neubrander. *Vector-valued Laplace transforms and Cauchy problems*, volume 96 of *Monographs in Mathematics*. Birkhäuser Verlag, Basel, 2001.
- [110] Louis-Pierre Arguin and Michael Aizenman. On the structure of quasi-stationary competing particle systems. *Ann. Probab.*, 37(3):1080–1113, 2009.
- [111] L.-P. Arguin, A. Bovier, and N. Kistler. Genealogy of extremal particles of branching Brownian motion. *Comm. Pure Appl. Math.*, 64(12):1647–1676, 2011.

- [112] Louis-Pierre Arguin, Anton Bovier, and Nicola Kistler. Poissonian statistics in the extremal process of branching Brownian motion. *Ann. Appl. Probab.*, 22(4):1693–1711, 2012.
- [113] Louis-Pierre Arguin, Anton Bovier, and Nicola Kistler. The extremal process of branching Brownian motion. *Probab. Theory Related Fields*, 157(3-4):535–574, 2013.
- [114] Louis-Pierre Arguin and Sourav Chatterjee. Random overlap structures: properties and applications to spin glasses. *Probab. Theory Related Fields*, 156(1-2):375–413, 2013.
- [115] Louis-Pierre Arguin and Olivier Zindy. Poisson-Dirichlet statistics for the extremes of a log-correlated Gaussian field. *Ann. Appl. Probab.*, 24(4):1446–1481, 2014.
- [116] S. Argyros, J. Bourgain, and T. Zachariades. A result on the isomorphic embeddability of  $l^1(\Gamma)$ . *Studia Math.*, 78(1):77–91, 1984.
- [117] Ery Arias-Castro, Emmanuel J. Candès, Hannes Helgason, and Ofer Zeitouni. Searching for a trail of evidence in a maze. *Ann. Statist.*, 36(4):1726–1757, 2008.
- [118] Scott N. Armstrong, Sylvia Serfaty, and Ofer Zeitouni. Remarks on a constrained optimization problem for the Ginibre ensemble. *Potential Anal.*, 41(3):945–958, 2014.
- [119] Scott N. Armstrong and Ofer Zeitouni. Local asymptotics for controlled martingales. *Ann. Appl. Probab.*, 26(3):1467–1494, 2016.
- [120] Ludwig Arnold. *Random dynamical systems*. Springer Monographs in Mathematics. Springer-Verlag, Berlin, 1998.
- [121] D. G. Aronson, L. A. Caffarelli, and S. Kamin. How an initially stationary interface begins to move in porous medium flow. *SIAM J. Math. Anal.*, 14(4):639–658, 1983.
- [122] D. G. Aronson, L. A. Caffarelli, and Juan Luis Vázquez. Interfaces with a corner point in one-dimensional porous medium flow. *Comm. Pure Appl. Math.*, 38(4):375–404, 1985.
- [123] D. G. Aronson, O. Gil, and J. L. Vázquez. Limit behaviour of focusing solutions to nonlinear diffusions. *Comm. Partial Differential Equations*, 23(1-2):307–332, 1998.
- [124] D. G. Aronson and H. F. Weinberger. Multidimensional nonlinear diffusion arising in population genetics. *Adv. in Math.*, 30(1):33–76, 1978.
- [125] Gérard Ben Arous, Eliran Subag, and Ofer Zeitouni. Geometry and temperature chaos in mixed spherical spin glasses at low temperature: the perturbative regime. *Comm. Pure Appl. Math.*, 73(8):1732–1828, 2020.
- [126] Gérard Ben Arous, Allen Tannenbaum, and Ofer Zeitouni. Stochastic approximations to curve-shortening flows via particle systems. *J. Differential Equations*, 195(1):119–142, 2003.
- [127] Mercedes Arriojas, Yaozhong Hu, Salah-Eldin Mohammed, and Gyula Pap. A delayed Black and Scholes formula. *Stoch. Anal. Appl.*, 25(2):471–492, 2007.
- [128] R. A. Askey and R. Roy. Gamma function. In *NIST handbook of mathematical functions*, pages 135–147. U.S. Dept. Commerce, Washington, DC, 2010.
- [129] Nakhlé Asmar, Earl Berkson, and Jean Bourgain. Restrictions from  $R^n$  to  $Z^n$  of weak type  $(1, 1)$  multipliers. *Studia Math.*, 108(3):291–299, 1994.
- [130] Søren Asmussen and Peter W. Glynn. *Stochastic simulation: algorithms and analysis*, volume 57 of *Stochastic Modelling and Applied Probability*. Springer, New York, 2007.
- [131] Sunday A. Asogwa, Mohammud Foondun, Jebessa B. Mijena, and Erkan Nane. Critical parameters for reaction-diffusion equations involving space-time fractional derivatives. *NoDEA Nonlinear Differential Equations Appl.*, 27(3):Paper No. 30, 22, 2020.

- [132] Sunday A. Asogwa, Jebessa B. Mijena, and Erkan Nane. Blow-up results for space-time fractional stochastic partial differential equations. *Potential Anal.*, 53(2):357–386, 2020.
- [133] Sunday A. Asogwa and Erkan Nane. Intermittency fronts for space-time fractional stochastic partial differential equations in  $(d + 1)$  dimensions. *Stochastic Process. Appl.*, 127(4):1354–1374, 2017.
- [134] Sigurd Assing and James Bichard. On the spatial dynamics of the solution to the stochastic heat equation. *Electron. J. Probab.*, 18:no. 70, 32, 2013.
- [135] Sigurd Assing, Franco Flandoli, and Umberto Pappaletta. Stochastic model reduction: convergence and applications to climate equations. *J. Evol. Equ.*, 21(4):3813–3848, 2021.
- [136] Sigurd Assing and John Herman. Extension technique for functions of diffusion operators: a stochastic approach. *Electron. J. Probab.*, 26:Paper No. 67, 32, 2021.
- [137] Sigurd Assing and Astrid Hilbert. On the collapse of trial solutions for a damped-driven nonlinear Schrödinger equation. *Nonlinearity*, 31(11):4955–4978, 2018.
- [138] Sigurd Assing, Saul Jacka, and Adriana Ocejo. Monotonicity of the value function for a two-dimensional optimal stopping problem. *Ann. Appl. Probab.*, 24(4):1554–1584, 2014.
- [139] Sigurd Assing and Ralf Manthey. Invariant measures for stochastic heat equations with unbounded coefficients. *Stochastic Process. Appl.*, 103(2):237–256, 2003.
- [140] S. Assing and R. Manthey. The behavior of solutions of stochastic differential inequalities. *Probab. Theory Related Fields*, 103(4):493–514, 1995.
- [141] Sigurd Assing and Wolfgang M. Schmidt. *Continuous strong Markov processes in dimension one*, volume 1688 of *Lecture Notes in Mathematics*. Springer-Verlag, Berlin, 1998. A stochastic calculus approach.
- [142] Sigurd Assing and Torsten Senf. On stochastic differential equations without drift. *Stochastics Stochastics Rep.*, 36(1):21–39, 1991.
- [143] Sigurd Assing. Infinite-dimensional Langevin equations: uniqueness and rate of convergence for finite-dimensional approximations. *Probab. Theory Related Fields*, 120(2):143–167, 2001.
- [144] Sigurd Assing. A pregenerator for Burgers equation forced by conservative noise. *Comm. Math. Phys.*, 225(3):611–632, 2002.
- [145] Sigurd Assing. A limit theorem for quadratic fluctuations in symmetric simple exclusion. *Stochastic Process. Appl.*, 117(6):766–790, 2007.
- [146] Sigurd Assing. A rigorous equation for the Cole-Hopf solution of the conservative KPZ equation. *Stoch. Partial Differ. Equ. Anal. Comput.*, 1(2):365–388, 2013.
- [147] Sigurd Assing. On reflected solutions of stochastic differential equations with ordinary drift. *Stochastics Stochastics Rep.*, 42(3-4):183–198, 1993.
- [148] Sigurd Assing. Comparison of systems of stochastic partial differential equations. *Stochastic Process. Appl.*, 82(2):259–282, 1999.
- [149] Rami Atar, Frederi Viens, and Ofer Zeitouni. Robustness of Zakai’s equation via Feynman-Kac representations. In *Stochastic analysis, control, optimization and applications*, Systems Control Found. Appl., pages 339–352. Birkhäuser Boston, Boston, MA, 1999.
- [150] Rami Atar and Ofer Zeitouni. Exponential stability for nonlinear filtering. *Ann. Inst. H. Poincaré Probab. Statist.*, 33(6):697–725, 1997.



- [151] Rami Atar and Ofer Zeitouni. Lyapunov exponents for finite state nonlinear filtering. *SIAM J. Control Optim.*, 35(1):36–55, 1997.
- [152] Rami Atar and Ofer Zeitouni. A note on the memory length of optimal nonlinear filters. *Systems Control Lett.*, 35(2):131–135, 1998.
- [153] Siva Athreya, Oleg Butkovsky, and Leonid Mytnik. Strong existence and uniqueness for stable stochastic differential equations with distributional drift. *Ann. Probab.*, 48(1):178–210, 2020.
- [154] Siva Athreya, Mathew Joseph, and Carl Mueller. Small ball probabilities and a support theorem for the stochastic heat equation. *Ann. Probab.*, 49(5):2548–2572, 2021.
- [155] Mohamed Atlagh and Michel Weber. Le théorème central limite presque sûr. *Expo. Math.*, 18(2):97–126, 2000.
- [156] Fanny Augeri, Raphael Butez, and Ofer Zeitouni. A CLT for the characteristic polynomial of random Jacobi matrices, and the  $G\beta E$ . *Probab. Theory Related Fields*, 186(1-2):1–89, 2023.
- [157] Frank Aurzada, Sumit Mukherjee, and Ofer Zeitouni. Persistence exponents in Markov chains. *Ann. Inst. Henri Poincaré Probab. Stat.*, 57(3):1411–1441, 2021.
- [158] Antoine Ayache and Yimin Xiao. Asymptotic properties and Hausdorff dimensions of fractional Brownian sheets. *J. Fourier Anal. Appl.*, 11(4):407–439, 2005.
- [159] R. Azencott. Grandes déviations et applications. In *Eighth Saint Flour Probability Summer School—1978 (Saint Flour, 1978)*, volume 774 of *Lecture Notes in Math.*, pages 1–176. Springer, Berlin, 1980.
- [160] Ehsan Azmoodeh and Ivan Nourdin. Almost sure limit theorems on Wiener chaos: the non-central case. *Electron. Commun. Probab.*, 24:Paper No. 9, 12, 2019.
- [161] Charles M. Bachmann, Leon N. Cooper, Amir Dembo, and Ofer Zeitouni. A relaxation model for memory with high storage density. *Proc. Nat. Acad. Sci. U.S.A.*, 84(21):7529–7531, 1987.
- [162] Charles M. Bachmann, Leon N. Cooper, Amir Dembo, and Ofer Zeitouni. Correction: “A relaxation model for memory with high storage density”. *Proc. Nat. Acad. Sci. U.S.A.*, 85(4):1081, 1988.
- [163] E. Bacry and J. F. Muzy. Log-infinitely divisible multifractal processes. *Comm. Math. Phys.*, 236(3):449–475, 2003.
- [164] Boris Baeumer, Mark M. Meerschaert, and Erkan Nane. Brownian subordinators and fractional Cauchy problems. *Trans. Amer. Math. Soc.*, 361(7):3915–3930, 2009.
- [165] Boris Baeumer, Mark M. Meerschaert, and Erkan Nane. Space-time duality for fractional diffusion. *J. Appl. Probab.*, 46(4):1100–1115, 2009.
- [166] Boris Baeumer and Mark M. Meerschaert. Stochastic solutions for fractional Cauchy problems. *Fract. Calc. Appl. Anal.*, 4(4):481–500, 2001.
- [167] Hajer Bahouri, Jean-Yves Chemin, and Raphaël Danchin. *Fourier analysis and nonlinear partial differential equations*, volume 343 of *Grundlehren der mathematischen Wissenschaften [Fundamental Principles of Mathematical Sciences]*. Springer, Heidelberg, 2011.
- [168] Jinho Baik, Guillaume Barraquand, Ivan Corwin, and Toufic Suidan. Facilitated exclusion process. In *Computation and combinatorics in dynamics, stochasticity and control*, volume 13 of *Abel Symp.*, pages 1–35. Springer, Cham, 2018.
- [169] Jinho Baik, Guillaume Barraquand, Ivan Corwin, and Toufic Suidan. Pfaffian Schur processes and last passage percolation in a half-quadrant. *Ann. Probab.*, 46(6):3015–3089, 2018.

- [170] Jinho Baik, Percy Deift, and Kurt Johansson. On the distribution of the length of the longest increasing subsequence of random permutations. *J. Amer. Math. Soc.*, 12(4):1119–1178, 1999.
- [171] Alan Bain and Dan Crisan. *Fundamentals of stochastic filtering*, volume 60 of *Stochastic Modelling and Applied Probability*. Springer, New York, 2009.
- [172] R. Baiod, D. Kessler, P. Ramanlal, L. Sander, and R. Savit. Dynamical scaling of the surface of finite-density ballistic aggregation. *Phys. Rev. A*, 38:3672–3679, Oct 1988.
- [173] Yuri Bakhtin and Carl Mueller. Solutions of semilinear wave equation via stochastic cascades. *Commun. Stoch. Anal.*, 4(3):425–431, 2010.
- [174] Dominique Bakry, Serge Cohen, Martin Hairer, and Jean-Michel Roquejoffre. Preface [Interactions between probability and partial differential equations]. *Ann. Fac. Sci. Toulouse Math. (6)*, 26(4):i–ii, 2017.
- [175] Guillaume Bal, Josselin Garnier, Yu Gu, and Wenjia Jing. Corrector theory for elliptic equations with long-range correlated random potential. *Asymptot. Anal.*, 77(3-4):123–145, 2012.
- [176] Guillaume Bal, Yu Gu, and Olivier Pinaud. Radiative transport limit of Dirac equations with random electromagnetic field. *Comm. Partial Differential Equations*, 43(5):699–732, 2018.
- [177] Guillaume Bal and Yu Gu. Limiting models for equations with large random potential: a review. *Commun. Math. Sci.*, 13(3):729–748, 2015.
- [178] Guillaume Bal. Homogenization with large spatial random potential. *Multiscale Model. Simul.*, 8(4):1484–1510, 2010.
- [179] Guillaume Bal. Convergence to homogenized or stochastic partial differential equations. *Appl. Math. Res. Express. AMRX*, (2):215–241, 2011.
- [180] Raluca M. Balan, Le Chen, and Xia Chen. Exact asymptotics of the stochastic wave equation with time-independent noise. *Ann. Inst. Henri Poincaré Probab. Stat.*, 58(3):1590–1620, 2022.
- [181] Raluca Balan, Le Chen, and Yiping Ma. Parabolic Anderson model with rough noise in space and rough initial conditions. *Electron. Commun. Probab.*, 27:Paper No. 65, 12, 2022.
- [182] Raluca M. Balan and Le Chen. Parabolic Anderson model with space-time homogeneous Gaussian noise and rough initial condition. *J. Theoret. Probab.*, 31(4):2216–2265, 2018.
- [183] Raluca M. Balan and Daniel Conus. A note on intermittency for the fractional heat equation. *Statist. Probab. Lett.*, 95:6–14, 2014.
- [184] Raluca M. Balan and Daniel Conus. Intermittency for the wave and heat equations with fractional noise in time. *Ann. Probab.*, 44(2):1488–1534, 2016.
- [185] R. M. Balan, L. Dumitrescu, and I. Schiopu-Kratina. Asymptotically optimal estimating equation with strongly consistent solutions for longitudinal data. *Math. Methods Statist.*, 19(2):93–120, 2010.
- [186] R. M. Balan and B. G. Ivanoff. A Markov property for set-indexed processes. *J. Theoret. Probab.*, 15(3):553–588, 2002.
- [187] Raluca Balan, Adam Jakubowski, and Sana Louhichi. Functional convergence of linear processes with heavy-tailed innovations. *J. Theoret. Probab.*, 29(2):491–526, 2016.
- [188] R. M. Balan and D. Jankovic. Asymptotic theory for longitudinal data with missing responses adjusted by inverse probability weights. *Math. Methods Statist.*, 28(2):83–103, 2019.

- [189] Raluca M. Balan, Maria Jolis, and Lluís Quer-Sardanyons. SPDEs with affine multiplicative fractional noise in space with index  $\frac{1}{4} < H < \frac{1}{2}$ . *Electron. J. Probab.*, 20:no. 54, 36, 2015.
- [190] Raluca M. Balan, Maria Jolis, and Lluís Quer-Sardanyons. SPDEs with rough noise in space: Hölder continuity of the solution. *Statist. Probab. Lett.*, 119:310–316, 2016.
- [191] Raluca M. Balan, Maria Jolis, and Lluís Quer-Sardanyons. Intermittency for the hyperbolic Anderson model with rough noise in space. *Stochastic Process. Appl.*, 127(7):2316–2338, 2017.
- [192] Raluca Balan and Doyoon Kim. The stochastic heat equation driven by a Gaussian noise: germ Markov property. *Commun. Stoch. Anal.*, 2(2):229–249, 2008.
- [193] Raluca M. Balan and Rafał Kulik. Weak invariance principle for mixing sequences in the domain of attraction of normal law. *Studia Sci. Math. Hungar.*, 46(3):329–343, 2009.
- [194] Raluca M. Balan and Sana Louhichi. Convergence of point processes with weakly dependent points. *J. Theoret. Probab.*, 22(4):955–982, 2009.
- [195] Raluca Balan and Sana Louhichi. Explicit conditions for the convergence of point processes associated to stationary arrays. *Electron. Commun. Probab.*, 15:428–441, 2010.
- [196] Raluca Balan and Sana Louhichi. A cluster-limit theorem for infinitely divisible point processes. *Statistics*, 45(1):3–18, 2011.
- [197] Raluca M. Balan and Cheikh B. Ndongo. Intermittency for the wave equation with Lévy white noise. *Statist. Probab. Lett.*, 109:214–223, 2016.
- [198] Raluca M. Balan and Cheikh B. Ndongo. Malliavin differentiability of solutions of SPDEs with Lévy white noise. *Int. J. Stoch. Anal.*, pages Art. ID 9693153, 9, 2017.
- [199] Raluca M. Balan, David Nualart, Lluís Quer-Sardanyons, and Guangqu Zheng. The hyperbolic Anderson model: moment estimates of the Malliavin derivatives and applications. *Stoch. Partial Differ. Equ. Anal. Comput.*, 10(3):757–827, 2022.
- [200] Raluca M. Balan, Lluís Quer-Sardanyons, and Jian Song. Existence of density for the stochastic wave equation with space-time homogeneous Gaussian noise. *Electron. J. Probab.*, 24:Paper No. 106, 43, 2019.
- [201] Raluca M. Balan, Lluís Quer-Sardanyons, and Jian Song. Hölder continuity for the parabolic Anderson model with space-time homogeneous Gaussian noise. *Acta Math. Sci. Ser. B (Engl. Ed.)*, 39(3):717–730, 2019.
- [202] Raluca M. Balan and Becem Saidani. Stable Lévy motion with values in the Skorokhod space: construction and approximation. *J. Theoret. Probab.*, 33(2):1061–1110, 2020.
- [203] Raluca M. Balan and Becem Saidani. Weak convergence and tightness of probability measures in an abstract Skorohod space. *Rev. Roumaine Math. Pures Appl.*, 65(2):177–200, 2020.
- [204] R. M. Balan and I. Schiopu-Kratina. Asymptotic results with generalized estimating equations for longitudinal data. *Ann. Statist.*, 33(2):522–541, 2005.
- [205] Raluca M. Balan and Jian Song. Hyperbolic Anderson model with space-time homogeneous Gaussian noise. *ALEA Lat. Am. J. Probab. Math. Stat.*, 14(2):799–849, 2017.
- [206] Raluca M. Balan and Jian Song. Second order Lyapunov exponents for parabolic and hyperbolic Anderson models. *Bernoulli*, 25(4A):3069–3089, 2019.
- [207] Raluca Balan and George Stoica. A note on the weak law of large numbers for free random variables. *Ann. Sci. Math. Québec*, 31(1):23–30, 2007.

- [208] Raluca M. Balan and Ciprian A. Tudor. The stochastic heat equation with fractional-colored noise: existence of the solution. *ALEA Lat. Am. J. Probab. Math. Stat.*, 4:57–87, 2008.
- [209] Raluca M. Balan and Ciprian A. Tudor. Erratum to: “The stochastic heat equation with fractional-colored noise: existence of the solution” [mr2413088]. *ALEA Lat. Am. J. Probab. Math. Stat.*, 6:343–347, 2009.
- [210] Raluca M. Balan and Ciprian A. Tudor. The stochastic wave equation with fractional noise: a random field approach. *Stochastic Process. Appl.*, 120(12):2468–2494, 2010.
- [211] Raluca M. Balan and Ciprian A. Tudor. Stochastic heat equation with multiplicative fractional-colored noise. *J. Theoret. Probab.*, 23(3):834–870, 2010.
- [212] Raluca M. Balan and Wangjun Yuan. Spatial integral of the solution to hyperbolic Anderson model with time-independent noise. *Stochastic Process. Appl.*, 152:177–207, 2022.
- [213] Raluca Balan and Ingrid-Mona Zamfirescu. Strong approximation for mixing sequences with infinite variance. *Electron. Comm. Probab.*, 11:11–23, 2006.
- [214] Raluca M. Balan. *Set-Markov processes*. ProQuest LLC, Ann Arbor, MI, 2001. Thesis (Ph.D.)–University of Ottawa (Canada).
- [215] R. M. Balan. A strong Markov property for set-indexed processes. *Statist. Probab. Lett.*, 53(2):219–226, 2001.
- [216] R. M. Balan. Set-indexed processes with independent increments. *Statist. Probab. Lett.*, 59(4):415–424, 2002.
- [217] R. M. Balan.  $Q$ -Markov random probability measures and their posterior distributions. *Stochastic Process. Appl.*, 109(2):295–316, 2004.
- [218] Raluca M. Balan. A strong invariance principle for associated random fields. *Ann. Probab.*, 33(2):823–840, 2005.
- [219] R. M. Balan. Markov jump random c.d.f.’s and their posterior distributions. *Stochastic Process. Appl.*, 117(3):359–374, 2007.
- [220] Raluca Balan. A note on a Feynman-Kac-type formula. *Electron. Commun. Probab.*, 14:252–260, 2009.
- [221] Raluca Balan. Stochastic heat equation with infinite dimensional fractional noise:  $L_2$ -theory. *Commun. Stoch. Anal.*, 3(1):45–68, 2009.
- [222] Raluca M. Balan.  $L_p$ -theory for the stochastic heat equation with infinite-dimensional fractional noise. *ESAIM Probab. Stat.*, 15:110–138, 2011.
- [223] Raluca M. Balan. Linear SPDEs driven by stationary random distributions. *J. Fourier Anal. Appl.*, 18(6):1113–1145, 2012.
- [224] Raluca M. Balan. Some linear SPDEs driven by a fractional noise with Hurst index greater than  $1/2$ . *Infin. Dimens. Anal. Quantum Probab. Relat. Top.*, 15(4):1250023, 27, 2012.
- [225] Raluca M. Balan. The stochastic wave equation with multiplicative fractional noise: a Malliavin calculus approach. *Potential Anal.*, 36(1):1–34, 2012.
- [226] Raluca M. Balan. Recent advances related to SPDEs with fractional noise. In *Seminar on Stochastic Analysis, Random Fields and Applications VII*, volume 67 of *Progr. Probab.*, pages 3–22. Birkhäuser/Springer, Basel, 2013.
- [227] Raluca Balan. Regular variation of infinite series of processes with random coefficients. *Stoch. Models*, 30(3):420–438, 2014.

- [228] Raluca M. Balan. SPDEs with  $\alpha$ -stable Lévy noise: a random field approach. *Int. J. Stoch. Anal.*, pages Art. ID 793275, 22, 2014.
- [229] Raluca M. Balan. Integration with respect to Lévy colored noise, with applications to SPDEs. *Stochastics*, 87(3):363–381, 2015.
- [230] Márton Balázs, Ofer Busani, and Timo Seppäläinen. Non-existence of bi-infinite geodesics in the exponential corner growth model. *Forum Math. Sigma*, 8:Paper No. e46, 34, 2020.
- [231] Márton Balázs, Ofer Busani, and Timo Seppäläinen. Local stationarity in exponential last-passage percolation. *Probab. Theory Related Fields*, 180(1-2):113–162, 2021.
- [232] M. Balázs, E. Cator, and T. Seppäläinen. Cube root fluctuations for the corner growth model associated to the exclusion process. *Electron. J. Probab.*, 11:no. 42, 1094–1132, 2006.
- [233] Márton Balázs, Júlia Komjáthy, and Timo Seppäläinen. Fluctuation bounds in the exponential bricklayers process. *J. Stat. Phys.*, 147(1):35–62, 2012.
- [234] Márton Balázs, Júlia Komjáthy, and Timo Seppäläinen. Microscopic concavity and fluctuation bounds in a class of deposition processes. *Ann. Inst. Henri Poincaré Probab. Stat.*, 48(1):151–187, 2012.
- [235] M. Balázs, J. Quastel, and T. Seppäläinen. Fluctuation exponent of the KPZ/stochastic Burgers equation. *J. Amer. Math. Soc.*, 24(3):683–708, 2011.
- [236] Márton Balázs, Firas Rassoul-Agha, and Timo Seppäläinen. The random average process and random walk in a space-time random environment in one dimension. *Comm. Math. Phys.*, 266(2):499–545, 2006.
- [237] M. Balázs, F. Rassoul-Agha, T. Seppäläinen, and S. Sethuraman. Existence of the zero range process and a deposition model with superlinear growth rates. *Ann. Probab.*, 35(4):1201–1249, 2007.
- [238] Márton Balázs, Firas Rassoul-Agha, and Timo Seppäläinen. Large deviations and wandering exponent for random walk in a dynamic beta environment. *Ann. Probab.*, 47(4):2186–2229, 2019.
- [239] Márton Balázs and Timo Seppäläinen. Exact connections between current fluctuations and the second class particle in a class of deposition models. *J. Stat. Phys.*, 127(2):431–455, 2007.
- [240] Márton Balázs and Timo Seppäläinen. Fluctuation bounds for the asymmetric simple exclusion process. *ALEA Lat. Am. J. Probab. Math. Stat.*, 6:1–24, 2009.
- [241] Márton Balázs and Timo Seppäläinen. Order of current variance and diffusivity in the asymmetric simple exclusion process. *Ann. of Math. (2)*, 171(2):1237–1265, 2010.
- [242] P. Baldi and B. Roynette. Some exact equivalents for the Brownian motion in Hölder norm. *Probab. Theory Related Fields*, 93(4):457–484, 1992.
- [243] Paolo Baldi and Marta Sanz-Solé. Modulus of continuity for stochastic flows. In *Barcelona Seminar on Stochastic Analysis (St. Feliu de Guíxols, 1991)*, volume 32 of *Progr. Probab.*, pages 1–20. Birkhäuser, Basel, 1993.
- [244] P. Baldi and M. Sanz. Une remarque sur la théorie des grandes déviations. In *Séminaire de Probabilités, XXV*, volume 1485 of *Lecture Notes in Math.*, pages 345–348. Springer, Berlin, 1991.
- [245] Vlad Bally and Lucia Caramellino. Riesz transform and integration by parts formulas for random variables. *Stochastic Process. Appl.*, 121(6):1332–1355, 2011.

- [246] Vlad Bally, Annie Millet, and Marta Sanz-Solé. Approximation and support theorem in Hölder norm for parabolic stochastic partial differential equations. *Ann. Probab.*, 23(1):178–222, 1995.
- [247] Vlad Bally and Etienne Pardoux. Malliavin calculus for white noise driven parabolic SPDEs. *Potential Anal.*, 9(1):27–64, 1998.
- [248] Catherine Bandle and Hermann Brunner. Blowup in diffusion equations: a survey. *J. Comput. Appl. Math.*, 97(1-2):3–22, 1998.
- [249] Antar Bandyopadhyay and Ofer Zeitouni. Random walk in dynamic Markovian random environment. *ALEA Lat. Am. J. Probab. Math. Stat.*, 1:205–224, 2006.
- [250] Rodrigo Bañuelos, Jebessa B. Mijena, and Erkan Nane. Two-term trace estimates for relativistic stable processes. *J. Math. Anal. Appl.*, 410(2):837–846, 2014.
- [251] Albert-László Barabási and H. Eugene Stanley. *Fractal concepts in surface growth*. Cambridge University Press, Cambridge, 1995.
- [252] P. Baras and L. Cohen. Complete blow-up after  $T_{\max}$  for the solution of a semilinear heat equation. *J. Funct. Anal.*, 71(1):142–174, 1987.
- [253] Pierre Baras and Jerome A. Goldstein. The heat equation with a singular potential. *Trans. Amer. Math. Soc.*, 284(1):121–139, 1984.
- [254] X. Bardina, D. Bascompte, C. Rovira, and S. Tindel. An analysis of a stochastic model for bacteriophage systems. *Math. Biosci.*, 241(1):99–108, 2013.
- [255] Xavier Bardina, Maria Jolis, and Lluís Quer-Sardanyons. Weak convergence for the stochastic heat equation driven by Gaussian white noise. *Electron. J. Probab.*, 15:no. 39, 1267–1295, 2010.
- [256] Xavier Bardina, David Márquez-Carreras, Carles Rovira, and Samy Tindel. Higher order expansions for the overlap of the SK model. In *Seminar on Stochastic Analysis, Random Fields and Applications IV*, volume 58 of *Progr. Probab.*, pages 21–43. Birkhäuser, Basel, 2004.
- [257] Xavier Bardina, David Márquez-Carreras, Carles Rovira, and Samy Tindel. The  $p$ -spin interaction model with external field. *Potential Anal.*, 21(4):311–362, 2004.
- [258] Xavier Bardina, Juan Pablo Márquez, and Lluís Quer-Sardanyons. Weak approximation of the complex Brownian sheet from a Lévy sheet and applications to SPDEs. *Stochastic Process. Appl.*, 130(9):5735–5767, 2020.
- [259] X. Bardina, I. Nourdin, C. Rovira, and S. Tindel. Weak approximation of a fractional SDE. *Stochastic Process. Appl.*, 120(1):39–65, 2010.
- [260] Xavier Bardina, Carles Rovira, and Samy Tindel. Asymptotic evaluation of the Poisson measures for tubes around jump curves. *Appl. Math. (Warsaw)*, 29(2):145–156, 2002.
- [261] Xavier Bardina, Carles Rovira, and Samy Tindel. Onsager Machlup functional for stochastic evolution equations in a class of norms. *Stochastic Anal. Appl.*, 21(6):1231–1253, 2003.
- [262] Xavier Bardina, Carles Rovira, and Samy Tindel. Onsager-Machlup functional for stochastic evolution equations. *Ann. Inst. H. Poincaré Probab. Statist.*, 39(1):69–93, 2003.
- [263] Xavier Bardina, Carles Rovira, and Samy Tindel. Weak approximation of fractional SDEs: the Donsker setting. *Electron. Commun. Probab.*, 15:314–329, 2010.

- [264] Grigory Isaakovich Barenblatt. *Scaling, self-similarity, and intermediate asymptotics*, volume 14 of *Cambridge Texts in Applied Mathematics*. Cambridge University Press, Cambridge, 1996. With a foreword by Ya. B. Zeldovich.
- [265] Martin T. Barlow and Richard F. Bass. Random walks on graphical Sierpinski carpets. In *Random walks and discrete potential theory (Cortona, 1997)*, Sympos. Math., XXXIX, pages 26–55. Cambridge Univ. Press, Cambridge, 1999.
- [266] M. T. Barlow and D. Nualart. *Lectures on probability theory and statistics*, volume 1690 of *Lecture Notes in Mathematics*. Springer-Verlag, Berlin, 1998. Lectures from the 25th Saint-Flour Summer School held July 10–26, 1995, Edited by P. Bernard.
- [267] M. T. Barlow and M. Yor. Semimartingale inequalities via the Garsia-Rodemich-Rumsey lemma, and applications to local times. *J. Functional Analysis*, 49(2):198–229, 1982.
- [268] Martin T. Barlow. Random walks on supercritical percolation clusters. *Ann. Probab.*, 32(4):3024–3084, 2004.
- [269] Martin T. Barlow. Random walks and diffusions on fractals. In *Proceedings of the International Congress of Mathematicians, Vol. I, II (Kyoto, 1990)*, pages 1025–1035. Math. Soc. Japan, Tokyo, 1991.
- [270] Julien Barral, Xiong Jin, Rémi Rhodes, and Vincent Vargas. Gaussian multiplicative chaos and KPZ duality. *Comm. Math. Phys.*, 323(2):451–485, 2013.
- [271] Julien Barral, Antti Kupiainen, Miika Nikula, Eero Saksman, and Christian Webb. Critical Mandelbrot cascades. *Comm. Math. Phys.*, 325(2):685–711, 2014.
- [272] Julien Barral and Benoît B. Mandelbrot. Multifractal products of cylindrical pulses. *Probab. Theory Related Fields*, 124(3):409–430, 2002.
- [273] Julien Barral, Rémi Rhodes, and Vincent Vargas. Limiting laws of supercritical branching random walks. *C. R. Math. Acad. Sci. Paris*, 350(9-10):535–538, 2012.
- [274] Julien Barral. Moments, continuité, et analyse multifractale des martingales de Mandelbrot. *Probab. Theory Related Fields*, 113(4):535–569, 1999.
- [275] Guillaume Barraquand, Alexei Borodin, Ivan Corwin, and Michael Wheeler. Stochastic six-vertex model in a half-quadrant and half-line open asymmetric simple exclusion process. *Duke Math. J.*, 167(13):2457–2529, 2018.
- [276] Guillaume Barraquand, Alexei Borodin, and Ivan Corwin. Half-space Macdonald processes. *Forum Math. Pi*, 8:e11, 150, 2020.
- [277] Guillaume Barraquand, Ivan Corwin, and Evgeni Dimitrov. Fluctuations of the log-gamma polymer free energy with general parameters and slopes. *Probab. Theory Related Fields*, 181(1-3):113–195, 2021.
- [278] Guillaume Barraquand and Ivan Corwin. The  $q$ -Hahn asymmetric exclusion process. *Ann. Appl. Probab.*, 26(4):2304–2356, 2016.
- [279] Guillaume Barraquand and Ivan Corwin. Random-walk in beta-distributed random environment. *Probab. Theory Related Fields*, 167(3-4):1057–1116, 2017.
- [280] Guillaume Barraquand and Ivan Corwin. Correction to: Random-walk in beta-distributed random environment. *Probab. Theory Related Fields*, 183(3-4):1329–1336, 2022.
- [281] Michał Bąski, Jacek Jakubowski, and Jerzy Zabczyk. On incompleteness of bond markets with infinite number of random factors. *Math. Finance*, 21(3):541–556, 2011.

- [282] MichałBarski and Jerzy Zabczyk. Completeness of bond market driven by Lévy process. *Int. J. Theor. Appl. Finance*, 13(5):635–656, 2010.
- [283] MichałBarski and Jerzy Zabczyk. Forward rate models with linear volatilities. *Finance Stoch.*, 16(3):537–560, 2012.
- [284] MichałBarski and Jerzy Zabczyk. Heath-Jarrow-Morton-Musiela equation with Lévy perturbation. *J. Differential Equations*, 253(9):2657–2697, 2012.
- [285] MichałBarski and Jerzy Zabczyk. On CIR equations with general factors. *SIAM J. Financial Math.*, 11(1):131–147, 2020.
- [286] MichałBarski and Jerzy Zabczyk. A note on generalized CIR equations. *Commun. Inf. Syst.*, 21(2):209–218, 2021.
- [287] F. Barthe and D. Cordero-Erausquin. Inverse Brascamp-Lieb inequalities along the heat equation. In *Geometric aspects of functional analysis*, volume 1850 of *Lecture Notes in Math.*, pages 65–71. Springer, Berlin, 2004.
- [288] Franck Barthe and Nolwen Huet. On Gaussian Brunn-Minkowski inequalities. *Studia Math.*, 191(3):283–304, 2009.
- [289] Franck Barthe. On a reverse form of the Brascamp-Lieb inequality. *Invent. Math.*, 134(2):335–361, 1998.
- [290] N. H. Barton, A. M. Etheridge, and A. Véber. A new model for evolution in a spatial continuum. *Electron. J. Probab.*, 15:no. 7, 162–216, 2010.
- [291] Anirban Basak, Nicholas Cook, and Ofer Zeitouni. Circular law for the sum of random permutation matrices. *Electron. J. Probab.*, 23:Paper No. 33, 51, 2018.
- [292] Anirban Basak, Elliot Paquette, and Ofer Zeitouni. Regularization of non-normal matrices by Gaussian noise—the banded Toeplitz and twisted Toeplitz cases. *Forum Math. Sigma*, 7:Paper No. e3, 72, 2019.
- [293] Anirban Basak, Elliot Paquette, and Ofer Zeitouni. Spectrum of random perturbations of Toeplitz matrices with finite symbols. *Trans. Amer. Math. Soc.*, 373(7):4999–5023, 2020.
- [294] Anirban Basak, Martin Vogel, and Ofer Zeitouni. Localization of eigenvectors of nonhermitian banded noisy Toeplitz matrices. *Probab. Math. Phys.*, 4(3):477–607, 2023.
- [295] Anirban Basak and Ofer Zeitouni. Outliers of random perturbations of Toeplitz matrices with finite symbols. *Probab. Theory Related Fields*, 178(3-4):771–826, 2020.
- [296] Estelle Basor, Albrecht Böttcher, Ivan Corwin, Persi Diaconis, Torsten Ehrhardt, Al Kelley, Barry Simon, Craig A. Tracy, and Tony Tromba. Remembrances of Harold Widom. *Notices Amer. Math. Soc.*, 69(4):586–598, 2022.
- [297] Estelle L. Basor, Craig A. Tracy, and Harold Widom. Asymptotics of level-spacing distributions for random matrices. *Phys. Rev. Lett.*, 69(1):5–8, 1992.
- [298] Estelle L. Basor, Craig A. Tracy, and Harold Widom. Errata: “Asymptotics of level-spacing distributions for random matrices”. *Phys. Rev. Lett.*, 69(19):2880, 1992.
- [299] Estelle L. Basor and Craig A. Tracy. The Fisher-Hartwig conjecture and generalizations. volume 177, pages 167–173. 1991. Current problems in statistical mechanics (Washington, DC, 1991).
- [300] Estelle L. Basor and Craig A. Tracy. Asymptotics of a tau-function and Toeplitz determinants with singular generating functions. In *Infinite analysis, Part A, B (Kyoto, 1991)*, volume 16 of *Adv. Ser. Math. Phys.*, pages 83–107. World Sci. Publ., River Edge, NJ, 1992.



- [301] Estelle L. Basor and Craig A. Tracy. Variance calculations and the Bessel kernel. *J. Statist. Phys.*, 73(1-2):415–421, 1993.
- [302] Richard F. Bass, Krzysztof Burdzy, Zhen-Qing Chen, and Martin Hairer. Stationary distributions for diffusions with inert drift. *Probab. Theory Related Fields*, 146(1-2):1–47, 2010.
- [303] Richard F. Bass, Krzysztof Burdzy, and Davar Khoshnevisan. Intersection local time for points of infinite multiplicity. *Ann. Probab.*, 22(2):566–625, 1994.
- [304] Richard Bass, Xia Chen, and Jay Rosen. Large deviations for renormalized self-intersection local times of stable processes. *Ann. Probab.*, 33(3):984–1013, 2005.
- [305] Richard F. Bass, Xia Chen, and Jay Rosen. Moderate deviations and laws of the iterated logarithm for the renormalized self-intersection local times of planar random walks. *Electron. J. Probab.*, 11:no. 37, 993–1030, 2006.
- [306] Richard Bass, Xia Chen, and Jay Rosen. Large deviations for Riesz potentials of additive processes. *Ann. Inst. Henri Poincaré Probab. Stat.*, 45(3):626–666, 2009.
- [307] Richard F. Bass, Xia Chen, and Jay Rosen. Moderate deviations for the range of planar random walks. *Mem. Amer. Math. Soc.*, 198(929):viii+82, 2009.
- [308] Richard F. Bass and Zhen-Qing Chen. Stochastic differential equations for Dirichlet processes. *Probab. Theory Related Fields*, 121(3):422–446, 2001.
- [309] Richard F. Bass and Xia Chen. Self-intersection local time: critical exponent, large deviations, and laws of the iterated logarithm. *Ann. Probab.*, 32(4):3221–3247, 2004.
- [310] Richard F. Bass and Davar Khoshnevisan. Local times on curves and uniform invariance principles. *Probab. Theory Related Fields*, 92(4):465–492, 1992.
- [311] Richard Bass and Davar Khoshnevisan. Stochastic calculus and the continuity of local times of Lévy processes. In *Séminaire de Probabilités, XXVI*, volume 1526 of *Lecture Notes in Math.*, pages 1–10. Springer, Berlin, 1992.
- [312] Richard F. Bass and Davar Khoshnevisan. Intersection local times and Tanaka formulas. *Ann. Inst. H. Poincaré Probab. Statist.*, 29(3):419–451, 1993.
- [313] Richard F. Bass and Davar Khoshnevisan. Rates of convergence to Brownian local time. *Stochastic Process. Appl.*, 47(2):197–213, 1993.
- [314] Richard F. Bass and Davar Khoshnevisan. Strong approximations to Brownian local time. In *Seminar on Stochastic Processes, 1992 (Seattle, WA, 1992)*, volume 33 of *Progr. Probab.*, pages 43–65. Birkhäuser Boston, Boston, MA, 1993.
- [315] Richard F. Bass and Davar Khoshnevisan. Laws of the iterated logarithm for local times of the empirical process. *Ann. Probab.*, 23(1):388–399, 1995.
- [316] Richard F. Bass. Probability estimates for multiparameter Brownian processes. *Ann. Probab.*, 16(1):251–264, 1988.
- [317] Richard F. Bass. *Probabilistic techniques in analysis*. Probability and its Applications (New York). Springer-Verlag, New York, 1995.
- [318] Richard F. Bass. *Diffusions and elliptic operators*. Probability and its Applications (New York). Springer-Verlag, New York, 1998.
- [319] Riddhipratim Basu, Amir Dembo, Naomi Feldheim, and Ofer Zeitouni. Exponential concentration for zeroes of stationary Gaussian processes. *Int. Math. Res. Not. IMRN*, (23):9769–9796, 2020.

- [320] Erik Bates and Sourav Chatterjee. The endpoint distribution of directed polymers. *Ann. Probab.*, 48(2):817–871, 2020.
- [321] Fabrice Baudoin and Li Chen. Dirichlet fractional gaussian fields on the sierpinski gasket and their discrete graph approximations. *preprint arXiv:2201.03970*, January 2022.
- [322] Fabrice Baudoin, Qi Feng, and Cheng Ouyang. Density of the signature process of FBM. *Trans. Amer. Math. Soc.*, 373(12):8583–8610, 2020.
- [323] Fabrice Baudoin, Martin Hairer, and Josef Teichmann. Ornstein-Uhlenbeck processes on Lie groups. *J. Funct. Anal.*, 255(4):877–890, 2008.
- [324] Fabrice Baudoin and Martin Hairer. A version of Hörmander’s theorem for the fractional Brownian motion. *Probab. Theory Related Fields*, 139(3-4):373–395, 2007.
- [325] F. Baudoin, E. Nualart, C. Ouyang, and S. Tindel. On probability laws of solutions to differential systems driven by a fractional Brownian motion. *Ann. Probab.*, 44(4):2554–2590, 2016.
- [326] Fabrice Baudoin and David Nualart. Equivalence of Volterra processes. *Stochastic Process. Appl.*, 107(2):327–350, 2003.
- [327] Fabrice Baudoin and David Nualart. Corrigendum to: “Equivalence of Volterra processes” [Stochastic Process. Appl. **107** (2003), no. 2, 327–350; mr1999794]. *Stochastic Process. Appl.*, 115(4):701–703, 2005.
- [328] Fabrice Baudoin and David Nualart. Notes on the two-dimensional fractional Brownian motion. *Ann. Probab.*, 34(1):159–180, 2006.
- [329] Fabrice Baudoin, Cheng Ouyang, and Samy Tindel. Upper bounds for the density of solutions to stochastic differential equations driven by fractional Brownian motions. *Ann. Inst. Henri Poincaré Probab. Stat.*, 50(1):111–135, 2014.
- [330] Fabrice Baudoin, Cheng Ouyang, and Xuejing Zhang. Varadhan estimates for rough differential equations driven by fractional Brownian motions. *Stochastic Process. Appl.*, 125(2):634–652, 2015.
- [331] Fabrice Baudoin, Cheng Ouyang, and Xuejing Zhang. Smoothing effect of rough differential equations driven by fractional Brownian motions. *Ann. Inst. Henri Poincaré Probab. Stat.*, 52(1):412–428, 2016.
- [332] Fabrice Baudoin, Cheng Ouyang, Samy Tindel, and Jing Wang. Parabolic anderson model on heisenberg groups: the itô setting. *preprint arXiv:2206.14139*, June 2022.
- [333] Fabrice Baudoin, Cheng Ouyang, Samy Tindel, and Jing Wang. Parabolic Anderson model on Heisenberg groups: the Itô setting. *J. Funct. Anal.*, 285(1):Paper No. 109920, 44, 2023.
- [334] Fabrice Baudoin and Cheng Ouyang. Small-time kernel expansion for solutions of stochastic differential equations driven by fractional Brownian motions. *Stochastic Process. Appl.*, 121(4):759–792, 2011.
- [335] Fabrice Baudoin and Cheng Ouyang. Gradient bounds for solutions of stochastic differential equations driven by fractional Brownian motions. In *Malliavin calculus and stochastic analysis*, volume 34 of *Springer Proc. Math. Stat.*, pages 413–426. Springer, New York, 2013.
- [336] Fabrice Baudoin and Cheng Ouyang. On small time asymptotics for rough differential equations driven by fractional Brownian motions. In *Large deviations and asymptotic methods in finance*, volume 110 of *Springer Proc. Math. Stat.*, pages 413–438. Springer, Cham, 2015.

- [337] Roland Bauerschmidt, David C. Brydges, and Gordon Slade. Scaling limits and critical behaviour of the 4-dimensional  $n$ -component  $|\phi|^4$  spin model. *J. Stat. Phys.*, 157(4-5):692–742, 2014.
- [338] Roland Bauerschmidt, David C. Brydges, and Gordon Slade. Critical two-point function of the 4-dimensional weakly self-avoiding walk. *Comm. Math. Phys.*, 338(1):169–193, 2015.
- [339] Roland Bauerschmidt, David C. Brydges, and Gordon Slade. Logarithmic correction for the susceptibility of the 4-dimensional weakly self-avoiding walk: a renormalisation group analysis. *Comm. Math. Phys.*, 337(2):817–877, 2015.
- [340] Roland Bauerschmidt, David C. Brydges, and Gordon Slade. A renormalisation group method. III. Perturbative analysis. *J. Stat. Phys.*, 159(3):492–529, 2015.
- [341] Roland Bauerschmidt, David C. Brydges, and Gordon Slade. *Introduction to a renormalisation group method*, volume 2242 of *Lecture Notes in Mathematics*. Springer, Singapore, 2019.
- [342] Roland Bauerschmidt, Hugo Duminil-Copin, Jesse Goodman, and Gordon Slade. Lectures on self-avoiding walks. In *Probability and statistical physics in two and more dimensions*, volume 15 of *Clay Math. Proc.*, pages 395–467. Amer. Math. Soc., Providence, RI, 2012.
- [343] Roland Bauerschmidt, Gordon Slade, Alexandre Tomberg, and Benjamin C. Wallace. Finite-order correlation length for four-dimensional weakly self-avoiding walk and  $|\varphi|^4$  spins. *Ann. Henri Poincaré*, 18(2):375–402, 2017.
- [344] Roland Bauerschmidt. A simple method for finite range decomposition of quadratic forms and Gaussian fields. *Probab. Theory Related Fields*, 157(3-4):817–845, 2013.
- [345] Drumi Bauinov and Pavel Simeonov. *Integral inequalities and applications*, volume 57 of *Mathematics and its Applications (East European Series)*. Kluwer Academic Publishers Group, Dordrecht, 1992. Translated by R. A. M. Hoksbergen and V. Kovachev [V. Khr. Kovachev].
- [346] J. R. Baxter and G. A. Brosamler. Energy and the law of the iterated logarithm. *Math. Scand.*, 38(1):115–136, 1976.
- [347] J. R. Baxter, N. C. Jain, and T. O. Seppäläinen. Large deviations for nonstationary arrays and sequences. *Illinois J. Math.*, 37(2):302–328, 1993.
- [348] Rodney J. Baxter. *Exactly solved models in statistical mechanics*. Academic Press, Inc. [Harcourt Brace Jovanovich, Publishers], London, 1982.
- [349] J. Bebernes and S. Bricher. Final time blowup profiles for semilinear parabolic equations via center manifold theory. *SIAM J. Math. Anal.*, 23(4):852–869, 1992.
- [350] Jerrold Bebernes and David Eberly. *Mathematical problems from combustion theory*, volume 83 of *Applied Mathematical Sciences*. Springer-Verlag, New York, 1989.
- [351] József Beck. *Inevitable randomness in discrete mathematics*, volume 49 of *University Lecture Series*. American Mathematical Society, Providence, RI, 2009.
- [352] Peter Becker-Kern, Mark M. Meerschaert, and Hans-Peter Scheffler. Limit theorem for continuous-time random walks with two time scales. *J. Appl. Probab.*, 41(2):455–466, 2004.
- [353] William Beckner. Inequalities in Fourier analysis. *Ann. of Math. (2)*, 102(1):159–182, 1975.
- [354] C. W. J. Beenakker. Classical and quantum optics. In *The Oxford handbook of random matrix theory*, pages 744–758. Oxford Univ. Press, Oxford, 2011.

- [355] Vincent Beffara. Schramm-Loewner evolution and other conformally invariant objects. In *Probability and statistical physics in two and more dimensions*, volume 15 of *Clay Math. Proc.*, pages 1–48. Amer. Math. Soc., Providence, RI, 2012.
- [356] H. van Beijeren, R. Kutner, and H. Spohn. Excess noise for driven diffusive systems. *Phys. Rev. Lett.*, 54(18):2026–2029, 1985.
- [357] Dmitry Beliaev, Bertrand Duplantier, and Michel Zinsmeister. Integral means spectrum of whole-plane SLE. *Comm. Math. Phys.*, 353(1):119–133, 2017.
- [358] David Belius, Jay Rosen, and Ofer Zeitouni. Barrier estimates for a critical Galton-Watson process and the cover time of the binary tree. *Ann. Inst. Henri Poincaré Probab. Stat.*, 55(1):127–154, 2019.
- [359] David Belius, Jay Rosen, and Ofer Zeitouni. Correction to: Tightness for the cover time of the two dimensional sphere. *Probab. Theory Related Fields*, 176(3-4):1439–1444, 2020.
- [360] David Belius, Jay Rosen, and Ofer Zeitouni. Tightness for the cover time of the two dimensional sphere. *Probab. Theory Related Fields*, 176(3-4):1357–1437, 2020.
- [361] Denis Bell and David Nualart. Noncentral limit theorem for the generalized Hermite process. *Electron. Commun. Probab.*, 22:Paper No. 66, 13, 2017.
- [362] Richard Bellman. *A brief introduction to theta functions*. Athena Series: Selected Topics in Mathematics. Holt, Rinehart and Winston, New York, 1961.
- [363] Stefano Bellucci and Andrey Yu. Trifonov. Semiclassically concentrated solutions for the one-dimensional Fokker-Planck equation with a nonlocal nonlinearity. *J. Phys. A*, 38(7):L103–L114, 2005.
- [364] Iddo Ben-Ari. Large deviations for partition functions of directed polymers in an IID field. *Ann. Inst. Henri Poincaré Probab. Stat.*, 45(3):770–792, 2009.
- [365] Gérard Ben Arous and Ivan Corwin. Current fluctuations for TASEP: a proof of the Prähofer-Spohn conjecture. *Ann. Probab.*, 39(1):104–138, 2011.
- [366] Gérard Ben Arous, Mihai Gruadinaru, and Michel Ledoux. Hölder norms and the support theorem for diffusions. *Ann. Inst. H. Poincaré Probab. Statist.*, 30(3):415–436, 1994.
- [367] G. Ben Arous and A. Guionnet. Wigner matrices. In *The Oxford handbook of random matrix theory*, pages 433–451. Oxford Univ. Press, Oxford, 2011.
- [368] Gerard Ben Arous, Yueyun Hu, Stefano Olla, and Ofer Zeitouni. Einstein relation for biased random walk on Galton-Watson trees. *Ann. Inst. Henri Poincaré Probab. Stat.*, 49(3):698–721, 2013.
- [369] Gérard Ben Arous, Jeremy Quastel, and Alejandro F. Ramírez. Internal DLA in a random environment. *Ann. Inst. H. Poincaré Probab. Statist.*, 39(2):301–324, 2003.
- [370] Gerard Ben Arous, Allen Tannenbaum, and Ofer Zeitouni. Crystalline stochastic systems and curvature driven flows. In *Mathematical systems theory in biology, communications, computation, and finance (Notre Dame, IN, 2002)*, volume 134 of *IMA Vol. Math. Appl.*, pages 41–61. Springer, New York, 2003.
- [371] Gérard Ben Arous and Ofer Zeitouni. Large deviations from the circular law. *ESAIM Probab. Statist.*, 2:123–134, 1998.
- [372] G. Ben Arous and O. Zeitouni. Increasing propagation of chaos for mean field models. *Ann. Inst. H. Poincaré Probab. Statist.*, 35(1):85–102, 1999.

- [373] Florent Benaych-Georges and Ofer Zeitouni. Eigenvectors of non normal random matrices. *Electron. Commun. Probab.*, 23:Paper No. 70, 12, 2018.
- [374] G. Benfatto, M. Cassandro, G. Gallavotti, F. Nicolò, E. Olivieri, E. Presutti, and E. Scaciatelli. Some probabilistic techniques in field theory. *Comm. Math. Phys.*, 59(2):143–166, 1978.
- [375] Karim Benhenni. Approximating integrals of stochastic processes: extensions. *J. Appl. Probab.*, 35(4):843–855, 1998.
- [376] Itai Benjamini and Oded Schramm. KPZ in one dimensional random geometry of multiplicative cascades. *Comm. Math. Phys.*, 289(2):653–662, 2009.
- [377] Itai Benjamini, Ariel Yadin, and Ofer Zeitouni. Maximal arithmetic progressions in random subsets. *Electron. Comm. Probab.*, 12:365–376, 2007.
- [378] Itai Benjamini, Ariel Yadin, and Ofer Zeitouni. Erratum: Maximal arithmetic progressions in random subsets [mr2350574]. *Electron. Commun. Probab.*, 17:no. 18, 1, 2012.
- [379] Itai Benjamini and Ofer Zeitouni. Tightness of fluctuations of first passage percolation on some large graphs. In *Geometric aspects of functional analysis*, volume 2050 of *Lecture Notes in Math.*, pages 127–132. Springer, Heidelberg, 2012.
- [380] Jonathan Bennett, Neal Bez, and Anthony Carbery. Heat-flow monotonicity related to the Hausdorff-Young inequality. *Bull. Lond. Math. Soc.*, 41(6):971–979, 2009.
- [381] Jonathan Bennett, Anthony Carbery, Michael Christ, and Terence Tao. The Brascamp-Lieb inequalities: finiteness, structure and extremals. *Geom. Funct. Anal.*, 17(5):1343–1415, 2008.
- [382] Jonathan Bennett, Anthony Carbery, Michael Christ, and Terence Tao. Finite bounds for Hölder-Brascamp-Lieb multilinear inequalities. *Math. Res. Lett.*, 17(4):647–666, 2010.
- [383] Deborah J. Bennett. *Randomness*. Harvard University Press, Cambridge, MA, 1998.
- [384] Bernard Bercu, Ivan Nourdin, and Murad S. Taqqu. Almost sure central limit theorems on the Wiener space. *Stochastic Process. Appl.*, 120(9):1607–1628, 2010.
- [385] Julien Berestycki, Éric Brunet, Cole Graham, Leonid Mytnik, Jean-Michel Roquejoffre, and Lenya Ryzhik. The distance between the two BBM leaders. *Nonlinearity*, 35(4):1558–1609, 2022.
- [386] J. Berestycki, L. Döring, L. Mytnik, and L. Zambotti. On exceptional times for generalized Fleming-Viot processes with mutations. *Stoch. Partial Differ. Equ. Anal. Comput.*, 2(1):84–120, 2014.
- [387] J. Berestycki, L. Döring, L. Mytnik, and L. Zambotti. Hitting properties and non-uniqueness for SDEs driven by stable processes. *Stochastic Process. Appl.*, 125(3):918–940, 2015.
- [388] Nathanaël Berestycki, Oded Schramm, and Ofer Zeitouni. Mixing times for random  $k$ -cycles and coalescence-fragmentation chains. *Ann. Probab.*, 39(5):1815–1843, 2011.
- [389] Elena Beretta, Michiel Bertsch, and Roberta Dal Passo. Nonnegative solutions of a fourth-order nonlinear degenerate parabolic equation. *Arch. Rational Mech. Anal.*, 129(2):175–200, 1995.
- [390] Roman Berezin and Leonid Mytnik. Asymptotic behaviour of the critical value for the contact process with rapid stirring. *J. Theoret. Probab.*, 27(3):1045–1057, 2014.
- [391] Christian Berg, Robert C. Dalang, and Alain Valette. Foreword [Memorial issue in honour of S. D. Chatterji (1935–2017)]. *Expo. Math.*, 36(3-4):229–230, 2018.

- [392] V. Bergelson, M. Boshernitzan, and J. Bourgain. Some results on nonlinear recurrence. *J. Anal. Math.*, 62:29–46, 1994.
- [393] Quentin Berger, Francesco Caravenna, Julien Poisat, Rongfeng Sun, and Nikos Zygouras. The critical curves of the random pinning and copolymer models at weak coupling. *Comm. Math. Phys.*, 326(2):507–530, 2014.
- [394] Quentin Berger and Hubert Lacoin. The effect of disorder on the free-energy for the random walk pinning model: smoothing of the phase transition and low temperature asymptotics. *J. Stat. Phys.*, 142(2):322–341, 2011.
- [395] Marc A. Berger and Victor J. Mizel. Volterra equations with Itô integrals. II. *J. Integral Equations*, 2(4):319–337, 1980.
- [396] Quentin Berger and Fabio Lucio Toninelli. On the critical point of the random walk pinning model in dimension  $d = 3$ . *Electron. J. Probab.*, 15:no. 21, 654–683, 2010.
- [397] Noam Berger and Ofer Zeitouni. A quenched invariance principle for certain ballistic random walks in i.i.d. environments. In *In and out of equilibrium. 2*, volume 60 of *Progr. Probab.*, pages 137–160. Birkhäuser, Basel, 2008.
- [398] Jöran Bergh and Jörgen Löfström. *Interpolation spaces. An introduction*. Grundlehren der Mathematischen Wissenschaften, No. 223. Springer-Verlag, Berlin-New York, 1976.
- [399] I. Berkes, X. Chen, and L. Horváth. Central limit theorems for logarithmic averages. *Studia Sci. Math. Hungar.*, 38:79–96, 2001.
- [400] István Berkes, Lajos Horváth, and Davar Khoshnevisan. Logarithmic averages of stable random variables are asymptotically normal. *Stochastic Process. Appl.*, 77(1):35–51, 1998.
- [401] Earl Berkson, Jean Bourgain, Aleksander Pełczyński, and Michał Wojciechowski. Canonical Sobolev projections of weak type  $(1, 1)$ . *Mem. Amer. Math. Soc.*, 150(714):viii+75, 2001.
- [402] Earl Berkson, Jean Bourgain, and T. A. Gillespie. On the almost everywhere convergence of ergodic averages for power-bounded operators on  $L^p$ -subspaces. *Integral Equations Operator Theory*, 14(5):678–715, 1991.
- [403] Simeon M. Berman. An asymptotic bound for the tail of the distribution of the maximum of a Gaussian process. *Ann. Inst. H. Poincaré Probab. Statist.*, 21(1):47–57, 1985.
- [404] Simeon M. Berman. An asymptotic formula for the distribution of the maximum of a Gaussian process with stationary increments. *J. Appl. Probab.*, 22(2):454–460, 1985.
- [405] Pierre Bernard and David Nualart. Régularité  $C^\infty$  des noyaux de Wiener d’une diffusion. *Ann. Inst. H. Poincaré Probab. Statist.*, 26(2):287–297, 1990.
- [406] Olivier Bernardi and Mireille Bousquet-Mélou. Counting colored planar maps: algebraicity results. *J. Combin. Theory Ser. B*, 101(5):315–377, 2011.
- [407] Olivier Bernardi, Bertrand Duplantier, and Philippe Nadeau. A bijection between well-labelled positive paths and matchings. *Sém. Lothar. Combin.*, 63:Art. B63e, 13, 2010.
- [408] Francisco Bernis, Josephus Hulshof, and Juan Luis Vázquez. A very singular solution for the dual porous medium equation and the asymptotic behaviour of general solutions. *J. Reine Angew. Math.*, 435:1–31, 1993.
- [409] Andrew J. Bernoff and Andrea L. Bertozzi. Singularities in a modified Kuramoto-Sivashinsky equation describing interface motion for phase transition. *Phys. D*, 85(3):375–404, 1995.
- [410] S. Bernstein. Sur la nature analytique des solutions des équations aux dérivées partielles du second ordre. *Math. Ann.*, 59(1-2):20–76, 1904.

- [411] Serge Bernstein. Sur la généralisation du problème de Dirichlet. *Math. Ann.*, 69(1):82–136, 1910.
- [412] Violetta Bernyk, Robert C. Dalang, and Goran Peskir. The law of the supremum of a stable Lévy process with no negative jumps. *Ann. Probab.*, 36(5):1777–1789, 2008.
- [413] Violetta Bernyk, Robert C. Dalang, and Goran Peskir. Predicting the ultimate supremum of a stable Lévy process with no negative jumps. *Ann. Probab.*, 39(6):2385–2423, 2011.
- [414] M. V. Berry and C. J. Howls. Integrals with coalescing saddles. In *NIST handbook of mathematical functions*, pages 775–793. U.S. Dept. Commerce, Washington, DC, 2010.
- [415] James G. Berryman and Charles J. Holland. Stability of the separable solution for fast diffusion. *Arch. Rational Mech. Anal.*, 74(4):379–388, 1980.
- [416] L. Bertini, N. Cancrini, and G. Jona-Lasinio. The stochastic Burgers equation. *Comm. Math. Phys.*, 165(2):211–232, 1994.
- [417] Lorenzo Bertini and Nicoletta Cancrini. The stochastic heat equation: Feynman-Kac formula and intermittence. *J. Statist. Phys.*, 78(5-6):1377–1401, 1995.
- [418] Lorenzo Bertini and Nicoletta Cancrini. The two-dimensional stochastic heat equation: renormalizing a multiplicative noise. *J. Phys. A*, 31(2):615–622, 1998.
- [419] Lorenzo Bertini and Giambattista Giacomin. Stochastic Burgers and KPZ equations from particle systems. *Comm. Math. Phys.*, 183(3):571–607, 1997.
- [420] Lorenzo Bertini and Giambattista Giacomin. On the long-time behavior of the stochastic heat equation. *Probab. Theory Related Fields*, 114(3):279–289, 1999.
- [421] L. Bertini, C. Landim, and S. Olla. Derivation of Cahn-Hilliard equations from Ginzburg-Landau models. *J. Statist. Phys.*, 88(1-2):365–381, 1997.
- [422] Jean Bertoin. *Lévy processes*, volume 121 of *Cambridge Tracts in Mathematics*. Cambridge University Press, Cambridge, 1996.
- [423] M. Bertola. Two-matrix models and biorthogonal polynomials. In *The Oxford handbook of random matrix theory*, pages 310–328. Oxford Univ. Press, Oxford, 2011.
- [424] Andrea L. Bertozzi. Symmetric singularity formation in lubrication-type equations for interface motion. *SIAM J. Appl. Math.*, 56(3):681–714, 1996.
- [425] Michiel Bertsch and Paolo Bisegna. Blow-up of solutions of a nonlinear parabolic equation in damage mechanics. *European J. Appl. Math.*, 8(1):89–123, 1997.
- [426] M. Bertsch, R. Dal Passo, and R. Kersner. Parameter dependence in the  $b$ - $\epsilon$  model. *Differential Integral Equations*, 7(5-6):1195–1214, 1994.
- [427] M. Besalú, A. Kohatsu-Higa, and S. Tindel. Gaussian-type lower bounds for the density of solutions of SDEs driven by fractional Brownian motions. *Ann. Probab.*, 44(1):399–443, 2016.
- [428] Mireia Besalú, David Márquez-Carreras, and Eulalia Nualart. Existence and smoothness of the density of the solution to fractional stochastic integral Volterra equations. *Stochastics*, 93(4):528–554, 2021.
- [429] Mireia Besalú and David Nualart. Estimates for the solution to stochastic differential equations driven by a fractional Brownian motion with Hurst parameter  $H \in (\frac{1}{3}, \frac{1}{2})$ . *Stoch. Dyn.*, 11(2-3):243–263, 2011.

- [430] Fabrice Bethuel, Jean Bourgain, Haïm Brezis, and Giandomenico Orlandi.  $W^{1,p}$  estimates for solutions to the Ginzburg-Landau equation with boundary data in  $H^{1/2}$ . *C. R. Acad. Sci. Paris Sér. I Math.*, 333(12):1069–1076, 2001.
- [431] Arne Beurling. On the spectral synthesis of bounded functions. *Acta Math.*, 81:225–238, 1948.
- [432] Pavel Bezdek. On weak convergence of stochastic heat equation with colored noise. *Stochastic Process. Appl.*, 126(9):2860–2875, 2016.
- [433] Pavel Bezdek. Existence and blow-up of solutions to the fractional stochastic heat equations. *Stoch. Partial Differ. Equ. Anal. Comput.*, 6(1):73–108, 2018.
- [434] Sérgio Bezerra, Samy Tindel, and Frederi Viens. Superdiffusivity for a Brownian polymer in a continuous Gaussian environment. *Ann. Probab.*, 36(5):1642–1675, 2008.
- [435] Sérgio de Carvalho Bezerra and Samy Tindel. A central limit theorem for a localized version of the SK model. *Potential Anal.*, 26(4):323–343, 2007.
- [436] Francesca Biagini, Yaozhong Hu, Bernt Øksendal, and Agnès Sulem. A stochastic maximum principle for processes driven by fractional Brownian motion. *Stochastic Process. Appl.*, 100:233–253, 2002.
- [437] Francesca Biagini, Yaozhong Hu, Bernt Øksendal, and Tusheng Zhang. *Stochastic calculus for fractional Brownian motion and applications*. Probability and its Applications (New York). Springer-Verlag London, Ltd., London, 2008.
- [438] Francesca Biagini, Yaozhong Hu, Thilo Meyer-Brandis, and Bernt Øksendal. Insider trading equilibrium in a market with memory. *Math. Financ. Econ.*, 6(3):229–247, 2012.
- [439] Hermine Biermé, Aline Bonami, Ivan Nourdin, and Giovanni Peccati. Optimal Berry-Esseen rates on the Wiener space: the barrier of third and fourth cumulants. *ALEA Lat. Am. J. Probab. Math. Stat.*, 9(2):473–500, 2012.
- [440] J. D. Biggins and A. E. Kyprianou. Measure change in multitype branching. *Adv. in Appl. Probab.*, 36(2):544–581, 2004.
- [441] J. D. Biggins and A. E. Kyprianou. Fixed points of the smoothing transform: the boundary case. *Electron. J. Probab.*, 10:no. 17, 609–631, 2005.
- [442] I. Bihari. A generalization of a lemma of Bellman and its application to uniqueness problems of differential equations. *Acta Math. Acad. Sci. Hungar.*, 7:81–94, 1956.
- [443] Patrick Billingsley. *Probability and measure*. Wiley Series in Probability and Mathematical Statistics. John Wiley & Sons, Inc., New York, third edition, 1995. A Wiley-Interscience Publication.
- [444] Patrick Billingsley. *Convergence of probability measures*. Wiley Series in Probability and Statistics: Probability and Statistics. John Wiley & Sons, Inc., New York, second edition, 1999. A Wiley-Interscience Publication.
- [445] N. H. Bingham, C. M. Goldie, and J. L. Teugels. *Regular variation*, volume 27 of *Encyclopedia of Mathematics and its Applications*. Cambridge University Press, Cambridge, 1989.
- [446] Tran Thanh Binh, Nguyen Huy Tuan, and Tran Bao Ngoc. Hölder continuity of mild solutions of space-time fractional stochastic heat equation driven by colored noise. *Eur. Phys. J. Plus*, 136(9):935, Sep 2021.
- [447] Giulia Binotto, Ivan Nourdin, and David Nualart. Weak symmetric integrals with respect to the fractional Brownian motion. *Ann. Probab.*, 46(4):2243–2267, 2018.



- [448] Matthias Birkner, Andreas Greven, and Frank den Hollander. Collision local time of transient random walks and intermediate phases in interacting stochastic systems. *Electron. J. Probab.*, 16:no. 20, 552–586, 2011.
- [449] Matthias Birkner and Rongfeng Sun. Annealed vs quenched critical points for a random walk pinning model. *Ann. Inst. Henri Poincaré Probab. Stat.*, 46(2):414–441, 2010.
- [450] Matthias Birkner and Rongfeng Sun. Disorder relevance for the random walk pinning model in dimension 3. *Ann. Inst. Henri Poincaré Probab. Stat.*, 47(1):259–293, 2011.
- [451] Matthias Birkner. A condition for weak disorder for directed polymers in random environment. *Electron. Comm. Probab.*, 9:22–25, 2004.
- [452] M. Š. Birman and G. E. Skvorcov. On square summability of highest derivatives of the solution of the Dirichlet problem in a domain with piecewise smooth boundary. *Izv. Vysš. Učebn. Zaved. Matematika*, 1962(5 (30)):11–21, 1962.
- [453] Marek Biskup and Wolfgang König. Long-time tails in the parabolic Anderson model with bounded potential. *Ann. Probab.*, 29(2):636–682, 2001.
- [454] Parbati Biswas and Binny J. Cherayil. Dynamics of fractional brownian walks. *J. Phys. Chem.*, 99(2):816–821, 1995.
- [455] Harry Björk. Table errata: it Handbook of mathematical functions with formulas, graphs, and mathematical tables (Nat. Bur. Standards, Washington, D. C., 1964) edited by Milton Abramowitz and Irene A. Stegun. *Math. Comp.*, 23(107):691, 1969.
- [456] P. Bleher and J. Bourgain. Distribution of the error term for the number of lattice points inside a shifted ball. In *Analytic number theory, Vol. 1 (Allerton Park, IL, 1995)*, volume 138 of *Progr. Math.*, pages 141–153. Birkhäuser Boston, Boston, MA, 1996.
- [457] Pavel Bleher and Karl Liechty. *Random matrices and the six-vertex model*, volume 32 of *CRM Monograph Series*. American Mathematical Society, Providence, RI, 2014.
- [458] Valentin Blomer, Jean Bourgain, Maksym Radziwiłł, and Zeév Rudnick. Small gaps in the spectrum of the rectangular billiard. *Ann. Sci. Éc. Norm. Supér. (4)*, 50(5):1283–1300, 2017.
- [459] Dirk Blömker, Giuseppe Cannizzaro, and Marco Romito. Random initial conditions for semi-linear PDEs. *Proc. Roy. Soc. Edinburgh Sect. A*, 150(3):1533–1565, 2020.
- [460] D. Blömker, M. Hairer, and G. A. Pavliotis. Modulation equations: stochastic bifurcation in large domains. *Comm. Math. Phys.*, 258(2):479–512, 2005.
- [461] D. Blömker, M. Hairer, and G. A. Pavliotis. Multiscale analysis for stochastic partial differential equations with quadratic nonlinearities. *Nonlinearity*, 20(7):1721–1744, 2007.
- [462] Dirk Blömker, Martin Hairer, and Grigorios A. Pavliotis. Some remarks on stabilization by additive noise. In *Stochastic partial differential equations and applications*, volume 25 of *Quad. Mat.*, pages 37–50. Dept. Math., Seconda Univ. Napoli, Caserta, 2010.
- [463] Dirk Blömker and Martin Hairer. Multiscale expansion of invariant measures for SPDEs. *Comm. Math. Phys.*, 251(3):515–555, 2004.
- [464] Dirk Blömker and Martin Hairer. Amplitude equations for SPDEs: approximate centre manifolds and invariant measures. In *Probability and partial differential equations in modern applied mathematics*, volume 140 of *IMA Vol. Math. Appl.*, pages 41–59. Springer, New York, 2005.
- [465] R. M. Blumenthal and R. K. Gettoor. Some theorems on stable processes. *Trans. Amer. Math. Soc.*, 95:263–273, 1960.

- [466] R. M. Blumenthal and R. K. Gettoor. *Markov processes and potential theory*. Pure and Applied Mathematics, Vol. 29. Academic Press, New York-London, 1968.
- [467] S. Blunck and L. Weis. Operator theoretic properties of semigroups in terms of their generators. *Studia Math.*, 146(1):35–54, 2001.
- [468] Lijun Bo and Tusheng Zhang. Large deviations for perturbed reflected diffusion processes. *Stochastics*, 81(6):531–543, 2009.
- [469] S. G. Bobkov, F. Götze, and A. N. Tikhomirov. On concentration of empirical measures and convergence to the semi-circle law. *J. Theoret. Probab.*, 23(3):792–823, 2010.
- [470] S. G. Bobkov and F. Götze. Exponential integrability and transportation cost related to logarithmic Sobolev inequalities. *J. Funct. Anal.*, 163(1):1–28, 1999.
- [471] Sergey G. Bobkov and Christian Houdré. Weak dimension-free concentration of measure. *Bernoulli*, 6(4):621–632, 2000.
- [472] Sergey Bobkov and Mokshay Madiman. Concentration of the information in data with log-concave distributions. *Ann. Probab.*, 39(4):1528–1543, 2011.
- [473] Ben Zion Bobrovsky, Moshe M. Zakai, and Ofer Zeitouni. Error bounds for the nonlinear filtering of signals with small diffusion coefficients. *IEEE Trans. Inform. Theory*, 34(4):710–721, 1988.
- [474] Ben Zion Bobrovsky and Ofer Zeitouni. Some results on the problem of exit from a domain. *Stochastic Process. Appl.*, 41(2):241–256, 1992.
- [475] Wolfgang Bock, Jinky B. Bornales, Cresente O. Cabahug, Samuel Eleutério, and Ludwig Streit. Scaling properties of weakly self-avoiding fractional Brownian motion in one dimension. *J. Stat. Phys.*, 161(5):1155–1162, 2015.
- [476] V. I. Bogachev, E. D. Kosov, I. Nourdin, and G. Poly. Two properties of vectors of quadratic forms in Gaussian random variables. *Theory Probab. Appl.*, 59(2):208–221, 2015.
- [477] V. I. Bogachev. *Measure theory. Vol. I, II*. Springer-Verlag, Berlin, 2007.
- [478] Vladimir I. Bogachev. *Gaussian measures*, volume 62 of *Mathematical Surveys and Monographs*. American Mathematical Society, Providence, RI, 1998.
- [479] O. Bohigas and H. A. Weidenmüller. History—an overview. In *The Oxford handbook of random matrix theory*, pages 15–39. Oxford Univ. Press, Oxford, 2011.
- [480] Tomasz Bojdecki, Luis G. Gorostiza, and David Nualart. Time-localization of random distributions on Wiener space. *Potential Anal.*, 6(2):183–205, 1997.
- [481] Raul Bolaños Guerrero, David Nualart, and Guangqu Zheng. Averaging 2d stochastic wave equation. *Electron. J. Probab.*, 26:Paper No. 102, 32, 2021.
- [482] Erwin Bolthausen, Francesco Caravenna, and Béatrice de Tilière. The quenched critical point of a diluted disordered polymer model. *Stochastic Process. Appl.*, 119(5):1479–1504, 2009.
- [483] Erwin Bolthausen, Jean Dominique Deuschel, and Ofer Zeitouni. Absence of a wetting transition for a pinned harmonic crystal in dimensions three and larger. volume 41, pages 1211–1223. 2000. Probabilistic techniques in equilibrium and nonequilibrium statistical physics.
- [484] Erwin Bolthausen, Jean-Dominique Deuschel, and Ofer Zeitouni. Erratum: “Entropic repulsion of the lattice free field” [Comm. Math. Phys. **170** (1995), no. 2, 417–443; MR1334403 (96g:82012)]. *Comm. Math. Phys.*, 209(2):547–548, 2000.

- [485] Erwin Bolthausen, Jean-Dominique Deuschel, and Giambattista Giacomini. Entropic repulsion and the maximum of the two-dimensional harmonic crystal. *Ann. Probab.*, 29(4):1670–1692, 2001.
- [486] Erwin Bolthausen, Jean Dominique Deuschel, and Ofer Zeitouni. Recursions and tightness for the maximum of the discrete, two dimensional Gaussian free field. *Electron. Commun. Probab.*, 16:114–119, 2011.
- [487] Erwin Bolthausen, Jean-Dominique Deuschel, and Ofer Zeitouni. Entropic repulsion of the lattice free field. *Comm. Math. Phys.*, 170(2):417–443, 1995.
- [488] Erwin Bolthausen and Dmitry Ioffe. Harmonic crystal on the wall: a microscopic approach. *Comm. Math. Phys.*, 187(3):523–566, 1997.
- [489] Erwin Bolthausen, Alain-Sol Sznitman, and Ofer Zeitouni. Cut points and diffusive random walks in random environment. *Ann. Inst. H. Poincaré Probab. Statist.*, 39(3):527–555, 2003.
- [490] E. Bolthausen and A.-S. Sznitman. On Ruelle’s probability cascades and an abstract cavity method. *Comm. Math. Phys.*, 197(2):247–276, 1998.
- [491] Erwin Bolthausen and Ofer Zeitouni. Multiscale analysis of exit distributions for random walks in random environments. *Probab. Theory Related Fields*, 138(3-4):581–645, 2007.
- [492] Erwin Bolthausen. A note on the diffusion of directed polymers in a random environment. *Comm. Math. Phys.*, 123(4):529–534, 1989.
- [493] Erwin Bolthausen. On self-repellent one-dimensional random walks. *Probab. Theory Related Fields*, 86(4):423–441, 1990.
- [494] Erwin Bolthausen. On the construction of the three-dimensional polymer measure. *Probab. Theory Related Fields*, 97(1-2):81–101, 1993.
- [495] E. Bombieri, J. Bourgain, and S. V. Konyagin. Roots of polynomials in subgroups of  $F_p^*$  and applications to congruences. *Int. Math. Res. Not. IMRN*, (5):802–834, 2009.
- [496] E. Bombieri and J. Bourgain. A remark on Bohr’s inequality. *Int. Math. Res. Not.*, (80):4307–4330, 2004.
- [497] Enrico Bombieri and Jean Bourgain. On Kahane’s ultraflat polynomials. *J. Eur. Math. Soc. (JEMS)*, 11(3):627–703, 2009.
- [498] Enrico Bombieri and Jean Bourgain. A problem on sums of two squares. *Int. Math. Res. Not. IMRN*, (11):3343–3407, 2015.
- [499] J. L. Bona and J.-C. Saut. Dispersive blowup of solutions of generalized Korteweg-de Vries equations. *J. Differential Equations*, 103(1):3–57, 1993.
- [500] Stefano Bonaccorsi and Marco Fantozzi. Large deviation principle for semilinear stochastic Volterra equations. *Dynam. Systems Appl.*, 13(2):203–219, 2004.
- [501] Julian Fernández Bonder, Pablo Groisman, and Julio D. Rossi. Continuity of the explosion time in stochastic differential equations. *Stoch. Anal. Appl.*, 27(5):984–999, 2009.
- [502] Julian Bonder. Time-space tensor structure of adjoint fields of gas magnetodynamics. In *Differential geometry and continuum mechanics (Proc. Conf., Jablonna. 1970) (Polish)*, pages 32–65, 1974.
- [503] E. Bonet and D. Nualart. Interpolation and forecasting in Poisson’s processes. *Stochastica*, 2(3):36–40, 1977.

- [504] Martin Borecki and Francesco Caravenna. Localization for  $(1+1)$ -dimensional pinning models with  $(\nabla + \Delta)$ -interaction. *Electron. Commun. Probab.*, 15:534–548, 2010.
- [505] Christer Borell. Diffusion equations and geometric inequalities. *Potential Anal.*, 12(1):49–71, 2000.
- [506] Christer Borell. The Brunn-Minkowski inequality in Gauss space. *Invent. Math.*, 30(2):207–216, 1975.
- [507] V. S. Borkar, R. T. Chari, and S. K. Mitter. Stochastic quantization of field theory in finite and infinite volume. *J. Funct. Anal.*, 81(1):184–206, 1988.
- [508] Jinky Bornales, Maria João Oliveira, and Ludwig Streit. Self-repelling fractional Brownian motion—a generalized Edwards model for chain polymers. In *Quantum bio-informatics V*, volume 30 of *QP-PQ: Quantum Probab. White Noise Anal.*, pages 389–401. World Sci. Publ., Hackensack, NJ, 2013.
- [509] Alexei Borodin, Alexey Bufetov, and Ivan Corwin. Directed random polymers via nested contour integrals. *Ann. Physics*, 368:191–247, 2016.
- [510] Alexei Borodin, Ivan Corwin, and Daniel Remenik. Log-gamma polymer free energy fluctuations via a Fredholm determinant identity. *Comm. Math. Phys.*, 324(1):215–232, 2013.
- [511] Alexei Borodin, Ivan Corwin, and Patrik Ferrari. Free energy fluctuations for directed polymers in random media in  $1 + 1$  dimension. *Comm. Pure Appl. Math.*, 67(7):1129–1214, 2014.
- [512] Alexei Borodin, Ivan Corwin, and Tomohiro Sasamoto. From duality to determinants for  $q$ -TASEP and ASEP. *Ann. Probab.*, 42(6):2314–2382, 2014.
- [513] Alexei Borodin, Ivan Corwin, and Daniel Remenik. A classical limit of Noumi’s  $q$ -integral operator. *SIGMA Symmetry Integrability Geom. Methods Appl.*, 11:Paper 098, 7, 2015.
- [514] Alexei Borodin, Ivan Corwin, Patrik Ferrari, and Bálint Vető. Height fluctuations for the stationary KPZ equation. *Math. Phys. Anal. Geom.*, 18(1):Art. 20, 95, 2015.
- [515] Alexei Borodin, Ivan Corwin, and Daniel Remenik. Multiplicative functionals on ensembles of non-intersecting paths. *Ann. Inst. Henri Poincaré Probab. Stat.*, 51(1):28–58, 2015.
- [516] Alexei Borodin, Ivan Corwin, Leonid Petrov, and Tomohiro Sasamoto. Spectral theory for the  $q$ -Boson particle system. *Compos. Math.*, 151(1):1–67, 2015.
- [517] Alexei Borodin, Ivan Corwin, Leonid Petrov, and Tomohiro Sasamoto. Spectral theory for interacting particle systems solvable by coordinate Bethe ansatz. *Comm. Math. Phys.*, 339(3):1167–1245, 2015.
- [518] Alexei Borodin, Ivan Corwin, Vadim Gorin, and Shamil Shakirov. Observables of Macdonald processes. *Trans. Amer. Math. Soc.*, 368(3):1517–1558, 2016.
- [519] Alexei Borodin, Ivan Corwin, and Vadim Gorin. Stochastic six-vertex model. *Duke Math. J.*, 165(3):563–624, 2016.
- [520] Alexei Borodin, Ivan Corwin, and Fabio Lucio Toninelli. Stochastic heat equation limit of a  $(2 + 1)$ d growth model. *Comm. Math. Phys.*, 350(3):957–984, 2017.
- [521] Alexei Borodin, Ivan Corwin, and Patrik L. Ferrari. Anisotropic  $(2+1)$ d growth and Gaussian limits of  $q$ -Whittaker processes. *Probab. Theory Related Fields*, 172(1-2):245–321, 2018.
- [522] Alexei Borodin, Ivan Corwin, Leonid Petrov, and Tomohiro Sasamoto. Correction to: Spectral theory for interacting particle systems solvable by coordinate Bethe ansatz. *Comm. Math. Phys.*, 370(3):1069–1072, 2019.

- [523] Alexei Borodin, Ivan Corwin, Patrik Ferrari, and Bálint Vető. Correction to: Height fluctuations for the stationary KPZ equation. *Math. Phys. Anal. Geom.*, 24(2):Paper No. 15, 4, 2021.
- [524] Alexei Borodin and Ivan Corwin. Macdonald processes. *Probab. Theory Related Fields*, 158(1-2):225–400, 2014.
- [525] A. Borodin and I. Corwin. Macdonald processes. In *XVIIth International Congress on Mathematical Physics*, pages 292–316. World Sci. Publ., Hackensack, NJ, 2014.
- [526] Alexei Borodin and Ivan Corwin. Moments and Lyapunov exponents for the parabolic Anderson model. *Ann. Appl. Probab.*, 24(3):1172–1198, 2014.
- [527] Alexei Borodin and Ivan Corwin. Discrete time  $q$ -TASEPs. *Int. Math. Res. Not. IMRN*, (2):499–537, 2015.
- [528] Alexei Borodin and Ivan Corwin. Dynamic ASEP, duality, and continuous  $q^{-1}$ -Hermite polynomials. *Int. Math. Res. Not. IMRN*, (3):641–668, 2020.
- [529] Alexei Borodin and Percy Deift. Fredholm determinants, Jimbo-Miwa-Ueno  $\tau$ -functions, and representation theory. *Comm. Pure Appl. Math.*, 55(9):1160–1230, 2002.
- [530] Alexei Borodin and Patrik L. Ferrari. Large time asymptotics of growth models on space-like paths. I. PushASEP. *Electron. J. Probab.*, 13:no. 50, 1380–1418, 2008.
- [531] Alexei Borodin and Vadim Gorin. Lectures on integrable probability. In *Probability and statistical physics in St. Petersburg*, volume 91 of *Proc. Sympos. Pure Math.*, pages 155–214. Amer. Math. Soc., Providence, RI, 2016.
- [532] Alexei Borodin and Vadim Gorin. Moments match between the KPZ equation and the Airy point process. *SIGMA Symmetry Integrability Geom. Methods Appl.*, 12:Paper No. 102, 7, 2016.
- [533] Alexei Borodin, Andrei Okounkov, and Grigori Olshanski. Asymptotics of Plancherel measures for symmetric groups. *J. Amer. Math. Soc.*, 13(3):481–515, 2000.
- [534] Andrei N. Borodin and Paavo Salminen. *Handbook of Brownian motion—facts and formulae*. Probability and its Applications. Birkhäuser Verlag, Basel, second edition, 2002.
- [535] Alexei Borodin. Determinantal point processes. In *The Oxford handbook of random matrix theory*, pages 231–249. Oxford Univ. Press, Oxford, 2011.
- [536] Thomas Bothner. Transition asymptotics for the Painlevé II transcendent. *Duke Math. J.*, 166(2):205–324, 2017.
- [537] Thomas Bothner. On the origins of Riemann-Hilbert problems in mathematics. *Nonlinearity*, 34(4):R1–R73, 2021.
- [538] N. Bou-Rabee and M. Hairer. Nonasymptotic mixing of the MALA algorithm. *IMA J. Numer. Anal.*, 33(1):80–110, 2013.
- [539] Jean-Philippe Bouchaud and Antoine Georges. Anomalous diffusion in disordered media: statistical mechanisms, models and physical applications. *Phys. Rep.*, 195(4-5):127–293, 1990.
- [540] Jean-Philippe Bouchaud and Marc Potters. Financial applications of random matrix theory: a short review. In *The Oxford handbook of random matrix theory*, pages 824–850. Oxford Univ. Press, Oxford, 2011.
- [541] Stéphane Boucheron, Gábor Lugosi, and Pascal Massart. *Concentration inequalities*. Oxford University Press, Oxford, 2013. A nonasymptotic theory of independence, With a foreword by Michel Ledoux.

- [542] Michelle Boué and Paul Dupuis. A variational representation for certain functionals of Brownian motion. *Ann. Probab.*, 26(4):1641–1659, 1998.
- [543] Brahim Boufoussi and Salah Hajji. Transportation inequalities for stochastic heat equations. *Statist. Probab. Lett.*, 139:75–83, 2018.
- [544] Nicolas Bouleau and Francis Hirsch. Propriétés d’absolue continuité dans les espaces de Dirichlet et application aux équations différentielles stochastiques. In *Séminaire de Probabilités, XX, 1984/85*, volume 1204 of *Lecture Notes in Math.*, pages 131–161. Springer, Berlin, 1986.
- [545] Nicolas Bouleau and Francis Hirsch. *Dirichlet forms and analysis on Wiener space*, volume 14 of *De Gruyter Studies in Mathematics*. Walter de Gruyter & Co., Berlin, 1991.
- [546] Jean Bourgain and Eric Bourgain-Chang. A note on Lyapunov exponents of deterministic strongly mixing potentials. *J. Spectr. Theory*, 5(1):1–15, 2015.
- [547] Jean Bourgain, Haim Brezis, and Petru Mironescu. Lifting in Sobolev spaces. *J. Anal. Math.*, 80:37–86, 2000.
- [548] Jean Bourgain, Haïm Brezis, and Petru Mironescu. On the structure of the Sobolev space  $H^{1/2}$  with values into the circle. *C. R. Acad. Sci. Paris Sér. I Math.*, 331(2):119–124, 2000.
- [549] Jean Bourgain, Haim Brezis, and Petru Mironescu. Another look at Sobolev spaces. In *Optimal control and partial differential equations*, pages 439–455. IOS, Amsterdam, 2001.
- [550] Jean Bourgain, Haïm Brezis, and Petru Mironescu. Limiting embedding theorems for  $W^{s,p}$  when *suparrow*1 and applications. volume 87, pages 77–101. 2002. Dedicated to the memory of Thomas H. Wolff.
- [551] Jean Bourgain, Haim Brezis, and Petru Mironescu.  $H^{1/2}$  maps with values into the circle: minimal connections, lifting, and the Ginzburg-Landau equation. *Publ. Math. Inst. Hautes Études Sci.*, (99):1–115, 2004.
- [552] Jean Bourgain, Haïm Brezis, and Petru Mironescu. Lifting, degree, and distributional Jacobian revisited. *Comm. Pure Appl. Math.*, 58(4):529–551, 2005.
- [553] Jean Bourgain, Haïm Brezis, and Hoai-Minh Nguyen. A new estimate for the topological degree. *C. R. Math. Acad. Sci. Paris*, 340(11):787–791, 2005.
- [554] Jean Bourgain, Haim Brezis, and Petru Mironescu. A new function space and applications. *J. Eur. Math. Soc. (JEMS)*, 17(9):2083–2101, 2015.
- [555] Jean Bourgain and Haïm Brezis. Sur l’équation  $\operatorname{div} u = f$ . *C. R. Math. Acad. Sci. Paris*, 334(11):973–976, 2002.
- [556] Jean Bourgain and Haïm Brezis. On the equation  $\operatorname{div} Y = f$  and application to control of phases. *J. Amer. Math. Soc.*, 16(2):393–426, 2003.
- [557] Jean Bourgain and Haïm Brezis. New estimates for the Laplacian, the div-curl, and related Hodge systems. *C. R. Math. Acad. Sci. Paris*, 338(7):539–543, 2004.
- [558] Jean Bourgain and Haïm Brezis. New estimates for elliptic equations and Hodge type systems. *J. Eur. Math. Soc. (JEMS)*, 9(2):277–315, 2007.
- [559] Jean Bourgain and Aynur Bulut. Gibbs measure evolution in radial nonlinear wave and Schrödinger equations on the ball. *C. R. Math. Acad. Sci. Paris*, 350(11-12):571–575, 2012.
- [560] Jean Bourgain and Aynur Bulut. Almost sure global well posedness for the radial nonlinear Schrödinger equation on the unit ball I: the 2D case. *Ann. Inst. H. Poincaré C Anal. Non Linéaire*, 31(6):1267–1288, 2014.

- [561] Jean Bourgain and Aynur Bulut. Almost sure global well-posedness for the radial nonlinear Schrödinger equation on the unit ball II: the 3d case. *J. Eur. Math. Soc. (JEMS)*, 16(6):1289–1325, 2014.
- [562] Jean Bourgain and Aynur Bulut. Invariant Gibbs measure evolution for the radial nonlinear wave equation on the 3d ball. *J. Funct. Anal.*, 266(4):2319–2340, 2014.
- [563] Jean Bourgain, Nicolas Burq, and Maciej Zworski. Control for Schrödinger operators on 2-tori: rough potentials. *J. Eur. Math. Soc. (JEMS)*, 15(5):1597–1628, 2013.
- [564] J. Bourgain, P. G. Casazza, J. Lindenstrauss, and L. Tzafriri. Banach spaces with a unique unconditional basis, up to permutation. *Mem. Amer. Math. Soc.*, 54(322):iv+111, 1985.
- [565] Jean Bourgain and Mei-Chu Chang. On multiple sum and product sets of finite sets of integers. *C. R. Math. Acad. Sci. Paris*, 337(8):499–503, 2003.
- [566] Jean Bourgain and Mei-Chu Chang. On the size of  $k$ -fold sum and product sets of integers. *J. Amer. Math. Soc.*, 17(2):473–497, 2004.
- [567] Jean Bourgain and Mei-Chu Chang. Sum-product theorem and exponential sum estimates in residue classes with modulus involving few prime factors. *C. R. Math. Acad. Sci. Paris*, 339(7):463–466, 2004.
- [568] J. Bourgain and M.-C. Chang. Exponential sum estimates over subgroups and almost subgroups of  $Z_Q^*$ , where  $Q$  is composite with few prime factors. *Geom. Funct. Anal.*, 16(2):327–366, 2006.
- [569] Jean Bourgain and Mei-Chu Chang. A Gauss sum estimate in arbitrary finite fields. *C. R. Math. Acad. Sci. Paris*, 342(9):643–646, 2006.
- [570] Jean Bourgain and Mei-Chu Chang. On the minimum norm of representatives of residue classes in number fields. *Duke Math. J.*, 138(2):263–280, 2007.
- [571] Jean Bourgain and Mei-Chu Chang. Sum-product theorems in algebraic number fields. *J. Anal. Math.*, 109:253–277, 2009.
- [572] Jean Bourgain and Mei-Chu Chang. On a multilinear character sum of Burgess. *C. R. Math. Acad. Sci. Paris*, 348(3-4):115–120, 2010.
- [573] J. Bourgain and M.-C. Chang. Nonlinear Roth type theorems in finite fields. *Israel J. Math.*, 221(2):853–867, 2017.
- [574] J. Bourgain and Mei-Chu Chang. On a paper of Erdős and Szekeres. *J. Anal. Math.*, 136(1):253–271, 2018.
- [575] Jean Bourgain, Laurent Clozel, and Jean-Pierre Kahane. Principe d’Heisenberg et fonctions positives. *Ann. Inst. Fourier (Grenoble)*, 60(4):1215–1232, 2010.
- [576] Jean Bourgain, Todd Cochrane, Jennifer Paulhus, and Christopher Pinner. Decimations of  $l$ -sequences and permutations of even residues mod  $p$ . *SIAM J. Discrete Math.*, 23(2):842–857, 2009.
- [577] Jean Bourgain, Todd Cochrane, Jennifer Paulhus, and Christopher Pinner. On the parity of  $k$ -th powers modulo  $p$ . A generalization of a problem of Lehmer. *Acta Arith.*, 147(2):173–203, 2011.
- [578] J. Bourgain and J. Colliander. On wellposedness of the Zakharov system. *Internat. Math. Res. Notices*, (11):515–546, 1996.
- [579] J. Bourgain and W. J. Davis. Martingale transforms and complex uniform convexity. *Trans. Amer. Math. Soc.*, 294(2):501–515, 1986.

- [580] J. Bourgain and F. Delbaen. Quotient maps onto  $c(K)$ . *Bull. Soc. Math. Belg.*, 30(2):111–119, 1978.
- [581] J. Bourgain and F. Delbaen. A class of special  $\mathcal{L}_{infty}$  spaces. *Acta Math.*, 145(3-4):155–176, 1980.
- [582] Jean Bourgain, Ciprian Demeter, and Larry Guth. Proof of the main conjecture in Vinogradov’s mean value theorem for degrees higher than three. *Ann. of Math. (2)*, 184(2):633–682, 2016.
- [583] Jean Bourgain, Ciprian Demeter, and Shaoming Guo. Sharp bounds for the cubic Parsell-Vinogradov system in two dimensions. *Adv. Math.*, 320:827–875, 2017.
- [584] Jean Bourgain, Ciprian Demeter, and Dominique Kemp. Decouplings for real analytic surfaces of revolution. In *Geometric aspects of functional analysis. Vol. I*, volume 2256 of *Lecture Notes in Math.*, pages 113–125. Springer, Cham, [2020] ©2020.
- [585] Jean Bourgain and Ciprian Demeter. Improved estimates for the discrete Fourier restriction to the higher dimensional sphere. *Illinois J. Math.*, 57(1):213–227, 2013.
- [586] Jean Bourgain and Ciprian Demeter. New bounds for the discrete Fourier restriction to the sphere in 4D and 5D. *Int. Math. Res. Not. IMRN*, (11):3150–3184, 2015.
- [587] Jean Bourgain and Ciprian Demeter. The proof of the  $l^2$  decoupling conjecture. *Ann. of Math. (2)*, 182(1):351–389, 2015.
- [588] Jean Bourgain and Ciprian Demeter. Decouplings for surfaces in  $R^4$ . *J. Funct. Anal.*, 270(4):1299–1318, 2016.
- [589] Jean Bourgain and Ciprian Demeter. Mean value estimates for Weyl sums in two dimensions. *J. Lond. Math. Soc. (2)*, 94(3):814–838, 2016.
- [590] Jean Bourgain and Ciprian Demeter. Decouplings for curves and hypersurfaces with nonzero Gaussian curvature. *J. Anal. Math.*, 133:279–311, 2017.
- [591] Jean Bourgain and Ciprian Demeter. A study guide for the  $l^2$  decoupling theorem. *Chinese Ann. Math. Ser. B*, 38(1):173–200, 2017.
- [592] Jean Bourgain and Ciprian Demeter. Three applications of the Siegel mass formula. In *Geometric aspects of functional analysis. Vol. I*, volume 2256 of *Lecture Notes in Math.*, pages 99–111. Springer, Cham, [2020] ©2020.
- [593] Jean Bourgain and Joe Diestel. Limited operators and strict cosingularity. *Math. Nachr.*, 119:55–58, 1984.
- [594] Jean Bourgain, S. J. Dilworth, Kevin Ford, Sergei V. Konyagin, and Denka Kutzarova. Breaking the  $k^2$  barrier for explicit RIP matrices [extended abstract]. In *STOC’11—Proceedings of the 43rd ACM Symposium on Theory of Computing*, pages 637–644. ACM, New York, 2011.
- [595] Jean Bourgain, Stephen Dilworth, Kevin Ford, Sergei Konyagin, and Denka Kutzarova. Explicit constructions of RIP matrices and related problems. *Duke Math. J.*, 159(1):145–185, 2011.
- [596] Jean Bourgain, Sjoerd Dirksen, and Jelani Nelson. Toward a unified theory of sparse dimensionality reduction in Euclidean space. *Geom. Funct. Anal.*, 25(4):1009–1088, 2015.
- [597] Jean Bourgain, Sjoerd Dirksen, and Jelani Nelson. Toward a unified theory of sparse dimensionality reduction in Euclidean space. In *STOC’15—Proceedings of the 2015 ACM Symposium on Theory of Computing*, pages 499–508. ACM, New York, 2015.



- [598] Jean Bourgain, Zeev Dvir, and Ethan Leeman. Affine extractors over large fields with exponential error. *Comput. Complexity*, 25(4):921–931, 2016.
- [599] Jean Bourgain and Semyon Dyatlov. Fourier dimension and spectral gaps for hyperbolic surfaces. *Geom. Funct. Anal.*, 27(4):744–771, 2017.
- [600] Jean Bourgain and Semyon Dyatlov. Spectral gaps without the pressure condition. *Ann. of Math. (2)*, 187(3):825–867, 2018.
- [601] J. Bourgain, T. Figiel, and V. Milman. On Hilbertian subsets of finite metric spaces. *Israel J. Math.*, 55(2):147–152, 1986.
- [602] Jean Bourgain, Kevin Ford, Sergei V. Konyagin, and Igor E. Shparlinski. On the divisibility of Fermat quotients. *Michigan Math. J.*, 59(2):313–328, 2010.
- [603] J. Bourgain, D. H. Fremlin, and M. Talagrand. Pointwise compact sets of Baire-measurable functions. *Amer. J. Math.*, 100(4):845–886, 1978.
- [604] Jean Bourgain and Elena Fuchs. A proof of the positive density conjecture for integer Apollonian circle packings. *J. Amer. Math. Soc.*, 24(4):945–967, 2011.
- [605] Jean Bourgain and Elena Fuchs. On representation of integers by binary quadratic forms. *Int. Math. Res. Not. IMRN*, (24):5505–5553, 2012.
- [606] Jean Bourgain, Alex Furman, Elon Lindenstrauss, and Shahar Mozes. Invariant measures and stiffness for non-abelian groups of toral automorphisms. *C. R. Math. Acad. Sci. Paris*, 344(12):737–742, 2007.
- [607] Jean Bourgain, Alex Furman, Elon Lindenstrauss, and Shahar Mozes. Stationary measures and equidistribution for orbits of nonabelian semigroups on the torus. *J. Amer. Math. Soc.*, 24(1):231–280, 2011.
- [608] Jean Bourgain, Alex Gamburd, and Peter Sarnak. Sieving and expanders. *C. R. Math. Acad. Sci. Paris*, 343(3):155–159, 2006.
- [609] Jean Bourgain, Alex Gamburd, and Peter Sarnak. Affine linear sieve, expanders, and sum-product. *Invent. Math.*, 179(3):559–644, 2010.
- [610] Jean Bourgain, Alex Gamburd, and Peter Sarnak. Generalization of Selberg’s  $\frac{3}{16}$  theorem and affine sieve. *Acta Math.*, 207(2):255–290, 2011.
- [611] Jean Bourgain, Alexander Gamburd, and Peter Sarnak. Markoff triples and strong approximation. *C. R. Math. Acad. Sci. Paris*, 354(2):131–135, 2016.
- [612] Jean Bourgain and Alex Gamburd. New results on expanders. *C. R. Math. Acad. Sci. Paris*, 342(10):717–721, 2006.
- [613] Jean Bourgain and Alex Gamburd. Expansion and random walks in  $\mathrm{SL}_d(\mathbb{Z}/p^n\mathbb{Z})$ . I. *J. Eur. Math. Soc. (JEMS)*, 10(4):987–1011, 2008.
- [614] Jean Bourgain and Alex Gamburd. On the spectral gap for finitely-generated subgroups of  $\mathrm{SU}(2)$ . *Invent. Math.*, 171(1):83–121, 2008.
- [615] Jean Bourgain and Alex Gamburd. Random walks and expansion in  $\mathrm{SL}_d(\mathbb{Z}/p^n\mathbb{Z})$ . *C. R. Math. Acad. Sci. Paris*, 346(11-12):619–623, 2008.
- [616] Jean Bourgain and Alex Gamburd. Uniform expansion bounds for Cayley graphs of  $\mathrm{SL}_2(F_p)$ . *Ann. of Math. (2)*, 167(2):625–642, 2008.
- [617] Jean Bourgain and Alex Gamburd. Expansion and random walks in  $\mathrm{SL}_d(\mathbb{Z}/p^n\mathbb{Z})$ . II. *J. Eur. Math. Soc. (JEMS)*, 11(5):1057–1103, 2009. With an appendix by Bourgain.

- [618] Jean Bourgain and Alexander Gamburd. Spectral gaps in  $SU(d)$ . *C. R. Math. Acad. Sci. Paris*, 348(11-12):609–611, 2010.
- [619] J. Bourgain and A. Gamburd. A spectral gap theorem in  $SU(d)$ . *J. Eur. Math. Soc. (JEMS)*, 14(5):1455–1511, 2012.
- [620] Jean Bourgain, Mubhariz Z. Garaev, Sergei V. Konyagin, and Igor E. Shparlinski. On the hidden shifted power problem. *SIAM J. Comput.*, 41(6):1524–1557, 2012.
- [621] Jean Bourgain, Mubhariz Z. Garaev, Sergei V. Konyagin, and Igor E. Shparlinski. On congruences with products of variables from short intervals and applications. *Tr. Mat. Inst. Steklova*, 280:67–96, 2013.
- [622] Jean Bourgain, Mubhariz Z. Garaev, Sergei V. Konyagin, and Igor E. Shparlinski. Multiplicative congruences with variables from short intervals. *J. Anal. Math.*, 124:117–147, 2014.
- [623] J. Bourgain and M. Z. Garaev. On a variant of sum-product estimates and explicit exponential sum bounds in prime fields. *Math. Proc. Cambridge Philos. Soc.*, 146(1):1–21, 2009.
- [624] J. Bourgain and M. Z. Garaev. Kloosterman sums in residue rings. *Acta Arith.*, 164(1):43–64, 2014.
- [625] J. Bourgain, A. A. Glibichuk, and S. V. Konyagin. Estimates for the number of sums and products and for exponential sums in fields of prime order. *J. London Math. Soc. (2)*, 73(2):380–398, 2006.
- [626] J. Bourgain and A. Glibichuk. Exponential sum estimates over a subgroup in an arbitrary finite field. *J. Anal. Math.*, 115:51–70, 2011.
- [627] Jean Bourgain, Michael Goldstein, and Wilhelm Schlag. Anderson localization for Schrödinger operators on  $Z$  with potentials given by the skew-shift. *Comm. Math. Phys.*, 220(3):583–621, 2001.
- [628] Jean Bourgain, Michael Goldstein, and Wilhelm Schlag. Anderson localization for Schrödinger operators on  $Z^2$  with quasi-periodic potential. *Acta Math.*, 188(1):41–86, 2002.
- [629] J. Bourgain and M. Goldstein. On nonperturbative localization with quasi-periodic potential. *Ann. of Math. (2)*, 152(3):835–879, 2000.
- [630] Jean Bourgain, François Golse, and Bernt Wennberg. On the distribution of free path lengths for the periodic Lorentz gas. *Comm. Math. Phys.*, 190(3):491–508, 1998.
- [631] J. Bourgain and M. Gromov. Estimates of Bernstein widths of Sobolev spaces. In *Geometric aspects of functional analysis (1987–88)*, volume 1376 of *Lecture Notes in Math.*, pages 176–185. Springer, Berlin, 1989.
- [632] J. Bourgain, F. A. Grünbaum, L. Velázquez, and J. Wilkening. Quantum recurrence of a subspace and operator-valued Schur functions. *Comm. Math. Phys.*, 329(3):1031–1067, 2014.
- [633] Jean Bourgain and Larry Guth. Bounds on oscillatory integral operators based on multilinear estimates. *Geom. Funct. Anal.*, 21(6):1239–1295, 2011.
- [634] Jean Bourgain and Lawrence Guth. Bounds on oscillatory integral operators. *C. R. Math. Acad. Sci. Paris*, 349(3-4):137–141, 2011.
- [635] J. Bourgain and S. Jitomirskaya. Anderson localization for the band model. In *Geometric aspects of functional analysis*, volume 1745 of *Lecture Notes in Math.*, pages 67–79. Springer, Berlin, 2000.
- [636] J. Bourgain and S. Jitomirskaya. Absolutely continuous spectrum for 1D quasiperiodic operators. *Invent. Math.*, 148(3):453–463, 2002.

- [637] J. Bourgain and S. Jitomirskaya. Continuity of the Lyapunov exponent for quasiperiodic operators with analytic potential. volume 108, pages 1203–1218. 2002. Dedicated to David Ruelle and Yasha Sinai on the occasion of their 65th birthdays.
- [638] Jean Bourgain and Ilya Kachkovskiy. Anderson localization for two interacting quasiperiodic particles. *Geom. Funct. Anal.*, 29(1):3–43, 2019.
- [639] Jean Bourgain and Jean-Pierre Kahane. Sur les séries de Fourier des fonctions continues unimodulaires. *Ann. Inst. Fourier (Grenoble)*, 60(4):1201–1214, 2010.
- [640] Jean Bourgain, Jeff Kahn, Gil Kalai, Yitzhak Katznelson, and Nathan Linial. The influence of variables in product spaces. *Israel J. Math.*, 77(1-2):55–64, 1992.
- [641] J. Bourgain and G. Kalai. Influences of variables and threshold intervals under group symmetries. *Geom. Funct. Anal.*, 7(3):438–461, 1997.
- [642] Jean Bourgain and Gil Kalai. Threshold intervals under group symmetries. In *Convex geometric analysis (Berkeley, CA, 1996)*, volume 34 of *Math. Sci. Res. Inst. Publ.*, pages 59–63. Cambridge Univ. Press, Cambridge, 1999.
- [643] Jean Bourgain and Vadim Kaloshin. On diffusion in high-dimensional Hamiltonian systems. *J. Funct. Anal.*, 229(1):1–61, 2005.
- [644] J. Bourgain, N. J. Kalton, and L. Tzafriri. Geometry of finite-dimensional subspaces and quotients of  $L_p$ . In *Geometric aspects of functional analysis (1987–88)*, volume 1376 of *Lecture Notes in Math.*, pages 138–175. Springer, Berlin, 1989.
- [645] J. Bourgain, N. Katz, and T. Tao. A sum-product estimate in finite fields, and applications. *Geom. Funct. Anal.*, 14(1):27–57, 2004.
- [646] Jean Bourgain and Carlos E. Kenig. On localization in the continuous Anderson-Bernoulli model in higher dimension. *Invent. Math.*, 161(2):389–426, 2005.
- [647] Jean Bourgain, Bo’az Klartag, and Vitali Milman. A reduction of the slicing problem to finite volume ratio bodies. *C. R. Math. Acad. Sci. Paris*, 336(4):331–334, 2003.
- [648] J. Bourgain, B. Klartag, and V. Milman. Symmetrization and isotropic constants of convex bodies. In *Geometric aspects of functional analysis*, volume 1850 of *Lecture Notes in Math.*, pages 101–115. Springer, Berlin, 2004.
- [649] Jean Bourgain and Abel Klein. Bounds on the density of states for Schrödinger operators. *Invent. Math.*, 194(1):41–72, 2013.
- [650] Jean Bourgain, Alex Kontorovich, and Peter Sarnak. Sector estimates for hyperbolic isometries. *Geom. Funct. Anal.*, 20(5):1175–1200, 2010.
- [651] Jean Bourgain and Alex Kontorovich. Erratum to: On representations of integers in thin subgroups of  $SL_2(\mathbb{Z})$  [mr2746949]. *Geom. Funct. Anal.*, 20(6):1548–1549, 2010.
- [652] Jean Bourgain and Alex Kontorovich. On representations of integers in thin subgroups of  $SL_2(\mathbb{Z})$ . *Geom. Funct. Anal.*, 20(5):1144–1174, 2010.
- [653] Jean Bourgain and Alex Kontorovich. On a theorem of Friedlander and Iwaniec. *C. R. Math. Acad. Sci. Paris*, 348(17-18):947–950, 2010.
- [654] Jean Bourgain and Alex Kontorovich. On Zaremba’s conjecture. *C. R. Math. Acad. Sci. Paris*, 349(9-10):493–495, 2011.
- [655] Jean Bourgain and Alex Kontorovich. On the local-global conjecture for integral Apollonian gaskets. *Invent. Math.*, 196(3):589–650, 2014. With an appendix by Péter P. Varjú.

- [656] Jean Bourgain and Alex Kontorovich. On Zaremba's conjecture. *Ann. of Math. (2)*, 180(1):137–196, 2014.
- [657] Jean Bourgain and Alex Kontorovich. The affine sieve beyond expansion I: Thin hypotenuses. *Int. Math. Res. Not. IMRN*, (19):9175–9205, 2015.
- [658] Jean Bourgain and Alex Kontorovich. Beyond expansion II: low-lying fundamental geodesics. *J. Eur. Math. Soc. (JEMS)*, 19(5):1331–1359, 2017.
- [659] Jean Bourgain and Alex Kontorovich. Beyond expansion IV: Traces of thin semigroups. *Discrete Anal.*, pages Paper No. 6, 27, 2018.
- [660] Jean Bourgain and Alex Kontorovich. Beyond expansion, III: Reciprocal geodesics. *Duke Math. J.*, 168(18):3413–3435, 2019.
- [661] Jean Bourgain, Sergei V. Konyagin, and Igor E. Shparlinski. Product sets of rationals, multiplicative translates of subgroups in residue rings, and fixed points of the discrete logarithm. *Int. Math. Res. Not. IMRN*, pages Art. ID rnn 090, 29, 2008.
- [662] Jean Bourgain, Sergei V. Konyagin, and Igor E. Shparlinski. Corrigenda to: Product sets of rationals, multiplicative translates of subgroups in residue rings and fixed points of the discrete logarithm [mr2439546]. *Int. Math. Res. Not. IMRN*, (16):3146–3147, 2009.
- [663] Jean Bourgain, Sergei V. Konyagin, Carl Pomerance, and Igor E. Shparlinski. On the smallest pseudopower. *Acta Arith.*, 140(1):43–55, 2009.
- [664] Jean Bourgain, Sergei V. Konyagin, and Igor E. Shparlinski. Distribution of elements of cosets of small subgroups and applications. *Int. Math. Res. Not. IMRN*, (9):1968–2009, 2012.
- [665] Jean Bourgain, Sergei V. Konyagin, and Igor E. Shparlinski. Character sums and deterministic polynomial root finding in finite fields. *Math. Comp.*, 84(296):2969–2977, 2015.
- [666] Jean Bourgain and S. V. Konyagin. Estimates for the number of sums and products and for exponential sums over subgroups in fields of prime order. *C. R. Math. Acad. Sci. Paris*, 337(2):75–80, 2003.
- [667] Jean Bourgain, Mikhail Korobkov, and Jan Kristensen. On the Morse-Sard property and level sets of Sobolev and BV functions. *Rev. Mat. Iberoam.*, 29(1):1–23, 2013.
- [668] Jean Bourgain, Mikhail V. Korobkov, and Jan Kristensen. On the Morse-Sard property and level sets of  $W^{n,1}$  Sobolev functions on  $R^n$ . *J. Reine Angew. Math.*, 700:93–112, 2015.
- [669] J. Bourgain, S. Kostyukovsky, and A. Olevskii. A remark on a maximal operator for Fourier multipliers. *Real Anal. Exchange*, 26(2):901–904, 2000/01.
- [670] Jean Bourgain and Gady Kozma. One cannot hear the winding number. *J. Eur. Math. Soc. (JEMS)*, 9(4):637–658, 2007.
- [671] Jean Bourgain and Mark Lewko. Sidonicity and variants of Kaczmarz's problem. *Ann. Inst. Fourier (Grenoble)*, 67(3):1321–1352, 2017.
- [672] Jean Bourgain and Dong Li. On an endpoint Kato-Ponce inequality. *Differential Integral Equations*, 27(11-12):1037–1072, 2014.
- [673] Jean Bourgain and Dong Li. Strong illposedness of the incompressible Euler equation in integer  $C^m$  spaces. *Geom. Funct. Anal.*, 25(1):1–86, 2015.
- [674] Jean Bourgain and Dong Li. Strong ill-posedness of the incompressible Euler equation in borderline Sobolev spaces. *Invent. Math.*, 201(1):97–157, 2015.

- [675] Jean Bourgain and Dong Li. Galilean boost and non-uniform continuity for incompressible Euler. *Comm. Math. Phys.*, 372(1):261–280, 2019.
- [676] Jean Bourgain and Dong Li. Strong ill-posedness of the 3D incompressible Euler equation in borderline spaces. *Int. Math. Res. Not. IMRN*, (16):12155–12264, 2021.
- [677] Jean Bourgain, Elon Lindenstrauss, Philippe Michel, and Akshay Venkatesh. Some effective results for  $\times a \times b$ . *Ergodic Theory Dynam. Systems*, 29(6):1705–1722, 2009.
- [678] Jean Bourgain, Joram Lindenstrauss, and Vitali Milman. Sur l’approximation de zonôïdes par des zonotôpes. *C. R. Acad. Sci. Paris Sér. I Math.*, 303(20):987–988, 1986.
- [679] J. Bourgain, J. Lindenstrauss, and V. D. Milman. Minkowski sums and symmetrizations. In *Geometric aspects of functional analysis (1986/87)*, volume 1317 of *Lecture Notes in Math.*, pages 44–66. Springer, Berlin, 1988.
- [680] J. Bourgain, J. Lindenstrauss, and V. Milman. Approximation of zonoids by zonotopes. *Acta Math.*, 162(1-2):73–141, 1989.
- [681] J. Bourgain, J. Lindenstrauss, and V. Milman. Estimates related to Steiner symmetrizations. In *Geometric aspects of functional analysis (1987–88)*, volume 1376 of *Lecture Notes in Math.*, pages 264–273. Springer, Berlin, 1989.
- [682] Jean Bourgain and Elon Lindenstrauss. Entropy of quantum limits. *Comm. Math. Phys.*, 233(1):153–171, 2003.
- [683] J. Bourgain and J. Lindenstrauss. Distribution of points on spheres and approximation by zonotopes. *Israel J. Math.*, 64(1):25–31, 1988.
- [684] Jean Bourgain and Joram Lindenstrauss. Nouveaux résultats sur les zonôïdes et les corps de projection. *C. R. Acad. Sci. Paris Sér. I Math.*, 306(8):377–380, 1988.
- [685] J. Bourgain and J. Lindenstrauss. Projection bodies. In *Geometric aspects of functional analysis (1986/87)*, volume 1317 of *Lecture Notes in Math.*, pages 250–270. Springer, Berlin, 1988.
- [686] J. Bourgain and J. Lindenstrauss. Almost Euclidean sections in spaces with a symmetric basis. In *Geometric aspects of functional analysis (1987–88)*, volume 1376 of *Lecture Notes in Math.*, pages 278–288. Springer, Berlin, 1989.
- [687] J. Bourgain and J. Lindenstrauss. On covering a set in  $\mathbf{R}^N$  by balls of the same diameter. In *Geometric aspects of functional analysis (1989–90)*, volume 1469 of *Lecture Notes in Math.*, pages 138–144. Springer, Berlin, 1991.
- [688] Jean Bourgain and Joram Lindenstrauss. Approximating the ball by a Minkowski sum of segments with equal length. *Discrete Comput. Geom.*, 9(2):131–144, 1993.
- [689] J. Bourgain, M. Meyer, V. Milman, and A. Pajor. On a geometric inequality. In *Geometric aspects of functional analysis (1986/87)*, volume 1317 of *Lecture Notes in Math.*, pages 271–282. Springer, Berlin, 1988.
- [690] J. Bourgain, V. Milman, and H. Wolfson. On type of metric spaces. *Trans. Amer. Math. Soc.*, 294(1):295–317, 1986.
- [691] Jean Bourgain and Vitali Milman. Dichotomie du cotype pour les espaces invariants. *C. R. Acad. Sci. Paris Sér. I Math.*, 300(9):263–266, 1985.
- [692] Jean Bourgain and Vitali D. Milman. Sections euclidiennes et volume des corps symétriques convexes dans  $\mathbf{R}^n$ . *C. R. Acad. Sci. Paris Sér. I Math.*, 300(13):435–438, 1985.

- [693] J. Bourgain and V. D. Milman. Distances between normed spaces, their subspaces and quotient spaces. *Integral Equations Operator Theory*, 9(1):31–46, 1986.
- [694] J. Bourgain and V. D. Milman. New volume ratio properties for convex symmetric bodies in  $\mathbf{R}^n$ . *Invent. Math.*, 88(2):319–340, 1987.
- [695] Jean Bourgain, Mariusz Mirek, Elias M. Stein, and Błażej Wróbel. On dimension-free variational inequalities for averaging operators in  $R^d$ . *Geom. Funct. Anal.*, 28(1):58–99, 2018.
- [696] Jean Bourgain, Mariusz Mirek, Elias M. Stein, and Błażej Wróbel. Dimension-free estimates for discrete Hardy-Littlewood averaging operators over the cubes in  $Z^d$ . *Amer. J. Math.*, 141(4):857–905, 2019.
- [697] Jean Bourgain, Mariusz Mirek, Elias M. Stein, and Błażej Wróbel. On discrete Hardy-Littlewood maximal functions over the balls in  $Z^d$ : dimension-free estimates. In *Geometric aspects of functional analysis. Vol. I*, volume 2256 of *Lecture Notes in Math.*, pages 127–169. Springer, Cham, [2020] ©2020.
- [698] Jean Bourgain, Mariusz Mirek, Elias M. Stein, and Błażej Wróbel. On the Hardy-Littlewood maximal functions in high dimensions: continuous and discrete perspective. In *Geometric aspects of harmonic analysis*, volume 45 of *Springer INdAM Ser.*, pages 107–148. Springer, Cham, [2021] ©2021.
- [699] Jean Bourgain and Hoai-Minh Nguyen. A new characterization of Sobolev spaces. *C. R. Math. Acad. Sci. Paris*, 343(2):75–80, 2006.
- [700] J. Bourgain, A. Pajor, S. J. Szarek, and N. Tomczak-Jaegermann. On the duality problem for entropy numbers of operators. In *Geometric aspects of functional analysis (1987–88)*, volume 1376 of *Lecture Notes in Math.*, pages 50–63. Springer, Berlin, 1989.
- [701] Jean Bourgain and Nataša Pavlović. Ill-posedness of the Navier-Stokes equations in a critical space in 3D. *J. Funct. Anal.*, 255(9):2233–2247, 2008.
- [702] Jean Bourgain and Gilles Pisier. A construction of  $L_{infty}$ -spaces and related Banach spaces. *Bol. Soc. Brasil. Mat.*, 14(2):109–123, 1983.
- [703] Jean Bourgain and Oleg Reinov. On the approximation properties for the space  $H^{infty}$ . *Math. Nachr.*, 122:19–27, 1985.
- [704] J. Bourgain, H. P. Rosenthal, and G. Schechtman. An ordinal  $L^p$ -index for Banach spaces, with application to complemented subspaces of  $L^p$ . *Ann. of Math. (2)*, 114(2):193–228, 1981.
- [705] J. Bourgain and H. P. Rosenthal. Geometrical implications of certain finite-dimensional decompositions. *Bull. Soc. Math. Belg. Sér. B*, 32(1):57–82, 1980.
- [706] J. Bourgain and H. P. Rosenthal. Martingales valued in certain subspaces of  $L^1$ . *Israel J. Math.*, 37(1-2):54–75, 1980.
- [707] J. Bourgain and H. P. Rosenthal. Applications of the theory of semi-embeddings to Banach space theory. *J. Funct. Anal.*, 52(2):149–188, 1983.
- [708] J. Bourgain, Z. Rudnick, and P. Sarnak. Spatial statistics for lattice points on the sphere I: Individual results. *Bull. Iranian Math. Soc.*, 43(4):361–386, 2017.
- [709] Jean Bourgain and Zeév Rudnick. Restriction of toral eigenfunctions to hypersurfaces. *C. R. Math. Acad. Sci. Paris*, 347(21-22):1249–1253, 2009.
- [710] Jean Bourgain and Zeév Rudnick. On the geometry of the nodal lines of eigenfunctions of the two-dimensional torus. *Ann. Henri Poincaré*, 12(6):1027–1053, 2011.

- [711] Jean Bourgain and Zeév Rudnick. On the nodal sets of toral eigenfunctions. *Invent. Math.*, 185(1):199–237, 2011.
- [712] Jean Bourgain and Zeév Rudnick. Restriction of toral eigenfunctions to hypersurfaces and nodal sets. *Geom. Funct. Anal.*, 22(4):878–937, 2012.
- [713] Jean Bourgain and Zeév Rudnick. Nodal intersections and  $L^p$  restriction theorems on the torus. *Israel J. Math.*, 207(1):479–505, 2015.
- [714] J. Bourgain, P. Sarnak, and T. Ziegler. Disjointness of Moebius from horocycle flows. In *From Fourier analysis and number theory to Radon transforms and geometry*, volume 28 of *Dev. Math.*, pages 67–83. Springer, New York, 2013.
- [715] Jean Bourgain, Peter Sarnak, and Zeév Rudnick. Local statistics of lattice points on the sphere. In *Modern trends in constructive function theory*, volume 661 of *Contemp. Math.*, pages 269–282. Amer. Math. Soc., Providence, RI, 2016.
- [716] J. Bourgain and H. Sato. A direct proof of van der Vaart’s theorem. *Studia Math.*, 84(2):125–131, 1986.
- [717] Jean Bourgain and Wilhelm Schlag. Anderson localization for Schrödinger operators on  $\mathbf{Z}$  with strongly mixing potentials. *Comm. Math. Phys.*, 215(1):143–175, 2000.
- [718] Jean Bourgain, Peng Shao, Christopher D. Sogge, and Xiaohua Yao. On  $L^p$ -resolvent estimates and the density of eigenvalues for compact Riemannian manifolds. *Comm. Math. Phys.*, 333(3):1483–1527, 2015.
- [719] Jean Bourgain and Igor E. Shparlinski. Distribution of consecutive modular roots of an integer. *Acta Arith.*, 134(1):83–91, 2008.
- [720] J. Bourgain and S. J. Szarek. The Banach-Mazur distance to the cube and the Dvoretzky-Rogers factorization. *Israel J. Math.*, 62(2):169–180, 1988.
- [721] Jean Bourgain and Michel Talagrand. Compacité extrême. *Proc. Amer. Math. Soc.*, 80(1):68–70, 1980.
- [722] Jean Bourgain and Michel Talagrand. Dans un espace de Banach reticulé solide, la propriété de Radon-Nikodým et celle de Krein-Milman sont équivalentes. *Proc. Amer. Math. Soc.*, 81(1):93–96, 1981.
- [723] J. Bourgain and L. Tzafriri. Complements of subspaces of  $l_p^n$ ,  $p \geq 1$ , which are uniquely determined. In *Geometrical aspects of functional analysis (1985/86)*, volume 1267 of *Lecture Notes in Math.*, pages 39–52. Springer, Berlin, 1987.
- [724] J. Bourgain and L. Tzafriri. Invertibility of “large” submatrices with applications to the geometry of Banach spaces and harmonic analysis. *Israel J. Math.*, 57(2):137–224, 1987.
- [725] J. Bourgain and L. Tzafriri. Restricted invertibility of matrices and applications. In *Analysis at Urbana, Vol. II (Urbana, IL, 1986–1987)*, volume 138 of *London Math. Soc. Lecture Note Ser.*, pages 61–107. Cambridge Univ. Press, Cambridge, 1989.
- [726] J. Bourgain and L. Tzafriri. Embedding  $l_p^k$  in subspaces of  $L_p$  for  $p > 2$ . *Israel J. Math.*, 72(3):321–340, 1990.
- [727] J. Bourgain and L. Tzafriri. On a problem of Kadison and Singer. *J. Reine Angew. Math.*, 420:1–43, 1991.
- [728] Jean Bourgain and Péter P. Varjú. Expansion in  $SL_d(\mathbf{Z}/q\mathbf{Z})$ ,  $q$  arbitrary. *Invent. Math.*, 188(1):151–173, 2012.

- [729] Jean Bourgain and Dan-Virgil Voiculescu. The essential centre of the mod a diagonalization ideal commutant of an  $n$ -tuple of commuting Hermitian operators. In *Noncommutative analysis, operator theory and applications*, volume 252 of *Oper. Theory Adv. Appl.*, pages 77–80. Birkhäuser/Springer, [Cham], 2016.
- [730] Jean Bourgain, Van H. Vu, and Philip Matchett Wood. On the singularity probability of discrete random matrices. *J. Funct. Anal.*, 258(2):559–603, 2010.
- [731] Jean Bourgain and Wei-Min Wang. Anderson localization for time quasi-periodic random Schrödinger and wave equations. *Comm. Math. Phys.*, 248(3):429–466, 2004.
- [732] J. Bourgain and W.-M. Wang. Diffusion bound for a nonlinear Schrödinger equation. In *Mathematical aspects of nonlinear dispersive equations*, volume 163 of *Ann. of Math. Stud.*, pages 21–42. Princeton Univ. Press, Princeton, NJ, 2007.
- [733] J. Bourgain and W.-M. Wang. Quasi-periodic solutions of nonlinear random Schrödinger equations. *J. Eur. Math. Soc. (JEMS)*, 10(1):1–45, 2008.
- [734] Jean Bourgain and W. Wang. Construction of blowup solutions for the nonlinear Schrödinger equation with critical nonlinearity. volume 25, pages 197–215. 1997. Dedicated to Ennio De Giorgi.
- [735] Jean Bourgain and Nigel Watt. Decoupling for perturbed cones and the mean square of  $|\zeta(\frac{1}{2} + it)|$ . *Int. Math. Res. Not. IMRN*, (17):5219–5296, 2018.
- [736] J. Bourgain and T. Wolff. A remark on gradients of harmonic functions in dimension  $\geq 3$ . *Colloq. Math.*, 60/61(1):253–260, 1990.
- [737] Jean Bourgain and Amir Yehudayoff. Monotone expansion. In *STOC’12—Proceedings of the 2012 ACM Symposium on Theory of Computing*, pages 1061–1078. ACM, New York, 2012.
- [738] Jean Bourgain and Amir Yehudayoff. Expansion in  $SL_2(R)$  and monotone expanders. *Geom. Funct. Anal.*, 23(1):1–41, 2013.
- [739] Jean Bourgain and Gaoyong Zhang. On a generalization of the Busemann-Petty problem. In *Convex geometric analysis (Berkeley, CA, 1996)*, volume 34 of *Math. Sci. Res. Inst. Publ.*, pages 65–76. Cambridge Univ. Press, Cambridge, 1999.
- [740] J. Bourgain. Harmonic analysis and combinatorics: how much may they contribute to each other? In *Mathematics: frontiers and perspectives*, pages 13–32. Amer. Math. Soc., Providence, RI, 2000.
- [741] J. Bourgain. Hölder regularity of integrated density of states for the almost Mathieu operator in a perturbative regime. *Lett. Math. Phys.*, 51(2):83–118, 2000.
- [742] J. Bourgain. Invariant measures for NLS in infinite volume. *Comm. Math. Phys.*, 210(3):605–620, 2000.
- [743] Jean Bourgain. On large values estimates for Dirichlet polynomials and the density hypothesis for the Riemann zeta function. *Internat. Math. Res. Notices*, (3):133–146, 2000.
- [744] J. Bourgain. On diffusion in high-dimensional Hamiltonian systems and PDE. *J. Anal. Math.*, 80:1–35, 2000.
- [745] J. Bourgain. Positive Lyapounov exponents for most energies. In *Geometric aspects of functional analysis*, volume 1745 of *Lecture Notes in Math.*, pages 37–66. Springer, Berlin, 2000.
- [746] J. Bourgain. Problems in Hamiltonian PDE’s. pages 32–56. 2000. GAFA 2000 (Tel Aviv, 1999).



- [747] Jean Bourgain.  $\Lambda_p$ -sets in analysis: results, problems and related aspects. In *Handbook of the geometry of Banach spaces, Vol. I*, pages 195–232. North-Holland, Amsterdam, 2001.
- [748] J. Bourgain. Estimates on Green’s functions, localization and the quantum kicked rotor model. *Ann. of Math. (2)*, 156(1):249–294, 2002.
- [749] Jean Bourgain. Exposants de Lyapounov pour opérateurs de Schrödinger discrètes quasi-périodiques. *C. R. Math. Acad. Sci. Paris*, 335(6):529–531, 2002.
- [750] Jean Bourgain. New results on the spectrum of lattice Schrödinger operators and applications. In *Mathematical results in quantum mechanics (Taxco, 2001)*, volume 307 of *Contemp. Math.*, pages 27–38. Amer. Math. Soc., Providence, RI, 2002.
- [751] J. Bourgain. On the spectrum of lattice Schrödinger operators with deterministic potential. II. volume 88, pages 221–254. 2002. Dedicated to the memory of Tom Wolff.
- [752] J. Bourgain. On the distribution of Dirichlet sums. II. In *Number theory for the millennium, I (Urbana, IL, 2000)*, pages 87–109. A K Peters, Natick, MA, 2002.
- [753] J. Bourgain. On the distributions of the Fourier spectrum of Boolean functions. *Israel J. Math.*, 131:269–276, 2002.
- [754] Jean Bourgain. On the global Cauchy problem for the nonlinear Schrödinger equation. *Proc. Natl. Acad. Sci. USA*, 99(24):15262–15268, 2002.
- [755] J. Bourgain. On the spectrum of lattice Schrödinger operators with deterministic potential. volume 87, pages 37–75. 2002. Dedicated to the memory of Thomas H. Wolff.
- [756] Jean Bourgain. On random Schrödinger operators on  $Z^2$ . *Discrete Contin. Dyn. Syst.*, 8(1):1–15, 2002.
- [757] J. Bourgain. On the Erdos-Volkmann and Katz-Tao ring conjectures. *Geom. Funct. Anal.*, 13(2):334–365, 2003.
- [758] J. Bourgain. On the isotropy-constant problem for “PSI-2”-bodies. In *Geometric aspects of functional analysis*, volume 1807 of *Lecture Notes in Math.*, pages 114–121. Springer, Berlin, 2003.
- [759] J. Bourgain. On long-time behaviour of solutions of linear Schrödinger equations with smooth time-dependent potential. In *Geometric aspects of functional analysis*, volume 1807 of *Lecture Notes in Math.*, pages 99–113. Springer, Berlin, 2003.
- [760] J. Bourgain. Random lattice Schrödinger operators with decaying potential: some higher dimensional phenomena. In *Geometric aspects of functional analysis*, volume 1807 of *Lecture Notes in Math.*, pages 70–98. Springer, Berlin, 2003.
- [761] Jean Bourgain. Mordell type exponential sum estimates in fields of prime order. *C. R. Math. Acad. Sci. Paris*, 339(5):321–325, 2004.
- [762] Jean Bourgain. New bounds on exponential sums related to the Diffie-Hellman distributions. *C. R. Math. Acad. Sci. Paris*, 338(11):825–830, 2004.
- [763] J. Bourgain. On localization for lattice Schrödinger operators involving Bernoulli variables. In *Geometric aspects of functional analysis*, volume 1850 of *Lecture Notes in Math.*, pages 77–99. Springer, Berlin, 2004.
- [764] Jean Bourgain. On quasi-periodic lattice Schrödinger operators. volume 10, pages 75–88. 2004. Partial differential equations and applications.
- [765] Jean Bourgain. A remark on normal forms and the “ $I$ -method” for periodic NLS. *J. Anal. Math.*, 94:125–157, 2004.

- [766] Jean Bourgain. Remarks on stability and diffusion in high-dimensional Hamiltonian systems and partial differential equations. *Ergodic Theory Dynam. Systems*, 24(5):1331–1357, 2004.
- [767] J. Bourgain. Anderson-Bernoulli models. *Mosc. Math. J.*, 5(3):523–536, 742, 2005.
- [768] J. Bourgain. Estimates on exponential sums related to the Diffie-Hellman distributions. *Geom. Funct. Anal.*, 15(1):1–34, 2005.
- [769] Jean Bourgain. Estimation of certain exponential sums arising in complexity theory. *C. R. Math. Acad. Sci. Paris*, 340(9):627–631, 2005.
- [770] J. Bourgain. Exponential sum estimates over subgroups of  $Z_q^*$ ,  $q$  arbitrary. *J. Anal. Math.*, 97:317–355, 2005.
- [771] J. Bourgain. *Green’s function estimates for lattice Schrödinger operators and applications*, volume 158 of *Annals of Mathematics Studies*. Princeton University Press, Princeton, NJ, 2005.
- [772] J. Bourgain. Mordell’s exponential sum estimate revisited. *J. Amer. Math. Soc.*, 18(2):477–499, 2005.
- [773] J. Bourgain. More on the sum-product phenomenon in prime fields and its applications. *Int. J. Number Theory*, 1(1):1–32, 2005.
- [774] J. Bourgain. New encounters in combinatorial number theory: from the Kakeya problem to cryptography. In *Perspectives in analysis*, volume 27 of *Math. Phys. Stud.*, pages 17–26. Springer, Berlin, 2005.
- [775] J. Bourgain. On invariant tori of full dimension for 1D periodic NLS. *J. Funct. Anal.*, 229(1):62–94, 2005.
- [776] J. Bourgain. Positivity and continuity of the Lyapounov exponent for shifts on  $T^d$  with arbitrary frequency vector and real analytic potential. *J. Anal. Math.*, 96:313–355, 2005.
- [777] Jean Bourgain. Nonlinear Schrödinger equation with a random potential. *Illinois J. Math.*, 50(1-4):183–188, 2006.
- [778] Jean Bourgain. On an exponential sum related to the Diffie-Hellman cryptosystem. *Int. Math. Res. Not.*, pages Art. ID 61271, 15, 2006.
- [779] Jean Bourgain. Anderson localization for quasi-periodic lattice Schrödinger operators on  $Z^d$ ,  $d$  arbitrary. *Geom. Funct. Anal.*, 17(3):682–706, 2007.
- [780] J. Bourgain. Exponential sum estimates in finite commutative rings and applications. *J. Anal. Math.*, 101:325–355, 2007.
- [781] Jean Bourgain. A new approach to spectral graph problems. In *Spectral theory and mathematical physics: a Festschrift in honor of Barry Simon’s 60th birthday*, volume 76, Part 2 of *Proc. Sympos. Pure Math.*, pages 499–504. Amer. Math. Soc., Providence, RI, 2007.
- [782] J. Bourgain. Normal forms and the nonlinear Schrödinger equation. In *Perspectives in nonlinear partial differential equations*, volume 446 of *Contemp. Math.*, pages 153–157. Amer. Math. Soc., Providence, RI, 2007.
- [783] J. Bourgain. On Strichartz’s inequalities and the nonlinear Schrödinger equation on irrational tori. In *Mathematical aspects of nonlinear dispersive equations*, volume 163 of *Ann. of Math. Stud.*, pages 1–20. Princeton Univ. Press, Princeton, NJ, 2007.
- [784] Jean Bourgain. On the construction of affine extractors. *Geom. Funct. Anal.*, 17(1):33–57, 2007.

- [785] J. Bourgain. A remark on quantum ergodicity for CAT maps. In *Geometric aspects of functional analysis*, volume 1910 of *Lecture Notes in Math.*, pages 89–98. Springer, Berlin, 2007.
- [786] J. Bourgain. Some arithmetical applications of the sum-product theorems in finite fields. In *Geometric aspects of functional analysis*, volume 1910 of *Lecture Notes in Math.*, pages 99–116. Springer, Berlin, 2007.
- [787] Jean Bourgain. Sum-product theorems and exponential sum bounds in residue classes for general modulus. *C. R. Math. Acad. Sci. Paris*, 344(6):349–352, 2007.
- [788] Jean Bourgain. On the absence of dynamical localization in higher dimensional random Schrödinger operators. In *Perspectives in partial differential equations, harmonic analysis and applications*, volume 79 of *Proc. Sympos. Pure Math.*, pages 21–32. Amer. Math. Soc., Providence, RI, 2008.
- [789] Jean Bourgain. Roth’s theorem on progressions revisited. *J. Anal. Math.*, 104:155–192, 2008.
- [790] Jean Bourgain. The sum-product theorem in  $Z_q$  with  $q$  arbitrary. *J. Anal. Math.*, 106:1–93, 2008.
- [791] Jean Bourgain. An approach to Wegner’s estimate using subharmonicity. *J. Stat. Phys.*, 134(5-6):969–978, 2009.
- [792] Jean Bourgain. Expanders and dimensional expansion. *C. R. Math. Acad. Sci. Paris*, 347(7-8):357–362, 2009.
- [793] J. Bourgain. Geodesic restrictions and  $L^p$ -estimates for eigenfunctions of Riemannian surfaces. In *Linear and complex analysis*, volume 226 of *Amer. Math. Soc. Transl. Ser. 2*, pages 27–35. Amer. Math. Soc., Providence, RI, 2009.
- [794] Jean Bourgain. Multilinear exponential sums in prime fields under optimal entropy condition on the sources. *Geom. Funct. Anal.*, 18(5):1477–1502, 2009.
- [795] J. Bourgain. On the distribution of the residues of small multiplicative subgroups of  $F_p$ . *Israel J. Math.*, 172:61–74, 2009.
- [796] J. Bourgain. The sum-product phenomenon and some of its applications. In *Analytic number theory*, pages 62–74. Cambridge Univ. Press, Cambridge, 2009.
- [797] Jean Bourgain. The discretized sum-product and projection theorems. *J. Anal. Math.*, 112:193–236, 2010.
- [798] J. Bourgain. Estimates on polynomial exponential sums. *Israel J. Math.*, 176:221–240, 2010.
- [799] Jean Bourgain. New developments in combinatorial number theory and applications. In *European Congress of Mathematics*, pages 233–251. Eur. Math. Soc., Zürich, 2010.
- [800] Jean Bourgain. On exponential sums in finite fields. In *An irregular mind*, volume 21 of *Bolyai Soc. Math. Stud.*, pages 219–242. János Bolyai Math. Soc., Budapest, 2010.
- [801] Jean Bourgain. Sum-product theorems and applications. In *Additive number theory*, pages 9–38. Springer, New York, 2010.
- [802] Jean Bourgain. Finitely supported measures on  $SL_2(R)$  which are absolutely continuous at infinity. In *Geometric aspects of functional analysis*, volume 2050 of *Lecture Notes in Math.*, pages 133–141. Springer, Heidelberg, 2012.
- [803] J. Bourgain. Integral Apollonian circle packings and prime curvatures. *J. Anal. Math.*, 118(1):221–249, 2012.

- [804] Jean Bourgain. A modular Szemerédi-Trotter theorem for hyperbolas. *C. R. Math. Acad. Sci. Paris*, 350(17-18):793–796, 2012.
- [805] Jean Bourgain. Möbius Schrödinger. In *Geometric aspects of functional analysis*, volume 2050 of *Lecture Notes in Math.*, pages 143–150. Springer, Heidelberg, 2012.
- [806] J. Bourgain. On the Furstenberg measure and density of states for the Anderson-Bernoulli model at small disorder. *J. Anal. Math.*, 117:273–295, 2012.
- [807] Jean Bourgain. Partial quotients and representation of rational numbers. *C. R. Math. Acad. Sci. Paris*, 350(15-16):727–730, 2012.
- [808] Jean Bourgain. Around the sum-product phenomenon. In *Erdős centennial*, volume 25 of *Bolyai Soc. Math. Stud.*, pages 111–128. János Bolyai Math. Soc., Budapest, 2013.
- [809] J. Bourgain. Corrigendum to “Apollonian circle packings and prime curvatures” [mr2993027]. *J. Anal. Math.*, 120:393, 2013.
- [810] J. Bourgain. A lower bound for the Lyapunov exponents of the random Schrödinger operator on a strip. *J. Stat. Phys.*, 153(1):1–9, 2013.
- [811] J. Bourgain. Möbius-Walsh correlation bounds and an estimate of Mauduit and Rivat. *J. Anal. Math.*, 119:147–163, 2013.
- [812] J. Bourgain. Moment inequalities for trigonometric polynomials with spectrum in curved hypersurfaces. *Israel J. Math.*, 193(1):441–458, 2013.
- [813] J. Bourgain. On the Schrödinger maximal function in higher dimension. *Tr. Mat. Inst. Steklova*, 280:53–66, 2013.
- [814] J. Bourgain. On the Lyapunov exponents of Schrödinger operators associated with the standard map. In *Asymptotic geometric analysis*, volume 68 of *Fields Inst. Commun.*, pages 39–44. Springer, New York, 2013.
- [815] J. Bourgain. On the correlation of the Möbius function with rank-one systems. *J. Anal. Math.*, 120:105–130, 2013.
- [816] J. Bourgain. On the Fourier-Walsh spectrum of the Möbius function. *Israel J. Math.*, 197(1):215–235, 2013.
- [817] Jean Bourgain. Prescribing the binary digits of primes. *Israel J. Math.*, 194(2):935–955, 2013.
- [818] J. Bourgain. An application of group expansion to the Anderson-Bernoulli model. *Geom. Funct. Anal.*, 24(1):49–62, 2014.
- [819] Jean Bourgain. An improved estimate in the restricted isometry problem. In *Geometric aspects of functional analysis*, volume 2116 of *Lecture Notes in Math.*, pages 65–70. Springer, Cham, 2014.
- [820] Jean Bourgain. Monotone Boolean functions capture their primes. *J. Anal. Math.*, 124:297–307, 2014.
- [821] Jean Bourgain. On toral eigenfunctions and the random wave model. *Israel J. Math.*, 201(2):611–630, 2014.
- [822] Jean Bourgain. On eigenvalue spacings for the 1-D Anderson model with singular site distribution. In *Geometric aspects of functional analysis*, volume 2116 of *Lecture Notes in Math.*, pages 71–83. Springer, Cham, 2014.
- [823] Jean Bourgain. On the Hardy-Littlewood maximal function for the cube. *Israel J. Math.*, 203(1):275–293, 2014.

- [824] Jean Bourgain. On oscillatory integral operators in higher dimensions. In *Advances in analysis: the legacy of Elias M. Stein*, volume 50 of *Princeton Math. Ser.*, pages 47–62. Princeton Univ. Press, Princeton, NJ, 2014.
- [825] Jean Bourgain. On the local eigenvalue spacings for certain Anderson-Bernoulli Hamiltonians. In *Geometric aspects of functional analysis*, volume 2116 of *Lecture Notes in Math.*, pages 85–96. Springer, Cham, 2014.
- [826] Jean Bourgain. On the control problem for Schrödinger operators on tori. In *Geometric aspects of functional analysis*, volume 2116 of *Lecture Notes in Math.*, pages 97–105. Springer, Cham, 2014.
- [827] Jean Bourgain. Some Diophantine applications of the theory of group expansion. In *Thin groups and superstrong approximation*, volume 61 of *Math. Sci. Res. Inst. Publ.*, pages 1–22. Cambridge Univ. Press, Cambridge, 2014.
- [828] Jean Bourgain. On Pleijel’s nodal domain theorem. *Int. Math. Res. Not. IMRN*, (6):1601–1612, 2015.
- [829] Jean Bourgain. Prescribing the binary digits of primes, II. *Israel J. Math.*, 206(1):165–182, 2015.
- [830] J. Bourgain. A remark on solutions of the Pell equation. *Int. Math. Res. Not. IMRN*, (10):2841–2855, 2015.
- [831] J. Bourgain. A note on the Schrödinger maximal function. *J. Anal. Math.*, 130:393–396, 2016.
- [832] Jean Bourgain. On the Fourier-Walsh spectrum of the Moebius function, II. *J. Anal. Math.*, 128:355–367, 2016.
- [833] Jean Bourgain. On uniformly bounded bases in spaces of holomorphic functions. *Amer. J. Math.*, 138(2):571–584, 2016.
- [834] Jean Bourgain. A quantitative Oppenheim theorem for generic diagonal quadratic forms. *Israel J. Math.*, 215(1):503–512, 2016.
- [835] Jean Bourgain. Decoupling inequalities and some mean-value theorems. *J. Anal. Math.*, 133:313–334, 2017.
- [836] J. Bourgain. Decoupling, exponential sums and the Riemann zeta function. *J. Amer. Math. Soc.*, 30(1):205–224, 2017.
- [837] Jean Bourgain. On random walks in large compact Lie groups. In *Geometric aspects of functional analysis*, volume 2169 of *Lecture Notes in Math.*, pages 55–63. Springer, Cham, 2017.
- [838] Jean Bourgain. On a problem of Farrell and Vershynin in random matrix theory. In *Geometric aspects of functional analysis*, volume 2169 of *Lecture Notes in Math.*, pages 65–69. Springer, Cham, 2017.
- [839] J. Bourgain. On a homogenization problem. *J. Stat. Phys.*, 172(2):314–320, 2018.
- [840] J. Bourgain. On quadratic irrationals with bounded partial quotients. *Selecta Math. (N.S.)*, 24(3):2831–2839, 2018.
- [841] J. Bourgain. Strongly exposed points in weakly compact convex sets in Banach spaces. *Proc. Amer. Math. Soc.*, 58:197–200, 1976.
- [842] J. Bourgain. Compact sets of first Baire class. *Bull. Soc. Math. Belg.*, 29(2):135–143, 1977.

- [843] J. Bourgain. On dentability and the Bishop-Phelps property. *Israel J. Math.*, 28(4):265–271, 1977.
- [844] J. Bourgain. An averaging result for  $c_0$ -sequences. *Bull. Soc. Math. Belg.*, 30(1):83–87, 1978.
- [845] J. Bourgain. A geometric characterization of the Radon-Nikodým property in Banach spaces. *Compositio Math.*, 36(1):3–6, 1978.
- [846] J. Bourgain. A note on extreme points in duals. *Bull. Soc. Math. Belg.*, 30(1):89–91, 1978.
- [847] J. Bourgain. On the representation of two-dimensional unconditional and symmetric norms. *Bull. Soc. Math. Belg.*, 30(2):121–133, 1978.
- [848] J. Bourgain. Some remarks on compact sets of first Baire class. *Bull. Soc. Math. Belg.*, 30(1):3–10, 1978.
- [849] Jean Bourgain. A stabilization property and its applications in the theory of sections. In *Séminaire Choquet, 17e année (1977/78), Initiation à l'analyse, Fasc. 1*, pages Exp. No. 5, 23. Secrétariat Math., Paris, 1978.
- [850] J. Bourgain. An averaging result for  $l^1$ -sequences and applications to weakly conditionally compact sets in  $L^1_X$ . *Israel J. Math.*, 32(4):289–298, 1979.
- [851] J. Bourgain. Decompositions in the product of a measure space and a Polish space. *Fund. Math.*, 105(1):61–71, 1979/80.
- [852] J. Bourgain. Dunford-Pettis operators on  $L^1$  and the Radon-Nikodým property. In *Initiation Seminar on Analysis: G. Choquet-M. Rogalski-J. Saint-Raymond, 18th Year: 1978/1979*, volume 29 of *Publ. Math. Univ. Pierre et Marie Curie*, pages Exp. No. 6, 17. Univ. Paris VI, Paris, 1979.
- [853] J. Bourgain. Un espace  $\mathcal{L}^{infty}$  jouissant de la propriété de Schur et de la propriété de Radon-Nikodým. In *Séminaire d'Analyse Fonctionnelle (1978–1979)*, pages Exp. No. 4, 7. École Polytech., Palaiseau, 1979.
- [854] J. Bourgain. Un espace non Radon-Nikodým sans arbre diadique. In *Séminaire d'Analyse Fonctionnelle (1978–1979)*, pages Exp. No. 29, 6. École Polytech., Palaiseau, 1979.
- [855] J. Bourgain. A note on the Lebesgue spaces of vector-valued functions. *Bull. Soc. Math. Belg. Sér. B*, 31(1):45–47, 1979.
- [856] J. Bourgain. A result on operators on  $C[0, 1]$ . In *Initiation Seminar on Analysis: G. Choquet-M. Rogalski-J. Saint-Raymond, 18th Year: 1978/1979*, volume 29 of *Publ. Math. Univ. Pierre et Marie Curie*, pages Exp. No. 10, 18. Univ. Paris VI, Paris, 1979.
- [857] J. Bourgain. Sets with the Radon-Nikodým property in conjugate Banach space. *Studia Math.*, 66(3):291–297, 1979/80.
- [858] J. Bourgain. The Szlenk index and operators on  $C(K)$ -spaces. *Bull. Soc. Math. Belg. Sér. B*, 31(1):87–117, 1979.
- [859] J. Bourgain. Borel sets with  $F_{\sigma\delta}$ -sections. *Fund. Math.*, 107(2):149–159, 1980.
- [860] J. Bourgain. A characterization of non-Dunford-Pettis operators on  $L^1$ . *Israel J. Math.*, 37(1-2):48–53, 1980.
- [861] J. Bourgain. Complémentation de sous-espaces  $L^1$  dans les espaces  $L^1$ . In *Seminar on Functional Analysis, 1979–1980 (French)*, pages Exp. No. 27, 7. École Polytech., Palaiseau, 1980.

- [862] J. Bourgain. Dentability and finite-dimensional decompositions. *Studia Math.*, 67(2):135–148, 1980.
- [863] J. Bourgain. Dunford-Pettis operators on  $L^1$  and the Radon-Nikodým property. *Israel J. Math.*, 37(1-2):34–47, 1980.
- [864] Jean Bourgain. Espaces  $L^1$  ne vérifiant pas la propriété de Radon-Nikodým. *C. R. Acad. Sci. Paris Sér. A-B*, 291(5):A343–A345, 1980.
- [865] J. Bourgain.  $F_{\sigma\delta}$ -sections of Borel sets. *Fund. Math.*, 107(2):129–133, 1980.
- [866] J. Bourgain.  $l^{infy}/c_0$  has no equivalent strictly convex norm. *Proc. Amer. Math. Soc.*, 78(2):225–226, 1980.
- [867] J. Bourgain. A nondentable set without the tree property. *Studia Math.*, 68(2):131–139, 1980.
- [868] J. Bourgain. Une nouvelle classe d’espaces  $\mathcal{L}^1$ . In *Seminar on Functional Analysis, 1979–1980 (French)*, pages Exp. No. 4B, 6. École Polytech., Palaiseau, 1980.
- [869] J. Bourgain. On separable Banach spaces, universal for all separable reflexive spaces. *Proc. Amer. Math. Soc.*, 79(2):241–246, 1980.
- [870] J. Bourgain. On convergent sequences of continuous functions. *Bull. Soc. Math. Belg. Sér. B*, 32(2):235–249, 1980.
- [871] J. Bourgain. On lacunary sets. *Bull. Soc. Math. Belg. Sér. B*, 32(1):29–32, 1980.
- [872] Jean Bourgain. Propriétés de relèvement et projections dans les espaces  $L^1/H_0^1$  et  $H^{infy}$ . *C. R. Acad. Sci. Paris Sér. A-B*, 291(11):A607–A609, 1980.
- [873] J. Bourgain. Remarks on the double dual of a Banach space. *Bull. Soc. Math. Belg. Sér. B*, 32(2):171–178, 1980.
- [874] J. Bourgain. A result on operators on  $C[0, 1]$ . *J. Operator Theory*, 3(2):275–289, 1980.
- [875] Jean Bourgain. Sous-espaces  $L^p$  invariants par translations sur le groupe de Cantor. *C. R. Acad. Sci. Paris Sér. A-B*, 291(1):A39–A40, 1980.
- [876] Jean Bourgain. Sur les isomorphismes entre espaces  $H^1$ . *C. R. Acad. Sci. Paris Sér. A-B*, 291(2):A111–A112, 1980.
- [877] J. Bourgain. Walsh subspaces of  $L^p$ -product spaces. In *Seminar on Functional Analysis, 1979–1980 (French)*, pages Exp. No. 4A, 9. École Polytech., Palaiseau, 1980.
- [878] J. Bourgain. A counterexample to a complementation problem. *Compositio Math.*, 43(1):133–144, 1981.
- [879] J. Bourgain. A new class of  $\mathcal{L}^1$ -spaces. *Israel J. Math.*, 39(1-2):113–126, 1981.
- [880] Jean Bourgain. *New classes of  $\mathcal{L}^p$ -spaces*, volume 889 of *Lecture Notes in Mathematics*. Springer-Verlag, Berlin-New York, 1981.
- [881] Jean Bourgain. Noncompleteness of some convergence on  $l^1$ . *Colloq. Math.*, 44(1):175–178, 1981.
- [882] Jean Bourgain. Normes absolument sommantes et sous-espaces  $l^{infy}$ . *C. R. Acad. Sci. Paris Sér. I Math.*, 292(15):719–721, 1981.
- [883] J. Bourgain. Nouvelles propriétés des espaces  $L^1/H_0^1$  et  $H^{infy}$ . In *Seminar on Functional Analysis, 1980–1981*, pages Exp. No. III, 13. École Polytech., Palaiseau, 1981.
- [884] J. Bourgain. On the Dunford-Pettis property. *Proc. Amer. Math. Soc.*, 81(2):265–272, 1981.

- [885] J. Bourgain. On trigonometric sums with prime frequencies. *Bull. Soc. Math. Belg. Sér. B*, 33(2):289–294, 1981.
- [886] J. Bourgain. On trigonometric series in super reflexive spaces. *J. London Math. Soc. (2)*, 24(1):165–174, 1981.
- [887] Jean Bourgain. Opérateurs sommants sur l’algèbre du disque. *C. R. Acad. Sci. Paris Sér. I Math.*, 293(15):677–680, 1981.
- [888] J. Bourgain. A stabilization property and its applications in the theory of sections. *Fund. Math.*, 112(1):25–44, 1981.
- [889] Jean Bourgain. Sur les projections dans  $H^{infy}$  et la propriété de Grothendieck. *C. R. Acad. Sci. Paris Sér. I Math.*, 293(1):47–49, 1981.
- [890] J. Bourgain. Unicité de certaines bases inconditionnelles. In *Seminar on Functional Analysis, 1980–1981*, pages Exp. No. IV, 9. École Polytech., Palaiseau, 1981.
- [891] J. Bourgain. A Hausdorff-Young inequality for  $B$ -convex Banach spaces. *Pacific J. Math.*, 101(2):255–262, 1982.
- [892] J. Bourgain. The nonisomorphism of  $H^1$ -spaces in one and several variables. *J. Functional Analysis*, 46(1):45–57, 1982.
- [893] J. Bourgain. On the embedding problem of  $L^1$  in  $L^1/H_0^1$ . *Bull. Soc. Math. Belg. Sér. B*, 34(2):187–194, 1982.
- [894] Jean Bourgain. Plongement de  $L^1$  dans l’espace  $L^1/H^1$ . *C. R. Acad. Sci. Paris Sér. I Math.*, 294(18):633–636, 1982.
- [895] Jean Bourgain. Quelques propriétés linéaires de l’espace des séries de Fourier uniformément convergentes. *C. R. Acad. Sci. Paris Sér. I Math.*, 295(11):623–625, 1982.
- [896] J. Bourgain. A remark on finite-dimensional  $P_\lambda$ -spaces. *Studia Math.*, 72(3):285–289, 1982.
- [897] J. Bourgain. Translation invariant complemented subspaces of  $L^p$ . *Studia Math.*, 75(1):95–101, 1982.
- [898] J. Bourgain. Embedding  $L^1$  in  $L^1/H^1$ . *Trans. Amer. Math. Soc.*, 278(2):689–702, 1983.
- [899] J. Bourgain.  $H^{infy}$  is a Grothendieck space. *Studia Math.*, 75(2):193–216, 1983.
- [900] J. Bourgain. The nonisomorphism of  $H^1$ -spaces in a different number of variables. *Bull. Soc. Math. Belg. Sér. B*, 35(2):127–136, 1983.
- [901] J. Bourgain. On the primarity of  $H^{infy}$ -spaces. *Israel J. Math.*, 45(4):329–336, 1983.
- [902] J. Bourgain. On weak completeness of the dual of spaces of analytic and smooth functions. *Bull. Soc. Math. Belg. Sér. B*, 35(1):111–118, 1983.
- [903] Jean Bourgain. Opérateurs sommants sur l’algèbre du disque. In *Seminar on the geometry of Banach spaces (Paris, 1982)*, volume 16 of *Publ. Math. Univ. Paris VII*, pages 11–17. Univ. Paris VII, Paris, 1983.
- [904] Jean Bourgain. Propriété de Grothendieck de  $H^{infy}$ . In *Seminar on the geometry of Banach spaces (Paris, 1982)*, volume 16 of *Publ. Math. Univ. Paris VII*, pages 19–27. Univ. Paris VII, Paris, 1983.
- [905] J. Bourgain. Propriétés de décomposition pour les ensembles de Sidon. *Bull. Soc. Math. France*, 111(4):421–428, 1983.



- [906] Jean Bourgain. Une remarque sur les ensembles stationnaires. In *Harmonic analysis: study group on translation-invariant Banach spaces*, volume 1 of *Publ. Math. Orsay 83*, pages Exp. No. 2, 6. Univ. Paris XI, Orsay, 1983.
- [907] J. Bourgain. Some remarks on Banach spaces in which martingale difference sequences are unconditional. *Ark. Mat.*, 21(2):163–168, 1983.
- [908] Jean Bourgain. Sur les ensembles d’interpolation pour les mesures discrètes. *C. R. Acad. Sci. Paris Sér. I Math.*, 296(3):149–151, 1983.
- [909] Jean Bourgain. Sur les sommes de sinus. In *Harmonic analysis: study group on translation-invariant Banach spaces*, volume 1 of *Publ. Math. Orsay 83*, pages Exp. No. 3, 9. Univ. Paris XI, Orsay, 1983.
- [910] J. Bourgain. A theorem on interpolating sequences in the disc. *Simon Stevin*, 57(1-2):145–155, 1983.
- [911] J. Bourgain. Bilinear forms on  $H^{infy}$  and bounded bianalytic functions. *Trans. Amer. Math. Soc.*, 286(1):313–337, 1984.
- [912] J. Bourgain. The dimension conjecture for polydisc algebras. *Israel J. Math.*, 48(4):289–304, 1984.
- [913] J. Bourgain. The Dunford-Pettis property for the ball-algebras, the polydisc-algebras and the Sobolev spaces. *Studia Math.*, 77(3):245–253, 1984.
- [914] J. Bourgain. Extension of a result of Benedek, Calderón and Panzone. *Ark. Mat.*, 22(1):91–95, 1984.
- [915] J. Bourgain.  $l^1$  sequences generated by Sidon sets. *J. London Math. Soc. (2)*, 29(2):283–288, 1984.
- [916] J. Bourgain. Martingale transforms and geometry of Banach spaces. In *Israel seminar on geometrical aspects of functional analysis (1983/84)*, pages XIV, 16. Tel Aviv Univ., Tel Aviv, 1984.
- [917] J. Bourgain. New Banach space properties of certain spaces of analytic functions. In *Proceedings of the International Congress of Mathematicians, Vol. 1, 2 (Warsaw, 1983)*, pages 945–951. PWN, Warsaw, 1984.
- [918] J. Bourgain. New Banach space properties of the disc algebra and  $H^{infy}$ . *Acta Math.*, 152(1-2):1–48, 1984.
- [919] J. Bourgain. On nonisomorphisms of algebras of analytic functions. In *Proceedings of the second international conference on operator algebras, ideals, and their applications in theoretical physics (Leipzig, 1983)*, volume 67 of *Teubner-Texte Math.*, pages 145–154. Teubner, Leipzig, 1984.
- [920] J. Bourgain. On bases in the disc algebra. *Trans. Amer. Math. Soc.*, 285(1):133–139, 1984.
- [921] J. Bourgain. On martingales transforms in finite-dimensional lattices with an appendix on the  $K$ -convexity constant. *Math. Nachr.*, 119:41–53, 1984.
- [922] Jean Bourgain. Propriété d’Orlicz et ensembles de Sidon. In *Harmonic analysis: study group on translation-invariant Banach spaces*, volume 84-1 of *Publ. Math. Orsay*, pages Exp. No. 3, 10. Univ. Paris XI, Orsay, 1984.
- [923] J. Bourgain. Some properties of sets satisfying  $A(E) = B_0(E)$ . *Bull. Soc. Math. Belg. Sér. B*, 36:171–191, 1984.

- [924] J. Bourgain. Sur l'approximation dans  $H^n$ . In *Seminar on the geometry of Banach spaces, Vol. I, II (Paris, 1983)*, volume 18 of *Publ. Math. Univ. Paris VII*, pages 235–254. Univ. Paris VII, Paris, 1984.
- [925] Jean Bourgain. Sur le minimum de certaines sommes de cosinus. In *Harmonic analysis: study group on translation-invariant Banach spaces*, volume 84-1 of *Publ. Math. Orsay*, pages Exp. No. 2, 7. Univ. Paris XI, Orsay, 1984.
- [926] J. Bourgain. Vector valued singular integrals and the  $H^1$ -BMO duality. In *Israel seminar on geometrical aspects of functional analysis (1983/84)*, pages XVI, 23. Tel Aviv Univ., Tel Aviv, 1984.
- [927] J. Bourgain. Applications of the spaces of homogeneous polynomials to some problems on the ball algebra. *Proc. Amer. Math. Soc.*, 93(2):277–283, 1985.
- [928] J. Bourgain. Convex sets and maximal operators. In *Texas functional analysis seminar 1984–1985 (Austin, Tex.)*, Longhorn Notes, pages 131–139. Univ. Texas Press, Austin, TX, 1985.
- [929] Jean Bourgain. Estimations de certaines fonctions maximales. *C. R. Acad. Sci. Paris Sér. I Math.*, 301(10):499–502, 1985.
- [930] Jean Bourgain. On finitely generated closed ideals in  $H^n(D)$ . *Ann. Inst. Fourier (Grenoble)*, 35(4):163–174, 1985.
- [931] J. Bourgain. On square functions on the trigonometric system. *Bull. Soc. Math. Belg. Sér. B*, 37(1):20–26, 1985.
- [932] J. Bourgain. On the dichotomy problem in harmonic analysis. In *Texas functional analysis seminar 1984–1985 (Austin, Tex.)*, Longhorn Notes, pages 125–129. Univ. Texas Press, Austin, TX, 1985.
- [933] J. Bourgain. On Lipschitz embedding of finite metric spaces in Hilbert space. *Israel J. Math.*, 52(1-2):46–52, 1985.
- [934] Jean Bourgain. Sidon sets and Riesz products. *Ann. Inst. Fourier (Grenoble)*, 35(1):137–148, 1985.
- [935] J. Bourgain. Some remarks on the Banach space structure of the ball-algebras. In *Banach spaces (Columbia, Mo., 1984)*, volume 1166 of *Lecture Notes in Math.*, pages 4–10. Springer, Berlin, 1985.
- [936] J. Bourgain. Some results on the bidisc algebra. Number 131, pages 279–298. 1985. Colloquium in honor of Laurent Schwartz, Vol. 1 (Palaiseau, 1983).
- [937] J. Bourgain. Subspaces of  $l_N^n$ , arithmetical diameter and Sidon sets. In *Probability in Banach spaces, V (Medford, Mass., 1984)*, volume 1153 of *Lecture Notes in Math.*, pages 96–127. Springer, Berlin, 1985.
- [938] J. Bourgain. Averages in the plane over convex curves and maximal operators. *J. Analyse Math.*, 47:69–85, 1986.
- [939] J. Bourgain. The metrical interpretation of superreflexivity in Banach spaces. *Israel J. Math.*, 56(2):222–230, 1986.
- [940] J. Bourgain. On the dichotomy problem for tensor algebras. *Trans. Amer. Math. Soc.*, 293(2):793–798, 1986.
- [941] J. Bourgain. On high-dimensional maximal functions associated to convex bodies. *Amer. J. Math.*, 108(6):1467–1476, 1986.

- [942] J. Bourgain. On the  $L^p$ -bounds for maximal functions associated to convex bodies in  $\mathbf{R}^n$ . *Israel J. Math.*, 54(3):257–265, 1986.
- [943] J. Bourgain. On the similarity problem for polynomially bounded operators on Hilbert space. *Israel J. Math.*, 54(2):227–241, 1986.
- [944] J. Bourgain. A problem of Douglas and Rudin on factorization. *Pacific J. Math.*, 121(1):47–50, 1986.
- [945] J. Bourgain. Real isomorphic complex Banach spaces need not be complex isomorphic. *Proc. Amer. Math. Soc.*, 96(2):221–226, 1986.
- [946] J. Bourgain. Sur le minimum d’une somme de cosinus. *Acta Arith.*, 45(4):381–389, 1986.
- [947] J. Bourgain. A Szemerédi type theorem for sets of positive density in  $\mathbf{R}^k$ . *Israel J. Math.*, 54(3):307–316, 1986.
- [948] Jean Bourgain. Translation invariant forms on  $L^p(G)$  ( $1 < p < \infty$ ). *Ann. Inst. Fourier (Grenoble)*, 36(1):97–104, 1986.
- [949] Jean Bourgain. Vector-valued singular integrals and the  $H^1$ -BMO duality. In *Probability theory and harmonic analysis (Cleveland, Ohio, 1983)*, volume 98 of *Monogr. Textbooks Pure Appl. Math.*, pages 1–19. Dekker, New York, 1986.
- [950] J. Bourgain. Construction of sets of positive measure not containing an affine image of a given infinite structures. *Israel J. Math.*, 60(3):333–344, 1987.
- [951] J. Bourgain. A density condition for analyticity of the restriction algebra. Appendix to: “On the dichotomy problem for tensor algebras” [Trans. Amer. Math. Soc. **293** (1986), no. 2, 793–798; MR0816324 (86m:43005)]. In *Geometrical aspects of functional analysis (1985/86)*, volume 1267 of *Lecture Notes in Math.*, pages 151–156. Springer, Berlin, 1987.
- [952] J. Bourgain. Geometry of Banach spaces and harmonic analysis. In *Proceedings of the International Congress of Mathematicians, Vol. 1, 2 (Berkeley, Calif., 1986)*, pages 871–878. Amer. Math. Soc., Providence, RI, 1987.
- [953] J. Bourgain. On the Hausdorff dimension of harmonic measure in higher dimension. *Invent. Math.*, 87(3):477–483, 1987.
- [954] Jean Bourgain. On pointwise ergodic theorems for arithmetic sets. *C. R. Acad. Sci. Paris Sér. I Math.*, 305(10):397–402, 1987.
- [955] J. Bourgain. On dimension free maximal inequalities for convex symmetric bodies in  $\mathbf{R}^n$ . In *Geometrical aspects of functional analysis (1985/86)*, volume 1267 of *Lecture Notes in Math.*, pages 168–176. Springer, Berlin, 1987.
- [956] J. Bourgain. On lattice packing of convex symmetric sets in  $\mathbf{R}^n$ . In *Geometrical aspects of functional analysis (1985/86)*, volume 1267 of *Lecture Notes in Math.*, pages 5–12. Springer, Berlin, 1987.
- [957] J. Bourgain. A remark on entropy of abelian groups and the invariant uniform approximation property. *Studia Math.*, 86(1):79–84, 1987.
- [958] J. Bourgain. Remarks on the extension of Lipschitz maps defined on discrete sets and uniform homeomorphisms. In *Geometrical aspects of functional analysis (1985/86)*, volume 1267 of *Lecture Notes in Math.*, pages 157–167. Springer, Berlin, 1987.
- [959] J. Bourgain. Ruzsa’s problem on sets of recurrence. *Israel J. Math.*, 59(2):150–166, 1987.
- [960] J. Bourgain. Almost sure convergence and bounded entropy. *Israel J. Math.*, 63(1):79–97, 1988.

- [961] J. Bourgain. An approach to pointwise ergodic theorems. In *Geometric aspects of functional analysis (1986/87)*, volume 1317 of *Lecture Notes in Math.*, pages 204–223. Springer, Berlin, 1988.
- [962] J. Bourgain. A nonlinear version of Roth’s theorem for sets of positive density in the real line. *J. Analyse Math.*, 50:169–181, 1988.
- [963] J. Bourgain. On finite-dimensional homogeneous Banach spaces. In *Geometric aspects of functional analysis (1986/87)*, volume 1317 of *Lecture Notes in Math.*, pages 232–238. Springer, Berlin, 1988.
- [964] J. Bourgain. On the pointwise ergodic theorem on  $L^p$  for arithmetic sets. *Israel J. Math.*, 61(1):73–84, 1988.
- [965] J. Bourgain. On the maximal ergodic theorem for certain subsets of the integers. *Israel J. Math.*, 61(1):39–72, 1988.
- [966] J. Bourgain. A remark on the uncertainty principle for Hilbertian basis. *J. Funct. Anal.*, 79(1):136–143, 1988.
- [967] J. Bourgain. Remarques sur les zonoides (projection bodies, etc.). In *Séminaire d’Analyse Fonctionnelle 1985/1986/1987*, volume 28 of *Publ. Math. Univ. Paris VII*, pages 171–186. Univ. Paris VII, Paris, 1988.
- [968] Jean Bourgain. Temps de retour pour les systèmes dynamiques. *C. R. Acad. Sci. Paris Sér. I Math.*, 306(12):483–485, 1988.
- [969] J. Bourgain. Vector-valued Hausdorff-Young inequalities and applications. In *Geometric aspects of functional analysis (1986/87)*, volume 1317 of *Lecture Notes in Math.*, pages 239–249. Springer, Berlin, 1988.
- [970] J. Bourgain. Almost sure convergence in ergodic theory. In *Almost everywhere convergence (Columbus, OH, 1988)*, pages 145–151. Academic Press, Boston, MA, 1989.
- [971] J. Bourgain. Bounded orthogonal systems and the  $\Lambda(p)$ -set problem. *Acta Math.*, 162(3-4):227–245, 1989.
- [972] J. Bourgain. Homogeneous polynomials on the ball and polynomial bases. *Israel J. Math.*, 68(3):327–347, 1989.
- [973] J. Bourgain. On the behavior of the constant in the Littlewood-Paley inequality. In *Geometric aspects of functional analysis (1987–88)*, volume 1376 of *Lecture Notes in Math.*, pages 202–208. Springer, Berlin, 1989.
- [974] J. Bourgain. On  $\Lambda(p)$ -subsets of squares. *Israel J. Math.*, 67(3):291–311, 1989.
- [975] J. Bourgain. On Kolmogorov’s rearrangement problem for orthogonal systems and Garsia’s conjecture. In *Geometric aspects of functional analysis (1987–88)*, volume 1376 of *Lecture Notes in Math.*, pages 209–250. Springer, Berlin, 1989.
- [976] Jean Bourgain. Pointwise ergodic theorems for arithmetic sets. *Inst. Hautes Études Sci. Publ. Math.*, (69):5–45, 1989. With an appendix by the author, Harry Furstenberg, Yitzhak Katznelson and Donald S. Ornstein.
- [977] J. Bourgain. A remark on the maximal function associated to an analytic vector field. In *Analysis at Urbana, Vol. I (Urbana, IL, 1986–1987)*, volume 137 of *London Math. Soc. Lecture Note Ser.*, pages 111–132. Cambridge Univ. Press, Cambridge, 1989.
- [978] J. Bourgain. Double recurrence and almost sure convergence. *J. Reine Angew. Math.*, 404:140–161, 1990.

- [1979] J. Bourgain. On arithmetic progressions in sums of sets of integers. In *A tribute to Paul Erdős*, pages 105–109. Cambridge Univ. Press, Cambridge, 1990.
- [1980] J. Bourgain. Problems of almost everywhere convergence related to harmonic analysis and number theory. *Israel J. Math.*, 71(1):97–127, 1990.
- [1981] J. Bourgain. The Riesz-Raikov theorem for algebraic numbers. In *Festschrift in honor of I. I. Piatetski-Shapiro on the occasion of his sixtieth birthday, Part II (Ramat Aviv, 1989)*, volume 3 of *Israel Math. Conf. Proc.*, pages 1–45. Weizmann, Jerusalem, 1990.
- [1982] J. Bourgain. Besicovitch type maximal operators and applications to Fourier analysis. *Geom. Funct. Anal.*, 1(2):147–187, 1991.
- [1983] J. Bourgain.  $L^p$ -estimates for oscillatory integrals in several variables. *Geom. Funct. Anal.*, 1(4):321–374, 1991.
- [1984] Jean Bourgain. On the restriction and multiplier problems in  $\mathbf{R}^3$ . In *Geometric aspects of functional analysis (1989–90)*, volume 1469 of *Lecture Notes in Math.*, pages 179–191. Springer, Berlin, 1991.
- [1985] J. Bourgain. On the distribution of polynomials on high-dimensional convex sets. In *Geometric aspects of functional analysis (1989–90)*, volume 1469 of *Lecture Notes in Math.*, pages 127–137. Springer, Berlin, 1991.
- [1986] J. Bourgain. On the Busemann-Petty problem for perturbations of the ball. *Geom. Funct. Anal.*, 1(1):1–13, 1991.
- [1987] J. Bourgain. Remarks on Montgomery’s conjectures on Dirichlet sums. In *Geometric aspects of functional analysis (1989–90)*, volume 1469 of *Lecture Notes in Math.*, pages 153–165. Springer, Berlin, 1991.
- [1988] Jean Bourgain. A remark on the behaviour of  $L^p$ -multipliers and the range of operators acting on  $L^p$ -spaces. *Israel J. Math.*, 79(2-3):193–206, 1992.
- [1989] J. Bourgain. A remark on Schrödinger operators. *Israel J. Math.*, 77(1-2):1–16, 1992.
- [1990] J. Bourgain. Some consequences of Pisier’s approach to interpolation. *Israel J. Math.*, 77(1-2):165–185, 1992.
- [1991] J. Bourgain. Convergence of ergodic averages on lattice random walks. *Illinois J. Math.*, 37(4):624–636, 1993.
- [1992] J. Bourgain. Eigenfunction bounds for the Laplacian on the  $n$ -torus. *Internat. Math. Res. Notices*, (3):61–66, 1993.
- [1993] J. Bourgain. Exponential sums and nonlinear Schrödinger equations. *Geom. Funct. Anal.*, 3(2):157–178, 1993.
- [1994] J. Bourgain. Fourier transform restriction phenomena for certain lattice subsets and applications to nonlinear evolution equations. I. Schrödinger equations. *Geom. Funct. Anal.*, 3(2):107–156, 1993.
- [1995] J. Bourgain. Fourier transform restriction phenomena for certain lattice subsets and applications to nonlinear evolution equations. II. The KdV-equation. *Geom. Funct. Anal.*, 3(3):209–262, 1993.
- [1996] J. Bourgain. On the radial variation of bounded analytic functions on the disc. *Duke Math. J.*, 69(3):671–682, 1993.
- [1997] J. Bourgain. On the distribution of Dirichlet sums. *J. Anal. Math.*, 60:21–32, 1993.

- [998] J. Bourgain. On the Cauchy problem for the Kadomtsev-Petviashvili equation. *Geom. Funct. Anal.*, 3(4):315–341, 1993.
- [999] J. Bourgain. On the spectral type of Ornstein’s class one transformations. *Israel J. Math.*, 84(1-2):53–63, 1993.
- [1000] Jean Bourgain. Approximation of solutions of the cubic nonlinear Schrödinger equations by finite-dimensional equations and nonsqueezing properties. *Internat. Math. Res. Notices*, (2):79–88, 1994.
- [1001] Jean Bourgain. Construction of quasi-periodic solutions for Hamiltonian perturbations of linear equations and applications to nonlinear PDE. *Internat. Math. Res. Notices*, (11):475ff., approx. 21 pp., 1994.
- [1002] J. Bourgain. A harmonic analysis approach to problems in nonlinear partial differential equations. In *First European Congress of Mathematics, Vol. I (Paris, 1992)*, volume 119 of *Progr. Math.*, pages 423–444. Birkhäuser, Basel, 1994.
- [1003] Jean Bourgain. Hausdorff dimension and distance sets. *Israel J. Math.*, 87(1-3):193–201, 1994.
- [1004] Jean Bourgain. On the Cauchy and invariant measure problem for the periodic Zakharov system. *Duke Math. J.*, 76(1):175–202, 1994.
- [1005] J. Bourgain. Periodic nonlinear Schrödinger equation and invariant measures. *Comm. Math. Phys.*, 166(1):1–26, 1994.
- [1006] J. Bourgain. Aspects of long time behaviour of solutions of nonlinear Hamiltonian evolution equations. *Geom. Funct. Anal.*, 5(2):105–140, 1995.
- [1007] J. Bourgain. Construction of periodic solutions of nonlinear wave equations in higher dimension. *Geom. Funct. Anal.*, 5(4):629–639, 1995.
- [1008] J. Bourgain. Estimates for cone multipliers. In *Geometric aspects of functional analysis (Israel, 1992–1994)*, volume 77 of *Oper. Theory Adv. Appl.*, pages 41–60. Birkhäuser, Basel, 1995.
- [1009] Jean Bourgain. Harmonic analysis and nonlinear partial differential equations. In *Proceedings of the International Congress of Mathematicians, Vol. 1, 2 (Zürich, 1994)*, pages 31–44. Birkhäuser, Basel, 1995.
- [1010] Jean Bourgain. On the Cauchy problem for periodic KdV-type equations. In *Proceedings of the Conference in Honor of Jean-Pierre Kahane (Orsay, 1993)*, pages 17–86, 1995.
- [1011] J. Bourgain. Remarks on Halasz-Montgomery type inequalities. In *Geometric aspects of functional analysis (Israel, 1992–1994)*, volume 77 of *Oper. Theory Adv. Appl.*, pages 25–39. Birkhäuser, Basel, 1995.
- [1012] Jean Bourgain. Some new estimates on oscillatory integrals. In *Essays on Fourier analysis in honor of Elias M. Stein (Princeton, NJ, 1991)*, volume 42 of *Princeton Math. Ser.*, pages 83–112. Princeton Univ. Press, Princeton, NJ, 1995.
- [1013] Jean Bourgain. Time evolution in Gibbs measures for the nonlinear Schrödinger equations. In *XIth International Congress of Mathematical Physics (Paris, 1994)*, pages 543–547. Int. Press, Cambridge, MA, 1995.
- [1014] J. Bourgain. Construction of approximative and almost periodic solutions of perturbed linear Schrödinger and wave equations. *Geom. Funct. Anal.*, 6(2):201–230, 1996.

- [1015] Jean Bourgain. Gibbs measures and quasi-periodic solutions for nonlinear Hamiltonian partial differential equations. In *The Gelfand Mathematical Seminars, 1993–1995*, Gelfand Math. Sem., pages 23–43. Birkhäuser Boston, Boston, MA, 1996.
- [1016] Jean Bourgain. Invariant measures for the 2D-defocusing nonlinear Schrödinger equation. *Comm. Math. Phys.*, 176(2):421–445, 1996.
- [1017] Jean Bourgain. On the growth in time of higher Sobolev norms of smooth solutions of Hamiltonian PDE. *Internat. Math. Res. Notices*, (6):277–304, 1996.
- [1018] Jean Bourgain. Spherical summation and uniqueness of multiple trigonometric series. *Internat. Math. Res. Notices*, (3):93–107, 1996.
- [1019] Jean Bourgain. Analysis results and problems related to lattice points on surfaces. In *Harmonic analysis and nonlinear differential equations (Riverside, CA, 1995)*, volume 208 of *Contemp. Math.*, pages 85–109. Amer. Math. Soc., Providence, RI, 1997.
- [1020] Jean Bourgain. Estimates related to sumfree subsets of sets of integers. *Israel J. Math.*, 97:71–92, 1997.
- [1021] Jean Bourgain. Gibbs measures, quasi-periodic solutions and nonlinear partial differential equations. In *The Legacy of Norbert Wiener: A Centennial Symposium (Cambridge, MA, 1994)*, volume 60 of *Proc. Sympos. Pure Math.*, pages 53–63. Amer. Math. Soc., Providence, RI, 1997.
- [1022] Jean Bourgain. Hamiltonian methods in nonlinear evolution equations. In *Fields Medallists' lectures*, volume 5 of *World Sci. Ser. 20th Century Math.*, pages 542–554. World Sci. Publ., River Edge, NJ, 1997.
- [1023] J. Bourgain. Invariant measures for the Gross-Piatevskii equation. *J. Math. Pures Appl. (9)*, 76(8):649–702, 1997.
- [1024] Jean Bourgain. On the compactness of the support of solutions of dispersive equations. *Internat. Math. Res. Notices*, (9):437–447, 1997.
- [1025] J. Bourgain. On growth in time of Sobolev norms of smooth solutions of nonlinear Schrödinger equations in  $\mathbf{R}^D$ . *J. Anal. Math.*, 72:299–310, 1997.
- [1026] J. Bourgain. On Melnikov's persistency problem. *Math. Res. Lett.*, 4(4):445–458, 1997.
- [1027] J. Bourgain. Periodic Korteweg de Vries equation with measures as initial data. *Selecta Math. (N.S.)*, 3(2):115–159, 1997.
- [1028] Jean Bourgain. Quasi-periodic solutions of Hamiltonian evolution equations. In *Stochastic processes and functional analysis (Riverside, CA, 1994)*, volume 186 of *Lecture Notes in Pure and Appl. Math.*, pages 17–38. Dekker, New York, 1997.
- [1029] Jean Bourgain. On nonlinear Schrödinger equations. In *Les relations entre les mathématiques et la physique théorique*, pages 11–21. Inst. Hautes Études Sci., Bures-sur-Yvette, 1998.
- [1030] J. Bourgain. Quasi-periodic solutions of Hamiltonian perturbations of 2D linear Schrödinger equations. *Ann. of Math. (2)*, 148(2):363–439, 1998.
- [1031] J. Bourgain. Refinements of Strichartz' inequality and applications to 2d-NLS with critical nonlinearity. *Internat. Math. Res. Notices*, (5):253–283, 1998.
- [1032] J. Bourgain. Scattering in the energy space and below for 3D NLS. *J. Anal. Math.*, 75:267–297, 1998.

- [1033] J. Bourgain. *Global solutions of nonlinear Schrödinger equations*, volume 46 of *American Mathematical Society Colloquium Publications*. American Mathematical Society, Providence, RI, 1999.
- [1034] J. Bourgain. Global wellposedness of defocusing critical nonlinear Schrödinger equation in the radial case. *J. Amer. Math. Soc.*, 12(1):145–171, 1999.
- [1035] J. Bourgain. Growth of Sobolev norms in linear Schrödinger equations with quasi-periodic potential. *Comm. Math. Phys.*, 204(1):207–247, 1999.
- [1036] Jean Bourgain. Nonlinear Schrödinger equations. In *Hyperbolic equations and frequency interactions (Park City, UT, 1995)*, volume 5 of *IAS/Park City Math. Ser.*, pages 3–157. Amer. Math. Soc., Providence, RI, 1999.
- [1037] J. Bourgain. On triples in arithmetic progression. *Geom. Funct. Anal.*, 9(5):968–984, 1999.
- [1038] J. Bourgain. On growth of Sobolev norms in linear Schrödinger equations with smooth time dependent potential. *J. Anal. Math.*, 77:315–348, 1999.
- [1039] J. Bourgain. On the dimension of Kakeya sets and related maximal inequalities. *Geom. Funct. Anal.*, 9(2):256–282, 1999.
- [1040] Jean Bourgain. Periodic solutions of nonlinear wave equations. In *Harmonic analysis and partial differential equations (Chicago, IL, 1996)*, Chicago Lectures in Math., pages 69–97. Univ. Chicago Press, Chicago, IL, 1999.
- [1041] Jean Bourgain. Random points in isotropic convex sets. In *Convex geometric analysis (Berkeley, CA, 1996)*, volume 34 of *Math. Sci. Res. Inst. Publ.*, pages 53–58. Cambridge Univ. Press, Cambridge, 1999.
- [1042] Solesne Bourguin and Ivan Nourdin. Freeness characterizations on free chaos spaces. *Pacific J. Math.*, 305(2):447–472, 2020.
- [1043] J. Bouttier. Enumeration of maps. In *The Oxford handbook of random matrix theory*, pages 534–556. Oxford Univ. Press, Oxford, 2011.
- [1044] Anton Bovier and Irina Kurkova. Derrida’s generalised random energy models. I. Models with finitely many hierarchies. *Ann. Inst. H. Poincaré Probab. Statist.*, 40(4):439–480, 2004.
- [1045] Anton Bovier. *Statistical mechanics of disordered systems*, volume 18 of *Cambridge Series in Statistical and Probabilistic Mathematics*. Cambridge University Press, Cambridge, 2006. A mathematical perspective.
- [1046] B. L. J. Braaksma. Asymptotic expansions and analytic continuations for a class of Barnes-integrals. *Compositio Math.*, 15:239–341 (1964), 1964.
- [1047] Ronald N. Bracewell. *The Fourier transform and its applications*. McGraw-Hill Series in Electrical Engineering. Circuits and Systems. McGraw-Hill Book Co., New York, third edition, 1986.
- [1048] Richard C. Bradley. *Introduction to strong mixing conditions. Vol. 2*. Kendrick Press, Heber City, UT, 2007.
- [1049] Maury Bramson, Jian Ding, and Ofer Zeitouni. Convergence in law of the maximum of nonlattice branching random walk. *Ann. Inst. Henri Poincaré Probab. Stat.*, 52(4):1897–1924, 2016.
- [1050] Maury Bramson, Jian Ding, and Ofer Zeitouni. Convergence in law of the maximum of the two-dimensional discrete Gaussian free field. *Comm. Pure Appl. Math.*, 69(1):62–123, 2016.



- [1051] Maury Bramson, Ofer Zeitouni, and Martin P. W. Zerner. Shortest spanning trees and a counterexample for random walks in random environments. *Ann. Probab.*, 34(3):821–856, 2006.
- [1052] Maury Bramson and Ofer Zeitouni. Tightness for the minimal displacement of branching random walk. *J. Stat. Mech. Theory Exp.*, (7):P07010, 12, 2007.
- [1053] Maury Bramson and Ofer Zeitouni. Tightness for a family of recursion equations. *Ann. Probab.*, 37(2):615–653, 2009.
- [1054] Maury Bramson and Ofer Zeitouni. Tightness of the recentered maximum of the two-dimensional discrete Gaussian free field. *Comm. Pure Appl. Math.*, 65(1):1–20, 2012.
- [1055] Herm Jan Brascamp and Elliott H. Lieb. Best constants in Young’s inequality, its converse, and its generalization to more than three functions. *Advances in Math.*, 20(2):151–173, 1976.
- [1056] Herm Jan Brascamp and Elliott H. Lieb. On extensions of the Brunn-Minkowski and Prékopa-Leindler theorems, including inequalities for log concave functions, and with an application to the diffusion equation. *J. Functional Analysis*, 22(4):366–389, 1976.
- [1057] Charles-Edouard Bréhier, Martin Hairer, and Andrew M. Stuart. Weak error estimates for trajectories of SPDEs under spectral Galerkin discretization. *J. Comput. Math.*, 36(2):159–182, 2018.
- [1058] Alberto Bressan. Stable blow-up patterns. *J. Differential Equations*, 98(1):57–75, 1992.
- [1059] D. M. Bressoud. Combinatorial analysis. In *NIST handbook of mathematical functions*, pages 618–636. U.S. Dept. Commerce, Washington, DC, 2010.
- [1060] Jean-Christophe Breton, Ivan Nourdin, and Giovanni Peccati. Exact confidence intervals for the Hurst parameter of a fractional Brownian motion. *Electron. J. Stat.*, 3:416–425, 2009.
- [1061] Jean-Christophe Breton and Ivan Nourdin. Error bounds on the non-normal approximation of Hermite power variations of fractional Brownian motion. *Electron. Commun. Probab.*, 13:482–493, 2008.
- [1062] Jonathan Breuer, Barry Simon, and Ofer Zeitouni. Large deviations and the Lukic conjecture. *Duke Math. J.*, 167(15):2857–2902, 2018.
- [1063] Jonathan Breuer, Barry Simon, and Ofer Zeitouni. Large deviations and sum rules for spectral theory: a pedagogical approach. *J. Spectr. Theory*, 8(4):1551–1581, 2018.
- [1064] E. Brézin and S. Hikami. Characteristic polynomials. In *The Oxford handbook of random matrix theory*, pages 398–414. Oxford Univ. Press, Oxford, 2011.
- [1065] É. Brézin, V. A. Kazakov, and Al. B. Zamolodchikov. Scaling violation in a field theory of closed strings in one physical dimension. *Nuclear Phys. B*, 338(3):673–688, 1990.
- [1066] Haïm Brezis, Thierry Cazenave, Yvan Martel, and Arthur Ramiandrisoa. Blow up for  $u_t - \Delta u = g(u)$  revisited. *Adv. Differential Equations*, 1(1):73–90, 1996.
- [1067] H. Brezis, L. A. Peletier, and D. Terman. A very singular solution of the heat equation with absorption. *Arch. Rational Mech. Anal.*, 95(3):185–209, 1986.
- [1068] Haim Brezis and Juan Luis Vázquez. Blow-up solutions of some nonlinear elliptic problems. *Rev. Mat. Univ. Complut. Madrid*, 10(2):443–469, 1997.
- [1069] Bjoern Bringmann. Invariant Gibbs measures for the three-dimensional wave equation with a Hartree nonlinearity I: measures. *Stoch. Partial Differ. Equ. Anal. Comput.*, 10(1):1–89, 2022.

- [1070] Chris Brislawn. Traceable integral kernels on countably generated measure spaces. *Pacific J. Math.*, 150(2):229–240, 1991.
- [1071] Yannic Bröker and Chiranjib Mukherjee. Localization of the Gaussian multiplicative chaos in the Wiener space and the stochastic heat equation in strong disorder. *Ann. Appl. Probab.*, 29(6):3745–3785, 2019.
- [1072] G. A. Brosamler. Laws of the iterated logarithm for Brownian motions on compact manifolds. *Z. Wahrsch. Verw. Gebiete*, 65(1):99–114, 1983.
- [1073] Christian Brownlees, Eulàlia Nualart, and Yucheng Sun. Realized networks. *J. Appl. Econometrics*, 33(7):986–1006, 2018.
- [1074] Christian Brownlees, Eulalia Nualart, and Yucheng Sun. On the estimation of integrated volatility in the presence of jumps and microstructure noise. *Econometric Rev.*, 39(10):991–1013, 2020.
- [1075] Th. Brox. A one-dimensional diffusion process in a Wiener medium. *Ann. Probab.*, 14(4):1206–1218, 1986.
- [1076] Y. Bruned, A. Chandra, I. Chevyrev, and M. Hairer. Renormalising SPDEs in regularity structures. *J. Eur. Math. Soc. (JEMS)*, 23(3):869–947, 2021.
- [1077] Y. Bruned, F. Gabriel, M. Hairer, and L. Zambotti. Geometric stochastic heat equations. *J. Amer. Math. Soc.*, 35(1):1–80, 2021.
- [1078] Y. Bruned, M. Hairer, and L. Zambotti. Algebraic renormalisation of regularity structures. *Invent. Math.*, 215(3):1039–1156, 2019.
- [1079] Yvain Bruned, Martin Hairer, and Lorenzo Zambotti. Renormalisation of stochastic partial differential equations. *Eur. Math. Soc. Newsl.*, (115):7–11, 2020.
- [1080] Éric Brunet and Bernard Derrida. Ground state energy of a non-integer number of particles with  $\delta$  attractive interactions. *Phys. A: Stat. Mech. Appl.*, 279(1):398–407, 2000.
- [1081] Éric Brunet and Bernard Derrida. Probability distribution of the free energy of a directed polymer in a random medium. *Phys. Rev. E (3)*, 61(6, part B):6789–6801, 2000.
- [1082] Yury A. Brychkov. *Handbook of special functions*. CRC Press, Boca Raton, FL, 2008. Derivatives, integrals, series and other formulas.
- [1083] David C. Brydges, Jürg Fröhlich, and Alan D. Sokal. A new proof of the existence and nontriviality of the continuum  $\varphi_2^4$  and  $\varphi_3^4$  quantum field theories. *Comm. Math. Phys.*, 91(2):141–186, 1983.
- [1084] David C. Brydges, G. Guadagni, and P. K. Mitter. Finite range decomposition of Gaussian processes. *J. Statist. Phys.*, 115(1-2):415–449, 2004.
- [1085] D. C. Brydges, P. K. Mitter, and B. Scoppola. Critical  $(\Phi^4)_{3,\epsilon}$ . *Comm. Math. Phys.*, 240(1-2):281–327, 2003.
- [1086] David C. Brydges and Ismael Muñoz Maya. An application of Berezin integration to large deviations. *J. Theoret. Probab.*, 4(2):371–389, 1991.
- [1087] David C. Brydges and Gordon Slade. A renormalisation group method. V. A single renormalisation group step. *J. Stat. Phys.*, 159(3):589–667, 2015.
- [1088] David Brydges and Thomas Spencer. Self-avoiding walk in 5 or more dimensions. *Comm. Math. Phys.*, 97(1-2):125–148, 1985.

- [1089] Z. Brzeźniak, S. Cerrai, and M. Freidlin. Quasipotential and exit time for 2D stochastic Navier-Stokes equations driven by space time white noise. *Probab. Theory Related Fields*, 162(3-4):739–793, 2015.
- [1090] Z. Brzeźniak and S. Cerrai. Large deviations principle for the invariant measures of the 2D stochastic Navier-Stokes equations on a torus. *J. Funct. Anal.*, 273(6):1891–1930, 2017.
- [1091] Zdzisław Brzeźniak and Dariusz Gatarek. Martingale solutions and invariant measures for stochastic evolution equations in Banach spaces. *Stochastic Process. Appl.*, 84(2):187–225, 1999.
- [1092] Zdzisław Brzeźniak, Ben Goldys, Peter Imkeller, Szymon Peszat, Enrico Priola, and Jerzy Zabczyk. Time irregularity of generalized Ornstein-Uhlenbeck processes. *C. R. Math. Acad. Sci. Paris*, 348(5-6):273–276, 2010.
- [1093] Zdzisław Brzeźniak and Martin Ondreját. Strong solutions to stochastic wave equations with values in Riemannian manifolds. *J. Funct. Anal.*, 253(2):449–481, 2007.
- [1094] Z. Brzeźniak and M. Ondreját. Weak solutions to stochastic wave equations with values in Riemannian manifolds. *Comm. Partial Differential Equations*, 36(9):1624–1653, 2011.
- [1095] Zdzisław Brzeźniak, Szymon Peszat, and Jerzy Zabczyk. Continuity of stochastic convolutions. *Czechoslovak Math. J.*, 51(126)(4):679–684, 2001.
- [1096] Zdzisław Brzeźniak and Szymon Peszat. Maximal inequalities and exponential estimates for stochastic convolutions in Banach spaces. In *Stochastic processes, physics and geometry: new interplays, I (Leipzig, 1999)*, volume 28 of *CMS Conf. Proc.*, pages 55–64. Amer. Math. Soc., Providence, RI, 2000.
- [1097] Zdzisław Brzeźniak and Szymon Peszat. Strong local and global solutions for stochastic Navier-Stokes equations. In *Infinite dimensional stochastic analysis (Amsterdam, 1999)*, volume 52 of *Verh. Afd. Natuurkd. 1. Reeks. K. Ned. Akad. Wet.*, pages 85–98. R. Neth. Acad. Arts Sci., Amsterdam, 2000.
- [1098] Zdzisław Brzeźniak and Szymon Peszat. Space-time continuous solutions to SPDE's driven by a homogeneous Wiener process. *Studia Math.*, 137(3):261–299, 1999.
- [1099] Zdzisław Brzeźniak and Jerzy Zabczyk. Regularity of Ornstein-Uhlenbeck processes driven by a Lévy white noise. *Potential Anal.*, 32(2):153–188, 2010.
- [1100] Zdzisław Brzeźniak. Some remarks on Itô and Stratonovich integration in 2-smooth Banach spaces. In *Probabilistic methods in fluids*, pages 48–69. World Sci. Publ., River Edge, NJ, 2003.
- [1101] Zdzisław Brzeźniak. Stochastic partial differential equations in M-type 2 Banach spaces. *Potential Anal.*, 4(1):1–45, 1995.
- [1102] Zdzisław Brzeźniak. On stochastic convolution in Banach spaces and applications. *Stochastics Stochastics Rep.*, 61(3-4):245–295, 1997.
- [1103] R. Buckdahn, P. Malliavin, and D. Nualart. Multidimensional linear stochastic differential equations in the Skorohod sense. *Stochastics Stochastics Rep.*, 62(1-2):117–145, 1997.
- [1104] Rainer Buckdahn and David Nualart. Skorohod stochastic differential equations with boundary conditions. *Stochastics Stochastics Rep.*, 45(3-4):211–235, 1993.
- [1105] R. Buckdahn and D. Nualart. Linear stochastic differential equations and Wick products. *Probab. Theory Related Fields*, 99(4):501–526, 1994.

- [1106] R. Buckdahn and É. Pardoux. Monotonicity methods for white noise driven quasi-linear SPDEs. In *Diffusion processes and related problems in analysis, Vol. I (Evanston, IL, 1989)*, volume 22 of *Progr. Probab.*, pages 219–233. Birkhäuser Boston, Boston, MA, 1990.
- [1107] C. J. Budd, J. W. Dold, and V. A. Galaktionov. Global blow-up for a semilinear heat equation on a subspace. *Proc. Roy. Soc. Edinburgh Sect. A*, 145(5):893–923, 2015.
- [1108] Chris Budd, Bill Dold, and Andrew Stuart. Blowup in a partial differential equation with conserved first integral. *SIAM J. Appl. Math.*, 53(3):718–742, 1993.
- [1109] Chris Budd and Victor Galaktionov. Stability and spectra of blow-up in problems with quasi-linear gradient diffusivity. *R. Soc. Lond. Proc. Ser. A Math. Phys. Eng. Sci.*, 454(1977):2371–2407, 1998.
- [1110] Chris J. Budd, Weizhang Huang, and Robert D. Russell. Moving mesh methods for problems with blow-up. *SIAM J. Sci. Comput.*, 17(2):305–327, 1996.
- [1111] Amarjit Budhiraja, Paul Dupuis, and Vasileios Maroulas. Large deviations for infinite dimensional stochastic dynamical systems. *Ann. Probab.*, 36(4):1390–1420, 2008.
- [1112] Amarjit Budhiraja and Paul Dupuis. A variational representation for positive functionals of infinite dimensional Brownian motion. *Probab. Math. Statist.*, 20(1, Acta Univ. Wratislav. No. 2246):39–61, 2000.
- [1113] E. Buffet, A. Patrick, and J. V. Pulé. Directed polymers on trees: a martingale approach. *J. Phys. A*, 26(8):1823–1834, 1993.
- [1114] Z. Burda and J. Jurkiewicz. Heavy-tailed random matrices. In *The Oxford handbook of random matrix theory*, pages 270–289. Oxford Univ. Press, Oxford, 2011.
- [1115] Krzysztof Burdzy and Davar Khoshnevisan. The level sets of iterated Brownian motion. In *Séminaire de Probabilités, XXIX*, volume 1613 of *Lecture Notes in Math.*, pages 231–236. Springer, Berlin, 1995.
- [1116] Krzysztof Burdzy and Davar Khoshnevisan. Brownian motion in a Brownian crack. *Ann. Appl. Probab.*, 8(3):708–748, 1998.
- [1117] K. Burdzy, C. Mueller, and E. A. Perkins. Nonuniqueness for nonnegative solutions of parabolic stochastic partial differential equations. *Illinois J. Math.*, 54(4):1481–1507 (2012), 2010.
- [1118] Krzysztof Burdzy and Leonid Mytnik. Super-Brownian motion with reflecting historical paths. II. Convergence of approximations. *Probab. Theory Related Fields*, 133(2):145–174, 2005.
- [1119] Krzysztof Burdzy, David Nualart, and Jason Swanson. Joint convergence along different subsequences of the signed cubic variation of fractional Brownian motion. *Probab. Theory Related Fields*, 159(1-2):237–272, 2014.
- [1120] Krzysztof Burdzy and David Nualart. Brownian motion reflected on Brownian motion. *Probab. Theory Related Fields*, 122(4):471–493, 2002.
- [1121] Krzysztof Burdzy and Jeremy Quastel. An annihilating-branching particle model for the heat equation with average temperature zero. *Ann. Probab.*, 34(6):2382–2405, 2006.
- [1122] Krzysztof Burdzy. Some path properties of iterated Brownian motion. In *Seminar on Stochastic Processes, 1992 (Seattle, WA, 1992)*, volume 33 of *Progr. Probab.*, pages 67–87. Birkhäuser Boston, Boston, MA, 1993.

- [1123] J. M. Burgers. A mathematical model illustrating the theory of turbulence. In *Advances in Applied Mechanics*, pages 171–199. Academic Press, Inc., New York, N.Y., 1948. edited by Richard von Mises and Theodore von Kármán,.
- [1124] Johannes Martinus Burgers. *The nonlinear diffusion equation*. Springer Science+Business Media Dordrecht, 1974. asymptotic solutions and statistical problems.
- [1125] Zh. Burgeuin and M. Z. Garaev. Sumsets of reciprocals in prime fields and multilinear Kloosterman sums. *Izv. Ross. Akad. Nauk Ser. Mat.*, 78(4):19–72, 2014.
- [1126] Zh. Burgeuin and B. S. Kashin. On the uniform approximation of the partial sum of the Dirichlet series by a shorter sum. *Mat. Zametki*, 87(2):309–310, 2010.
- [1127] Zh. Burgeuin and B. S. Kashin. Uniform approximation of a partial sum by a shorter sum and  $\Phi$ -widths. *Mat. Sb.*, 203(12):57–80, 2012.
- [1128] Zh. Burgeuin and Ya. G. Sinaui. Limit behavior of large Frobenius numbers. *Uspekhi Mat. Nauk*, 62(4(376)):77–90, 2007.
- [1129] Zh. Burgeuin. Recent progress in quasi-periodic lattice Schrödinger operators and Hamiltonian partial differential equations. *Uspekhi Mat. Nauk*, 59(2(356)):37–52, 2004.
- [1130] Zh. Burgeuin. On the Vinogradov integral. *Tr. Mat. Inst. Steklova*, 296:36–46, 2017. English version published in *Proc. Steklov Inst. Math.* **296** (2017), no. 1, 30–40.
- [1131] Zh. Burgeuin. Boundedness of variation of convolution of measures. *Mat. Zametki*, 54(4):24–33, 158, 1993.
- [1132] D. L. Burkholder, B. J. Davis, and R. F. Gundy. Integral inequalities for convex functions of operators on martingales. In *Proceedings of the Sixth Berkeley Symposium on Mathematical Statistics and Probability (Univ. California, Berkeley, Calif., 1970/1971), Vol. II: Probability theory*, pages 223–240. Univ. California Press, Berkeley, Calif., 1972.
- [1133] D. L. Burkholder and R. F. Gundy. Extrapolation and interpolation of quasi-linear operators on martingales. *Acta Math.*, 124:249–304, 1970.
- [1134] D. L. Burkholder. Martingale transforms. *Ann. Math. Statist.*, 37:1494–1504, 1966.
- [1135] Raphaël Butez and Ofer Zeitouni. Universal large deviations for Kac polynomials. *Electron. Commun. Probab.*, 22:Paper No. 6, 10, 2017.
- [1136] Oleg Butkovsky and Leonid Mytnik. Regularization by noise and flows of solutions for a stochastic heat equation. *Ann. Probab.*, 47(1):165–212, 2019.
- [1137] María Emilia Caballero, Begoña Fernández, and David Nualart. Smoothness of distributions for solutions of anticipating stochastic differential equations. *Stochastics Stochastics Rep.*, 52(3-4):303–322, 1995.
- [1138] María Emilia Caballero, Begoña Fernández, and David Nualart. Composition of skeletons and support theorems. In *Stochastic differential and difference equations (Győr, 1996)*, volume 23 of *Progr. Systems Control Theory*, pages 21–33. Birkhäuser Boston, Boston, MA, 1997.
- [1139] María Emilia Caballero, Begoña Fernández, and David Nualart. Estimation of densities and applications. *J. Theoret. Probab.*, 11(3):831–851, 1998.
- [1140] Agnese Cadel, Samy Tindel, and Frederi Viens. Sharp asymptotics for the partition function of some continuous-time directed polymers. *Potential Anal.*, 29(2):139–166, 2008.
- [1141] Mattia Cafasso and Tom Claeys. A Riemann-Hilbert approach to the lower tail of the Kardar-Parisi-Zhang equation. *Comm. Pure Appl. Math.*, 75(3):493–540, 2022.

- [1142] Luis A. Caffarelli and Avner Friedman. Differentiability of the blow-up curve for one-dimensional nonlinear wave equations. *Arch. Rational Mech. Anal.*, 91(1):83–98, 1985.
- [1143] Luis A. Caffarelli and Avner Friedman. The blow-up boundary for nonlinear wave equations. *Trans. Amer. Math. Soc.*, 297(1):223–241, 1986.
- [1144] Luis A. Caffarelli and Juan L. Vázquez. A free-boundary problem for the heat equation arising in flame propagation. *Trans. Amer. Math. Soc.*, 347(2):411–441, 1995.
- [1145] Meng Cai, Siqing Gan, and Yaozhong Hu. Weak convergence of the backward Euler method for stochastic Cahn-Hilliard equation with additive noise. *Appl. Numer. Math.*, 188:1–20, 2023.
- [1146] R. Cairoli and Robert C. Dalang. Optimal switching between two random walks. *Ann. Probab.*, 23(4):1982–2013, 1995.
- [1147] R. Cairoli and Robert C. Dalang. Optimal switching between two Brownian motions. In *Stochastic analysis (Ithaca, NY, 1993)*, volume 57 of *Proc. Sympos. Pure Math.*, pages 53–63. Amer. Math. Soc., Providence, RI, 1995.
- [1148] R. Cairoli and Robert C. Dalang. *Sequential stochastic optimization*. Wiley Series in Probability and Statistics: Probability and Statistics. John Wiley & Sons, Inc., New York, 1996. A Wiley-Interscience Publication.
- [1149] R. Cairoli and John B. Walsh. Stochastic integrals in the plane. *Acta Math.*, 134:111–183, 1975.
- [1150] R. Cairoli and J. B. Walsh. Martingale representations and holomorphic processes. *Ann. Probability*, 5(4):511–521, 1977.
- [1151] Pasquale Calabrese and Pierre Le Doussal. Interaction quench in a Lieb-Liniger model and the KPZ equation with flat initial conditions. *J. Stat. Mech. Theory Exp.*, (5):P05004, 19, 2014.
- [1152] J. Y. Calais and M. Yor. Renormalisation et convergence en loi pour certaines intégrales multiples associées au mouvement brownien dans  $\mathbf{R}^d$ . In *Séminaire de Probabilités, XXI*, volume 1247 of *Lecture Notes in Math.*, pages 375–403. Springer, Berlin, 1987.
- [1153] Darcy Camargo, Yuri Kifer, and Ofer Zeitouni. The Erdos-Rényi-Shepp law of large numbers for ballistic random walk in random environment. *Ann. Inst. Henri Poincaré Probab. Stat.*, 58(4):2347–2381, 2022.
- [1154] Stamatis Cambanis and Yaozhong Hu. Exact convergence rate of the Euler-Maruyama scheme, with application to sampling design. *Stochastics Stochastics Rep.*, 59(3-4):211–240, 1996.
- [1155] Simon Campese, Ivan Nourdin, Giovanni Peccati, and Guillaume Poly. Multivariate Gaussian approximations on Markov chaoses. *Electron. Commun. Probab.*, 21:Paper No. 48, 9, 2016.
- [1156] Simon Campese, Ivan Nourdin, and David Nualart. Continuous Breuer-Major theorem: tightness and nonstationarity. *Ann. Probab.*, 48(1):147–177, 2020.
- [1157] David Campos, Alexander Drewitz, Alejandro F. Ramírez, Firas Rassoul-Agha, and Timo Seppäläinen. Level 1 quenched large deviation principle for random walk in dynamic random environment. *Bull. Inst. Math. Acad. Sin. (N.S.)*, 8(1):1–29, 2013.
- [1158] David Candil, Le Chen, and Cheuk Yin Lee. Parabolic stochastic pdes on bounded domains with rough initial conditions: moment and correlation bounds. *preprint arXiv:2301.06435*, to appear in *Stoch. Partial Differ. Equ. Anal. Comput.*, January 2023.

- [1159] David Jean-Michel Candil. Localization errors of the stochastic heat equation. page 221, 2022.
- [1160] Piermarco Cannarsa and Carlo Sinestrari. *Semiconcave functions, Hamilton-Jacobi equations, and optimal control*, volume 58 of *Progress in Nonlinear Differential Equations and their Applications*. Birkhäuser Boston, Inc., Boston, MA, 2004.
- [1161] Giuseppe Cannizzaro and Khalil Chouk. Multidimensional SDEs with singular drift and universal construction of the polymer measure with white noise potential. *Ann. Probab.*, 46(3):1710–1763, 2018.
- [1162] Giuseppe Cannizzaro, Dirk Erhard, and Philipp Schönbauer. 2D anisotropic KPZ at stationarity: scaling, tightness and nontriviality. *Ann. Probab.*, 49(1):122–156, 2021.
- [1163] G. Cannizzaro, P. K. Friz, and P. Gassiat. Malliavin calculus for regularity structures: the case of gPAM. *J. Funct. Anal.*, 272(1):363–419, 2017.
- [1164] G. Cannizzaro and K. Matetski. Space-time discrete KPZ equation. *Comm. Math. Phys.*, 358(2):521–588, 2018.
- [1165] Jason Cantarella, Bertrand Duplantier, Clayton Shonkwiler, and Erica Uehara. A fast direct sampling algorithm for equilateral closed polygons. *J. Phys. A*, 49(27):275202, 9, 2016.
- [1166] V. Capasso, E. Merzbach, B. G. Ivanoff, M. Dozzi, R. C. Dalang, and T. S. Mountford. *Topics in spatial stochastic processes*, volume 1802 of *Lecture Notes in Mathematics*. Springer-Verlag, Berlin, 2003. Lectures given at the C.I.M.E. Summer School on Spatial Stochastic Processes held in Martina Franca, July 1–8, 2001, Edited by Ely Merzbach.
- [1167] Mireille Capitaine, Elton P. Hsu, and Michel Ledoux. Martingale representation and a simple proof of logarithmic Sobolev inequalities on path spaces. *Electron. Comm. Probab.*, 2:71–81, 1997.
- [1168] Michele Caputo. Linear models of dissipation whose  $q$  is almost frequency independent–II. *Geophysical Journal International*, 13(5):529–539, 11 1967.
- [1169] Francesco Caravenna, Philippe Carmona, and Nicolas Pétrélis. The discrete-time parabolic Anderson model with heavy-tailed potential. *Ann. Inst. Henri Poincaré Probab. Stat.*, 48(4):1049–1080, 2012.
- [1170] Francesco Caravenna and Loïc Chaumont. Invariance principles for random walks conditioned to stay positive. *Ann. Inst. Henri Poincaré Probab. Stat.*, 44(1):170–190, 2008.
- [1171] Francesco Caravenna and Loïc Chaumont. An invariance principle for random walk bridges conditioned to stay positive. *Electron. J. Probab.*, 18:no. 60, 32, 2013.
- [1172] Francesco Caravenna and Jacopo Corbetta. General smile asymptotics with bounded maturity. *SIAM J. Financial Math.*, 7(1):720–759, 2016.
- [1173] Francesco Caravenna and Jacopo Corbetta. The asymptotic smile of a multiscaling stochastic volatility model. *Stochastic Process. Appl.*, 128(3):1034–1071, 2018.
- [1174] Francesco Caravenna and Francesca Cottini. Gaussian limits for subcritical chaos. *Electron. J. Probab.*, 27:Paper No. 81, 35, 2022.
- [1175] Francesco Caravenna and Jean-Dominique Deuschel. Pinning and wetting transition for  $(1 + 1)$ -dimensional fields with Laplacian interaction. *Ann. Probab.*, 36(6):2388–2433, 2008.
- [1176] Francesco Caravenna and Jean-Dominique Deuschel. Scaling limits of  $(1 + 1)$ -dimensional pinning models with Laplacian interaction. *Ann. Probab.*, 37(3):903–945, 2009.

- [1177] Francesco Caravenna and Ron Doney. Local large deviations and the strong renewal theorem. *Electron. J. Probab.*, 24:Paper No. 72, 48, 2019.
- [1178] Francesco Caravenna, Alessandro Garavaglia, and Remco van der Hofstad. Diameter in ultra-small scale-free random graphs. *Random Structures Algorithms*, 54(3):444–498, 2019.
- [1179] Francesco Caravenna, Giambattista Giacomin, and Massimiliano Gubinelli. A numerical approach to copolymers at selective interfaces. *J. Stat. Phys.*, 122(4):799–832, 2006.
- [1180] Francesco Caravenna, Giambattista Giacomin, and Lorenzo Zambotti. Sharp asymptotic behavior for wetting models in  $(1 + 1)$ -dimension. *Electron. J. Probab.*, 11:no. 14, 345–362, 2006.
- [1181] F. Caravenna, G. Giacomin, and L. Zambotti. Infinite volume limits of polymer chains with periodic charges. *Markov Process. Related Fields*, 13(4):697–730, 2007.
- [1182] Francesco Caravenna, Giambattista Giacomin, and Lorenzo Zambotti. A renewal theory approach to periodic copolymers with adsorption. *Ann. Appl. Probab.*, 17(4):1362–1398, 2007.
- [1183] Francesco Caravenna, Giambattista Giacomin, and Massimiliano Gubinelli. Large scale behavior of semiflexible heteropolymers. *Ann. Inst. Henri Poincaré Probab. Stat.*, 46(1):97–118, 2010.
- [1184] Francesco Caravenna, Giambattista Giacomin, and Fabio Lucio Toninelli. Copolymers at selective interfaces: settled issues and open problems. In *Probability in complex physical systems*, volume 11 of *Springer Proc. Math.*, pages 289–311. Springer, Heidelberg, 2012.
- [1185] Francesco Caravenna and Giambattista Giacomin. On constrained annealed bounds for pinning and wetting models. *Electron. Comm. Probab.*, 10:179–189, 2005.
- [1186] Francesco Caravenna and Giambattista Giacomin. The weak coupling limit of disordered copolymer models. *Ann. Probab.*, 38(6):2322–2378, 2010.
- [1187] Francesco Caravenna, Frank den Hollander, and Nicolas Pétrelis. Lectures on random polymers. In *Probability and statistical physics in two and more dimensions*, volume 15 of *Clay Math. Proc.*, pages 319–393. Amer. Math. Soc., Providence, RI, 2012.
- [1188] F. Caravenna, F. den Hollander, N. Pétrelis, and J. Poisat. Annealed scaling for a charged polymer. *Math. Phys. Anal. Geom.*, 19(1):Art. 2, 87, 2016.
- [1189] Francesco Caravenna and Frank den Hollander. A general smoothing inequality for disordered polymers. *Electron. Commun. Probab.*, 18:no. 76, 15, 2013.
- [1190] Francesco Caravenna and Frank den Hollander. Phase transitions for spatially extended pinning. *Probab. Theory Related Fields*, 181(1-3):329–375, 2021.
- [1191] F. Caravenna and N. Pétrelis. Depinning of a polymer in a multi-interface medium. *Electron. J. Probab.*, 14:no. 70, 2038–2067, 2009.
- [1192] Francesco Caravenna and Nicolas Pétrelis. A polymer in a multi-interface medium. *Ann. Appl. Probab.*, 19(5):1803–1839, 2009.
- [1193] Francesco Caravenna, Rongfeng Sun, and Nikos Zygouras. The continuum disordered pinning model. *Probab. Theory Related Fields*, 164(1-2):17–59, 2016.
- [1194] Francesco Caravenna, Rongfeng Sun, and Nikos Zygouras. Polynomial chaos and scaling limits of disordered systems. *J. Eur. Math. Soc. (JEMS)*, 19(1):1–65, 2017.
- [1195] Francesco Caravenna, Rongfeng Sun, and Nikos Zygouras. Universality in marginally relevant disordered systems. *Ann. Appl. Probab.*, 27(5):3050–3112, 2017.



- [1196] Francesco Caravenna, Rongfeng Sun, and Nikos Zygouras. The Dickman subordinator, renewal theorems, and disordered systems. *Electron. J. Probab.*, 24:Paper No. 101, 40, 2019.
- [1197] Francesco Caravenna, Rongfeng Sun, and Nikos Zygouras. On the moments of the  $(2 + 1)$ -dimensional directed polymer and stochastic heat equation in the critical window. *Comm. Math. Phys.*, 372(2):385–440, 2019.
- [1198] Francesco Caravenna, Rongfeng Sun, and Nikos Zygouras. The two-dimensional KPZ equation in the entire subcritical regime. *Ann. Probab.*, 48(3):1086–1127, 2020.
- [1199] Francesco Caravenna, Rongfeng Sun, and Nikos Zygouras. The critical 2d stochastic heat flow. *preprint arXiv:2109.03766*, September 2021.
- [1200] Francesco Caravenna, Rongfeng Sun, and Nikos Zygouras. The critical 2d stochastic heat flow is not a gaussian multiplicative chaos. *preprint arXiv:2206.08766*, June 2022.
- [1201] Francesco Caravenna, Fabio Lucio Toninelli, and Niccolò Torri. Universality for the pinning model in the weak coupling regime. *Ann. Probab.*, 45(4):2154–2209, 2017.
- [1202] Francesco Caravenna and Lorenzo Zambotti. Hairer’s reconstruction theorem without regularity structures. *EMS Surv. Math. Sci.*, 7(2):207–251, 2020.
- [1203] Francesco Caravenna. A local limit theorem for random walks conditioned to stay positive. *Probab. Theory Related Fields*, 133(4):508–530, 2005.
- [1204] Francesco Caravenna. Polymer models and random walks. *Boll. Unione Mat. Ital. (9)*, 1(3):559–571, 2008.
- [1205] Francesco Caravenna. On the maximum of conditioned random walks and tightness for pinning models. *Electron. Commun. Probab.*, 23:Paper No. 69, 13, 2018.
- [1206] C. Cardon-Weber and A. Millet. On strongly Petrovskiui’s parabolic SPDEs in arbitrary dimension and application to the stochastic Cahn-Hilliard equation. *J. Theoret. Probab.*, 17(1):1–49, 2004.
- [1207] John L. Cardy. Conformal invariance and statistical mechanics. In *Champs, cordes et phénomènes critiques (Les Houches, 1988)*, pages 169–245. North-Holland, Amsterdam, 1990.
- [1208] John Cardy. *Scaling and renormalization in statistical physics*, volume 5 of *Cambridge Lecture Notes in Physics*. Cambridge University Press, Cambridge, 1996.
- [1209] E. A. Carlen, M. C. Carvalho, and E. Gabetta. Central limit theorem for Maxwellian molecules and truncation of the Wild expansion. *Comm. Pure Appl. Math.*, 53(3):370–397, 2000.
- [1210] Eric A. Carlen and Dario Cordero-Erausquin. Subadditivity of the entropy and its relation to Brascamp-Lieb type inequalities. *Geom. Funct. Anal.*, 19(2):373–405, 2009.
- [1211] Eric Carlen and Paul Krée.  $L^p$  estimates on iterated stochastic integrals. *Ann. Probab.*, 19(1):354–368, 1991.
- [1212] E. A. Carlen, E. H. Lieb, and M. Loss. A sharp analog of Young’s inequality on  $S^N$  and related entropy inequalities. *J. Geom. Anal.*, 14(3):487–520, 2004.
- [1213] B. C. Carlson. Elliptic integrals. In *NIST handbook of mathematical functions*, pages 485–522. U.S. Dept. Commerce, Washington, DC, 2010.
- [1214] Philippe Carmona, Francesco Guerra, Yueyun Hu, and Olivier Menjane. Strong disorder for a certain class of directed polymers in a random environment. *J. Theoret. Probab.*, 19(1):134–151, 2006.

- [1215] Philippe Carmona and Yueyun Hu. On the partition function of a directed polymer in a Gaussian random environment. *Probab. Theory Related Fields*, 124(3):431–457, 2002.
- [1216] Philippe Carmona and Yueyun Hu. Fluctuation exponents and large deviations for directed polymers in a random environment. *Stochastic Process. Appl.*, 112(2):285–308, 2004.
- [1217] Philippe Carmona and Yueyun Hu. Strong disorder implies strong localization for directed polymers in a random environment. *ALEA Lat. Am. J. Probab. Math. Stat.*, 2:217–229, 2006.
- [1218] Philippe Carmona and Yueyun Hu. Universality in Sherrington-Kirkpatrick’s spin glass model. *Ann. Inst. H. Poincaré Probab. Statist.*, 42(2):215–222, 2006.
- [1219] René Carmona, Leonid Korolov, and Stanislav Molchanov. Asymptotics for the almost sure Lyapunov exponent for the solution of the parabolic Anderson problem. *Random Oper. Stochastic Equations*, 9(1):77–86, 2001.
- [1220] René A. Carmona and S. A. Molchanov. Parabolic Anderson problem and intermittency. *Mem. Amer. Math. Soc.*, 108(518):viii+125, 1994.
- [1221] R. A. Carmona and S. A. Molchanov. Stationary parabolic Anderson model and intermittency. *Probab. Theory Related Fields*, 102(4):433–453, 1995.
- [1222] René Carmona and David Nualart. Random nonlinear wave equations: propagation of singularities. *Ann. Probab.*, 16(2):730–751, 1988.
- [1223] René Carmona and David Nualart. Random nonlinear wave equations: smoothness of the solutions. *Probab. Theory Related Fields*, 79(4):469–508, 1988.
- [1224] René A. Carmona and David Nualart. *Nonlinear stochastic integrators, equations and flows*, volume 6 of *Stochastics Monographs*. Gordon and Breach Science Publishers, New York, 1990.
- [1225] René A. Carmona and David Nualart. Traces of random variables on Wiener space and the Onsager-Machlup functional. *J. Funct. Anal.*, 107(2):402–438, 1992.
- [1226] René A. Carmona and Boris Rozovskii. *Stochastic partial differential equations: six perspectives*, volume 64 of *Mathematical Surveys and Monographs*. American Mathematical Society, Providence, RI, 1999.
- [1227] René Carmona, Frederi G. Viens, and S. A. Molchanov. Sharp upper bound on the almost-sure exponential behavior of a stochastic parabolic partial differential equation. *Random Oper. Stochastic Equations*, 4(1):43–49, 1996.
- [1228] René A. Carmona and Frederi G. Viens. Almost-sure exponential behavior of a stochastic Anderson model with continuous space parameter. *Stochastics Stochastics Rep.*, 62(3-4):251–273, 1998.
- [1229] Michael Caruana, Peter K. Friz, and Harald Oberhauser. A (rough) pathwise approach to a class of non-linear stochastic partial differential equations. *Ann. Inst. H. Poincaré Anal. Non Linéaire*, 28(1):27–46, 2011.
- [1230] Michael Caruana and Peter Friz. Partial differential equations driven by rough paths. *J. Differential Equations*, 247(1):140–173, 2009.
- [1231] Sérgio de Carvalho Bezerra and Samy Tindel. On the multiple overlap function of the SK model. *Publ. Mat.*, 51(1):163–199, 2007.
- [1232] Thomas Cass, Martin Hairer, Christian Litterer, and Samy Tindel. Smoothness of the density for solutions to Gaussian rough differential equations. *Ann. Probab.*, 43(1):188–239, 2015.
- [1233] Rémi Catellier and Khalil Chouk. Paracontrolled distributions and the 3-dimensional stochastic quantization equation. *Ann. Probab.*, 46(5):2621–2679, 2018.

- [1234] Patrick Cattiaux, Nathael Gozlan, Arnaud Guillin, and Cyril Roberto. Functional inequalities for heavy tailed distributions and application to isoperimetry. *Electron. J. Probab.*, 15:no. 13, 346–385, 2010.
- [1235] Patrick Cattiaux, Arnaud Guillin, and Li-Ming Wu. A note on Talagrand’s transportation inequality and logarithmic Sobolev inequality. *Probab. Theory Related Fields*, 148(1-2):285–304, 2010.
- [1236] Patrick Cattiaux and Arnaud Guillin. On quadratic transportation cost inequalities. *J. Math. Pures Appl. (9)*, 86(4):341–361, 2006.
- [1237] P. Cattiaux and A. Guillin. Semi log-concave Markov diffusions. In *Séminaire de Probabilités XLVI*, volume 2123 of *Lecture Notes in Math.*, pages 231–292. Springer, Cham, 2014.
- [1238] Elena Celledoni, Giulia Di Nunno, Kurusch Ebrahimi-Fard, and Hans Zanna Munthe-Kaas. *Computation and combinatorics in dynamics, stochastic and control*, volume 13 of *Abel Symposia*. Springer, Cham, 2018. The Abel Symposium, Rosendal, Norway, August 2016.
- [1239] Yücel Çenesiz, Ali Kurt, and Erkan Nane. Stochastic solutions of conformable fractional Cauchy problems. *Statist. Probab. Lett.*, 124:126–131, 2017.
- [1240] Sandra Cerrai and Philippe Clément. On a class of degenerate elliptic operators arising from Fleming-Viot processes. volume 1, pages 243–276. 2001. Dedicated to Ralph S. Phillips.
- [1241] Sandra Cerrai and Philippe Clément. Schauder estimates for a class of second order elliptic operators on a cube. *Bull. Sci. Math.*, 127(8):669–688, 2003.
- [1242] Sandra Cerrai and Philippe Clément. Well-posedness of the martingale problem for some degenerate diffusion processes occurring in dynamics of populations. *Bull. Sci. Math.*, 128(5):355–389, 2004.
- [1243] Sandra Cerrai and Philippe Clément. Corrigendum to: “Schauder estimates for a class of second order elliptic operators on a cube” [*Bull. Sci. Math.* **127** (2003), no. 8, 669–688; mr2014753]. *Bull. Sci. Math.*, 129(4):368, 2005.
- [1244] Sandra Cerrai and Philippe Clément. Schauder estimates for a degenerate second order elliptic operator on a cube. *J. Differential Equations*, 242(2):287–321, 2007.
- [1245] Sandra Cerrai, Giuseppe Da Prato, and Franco Flandoli. Pathwise uniqueness for stochastic reaction-diffusion equations in Banach spaces with an Hölder drift component. *Stoch. Partial Differ. Equ. Anal. Comput.*, 1(3):507–551, 2013.
- [1246] Sandra Cerrai and Giuseppe Da Prato. Schauder estimates for elliptic equations in Banach spaces associated with stochastic reaction-diffusion equations. *J. Evol. Equ.*, 12(1):83–98, 2012.
- [1247] Sandra Cerrai and Giuseppe Da Prato. A basic identity for Kolmogorov operators in the space of continuous functions related to RDEs with multiplicative noise. *Ann. Probab.*, 42(4):1297–1336, 2014.
- [1248] Sandra Cerrai and Arnaud Debussche. Large deviations for the dynamic  $\Phi_d^{2n}$  model. *Appl. Math. Optim.*, 80(1):81–102, 2019.
- [1249] Sandra Cerrai and Arnaud Debussche. Large deviations for the two-dimensional stochastic Navier-Stokes equation with vanishing noise correlation. *Ann. Inst. Henri Poincaré Probab. Stat.*, 55(1):211–236, 2019.
- [1250] Sandra Cerrai, Mark Freidlin, and Michael Salins. On the Smoluchowski-Kramers approximation for SPDEs and its interplay with large deviations and long time behavior. *Discrete Contin. Dyn. Syst.*, 37(1):33–76, 2017.

- [1251] Sandra Cerrai and Mark Freidlin. On the Smoluchowski-Kramers approximation for a system with an infinite number of degrees of freedom. *Probab. Theory Related Fields*, 135(3):363–394, 2006.
- [1252] Sandra Cerrai and Mark Freidlin. Smoluchowski-Kramers approximation for a general class of SPDEs. *J. Evol. Equ.*, 6(4):657–689, 2006.
- [1253] Sandra Cerrai and Mark Freidlin. Averaging principle for a class of stochastic reaction-diffusion equations. *Probab. Theory Related Fields*, 144(1-2):137–177, 2009.
- [1254] Sandra Cerrai and Mark Freidlin. Approximation of quasi-potentials and exit problems for multidimensional RDE’s with noise. *Trans. Amer. Math. Soc.*, 363(7):3853–3892, 2011.
- [1255] Sandra Cerrai and Mark Freidlin. Fast transport asymptotics for stochastic RDEs with boundary noise. *Ann. Probab.*, 39(1):369–405, 2011.
- [1256] Sandra Cerrai and Mark Freidlin. Small mass asymptotics for a charged particle in a magnetic field and long-time influence of small perturbations. *J. Stat. Phys.*, 144(1):101–123, 2011.
- [1257] Sandra Cerrai and Mark Freidlin. Large deviations for the Langevin equation with strong damping. *J. Stat. Phys.*, 161(4):859–875, 2015.
- [1258] Sandra Cerrai and Mark Freidlin. SPDEs on narrow domains and on graphs: an asymptotic approach. *Ann. Inst. Henri Poincaré Probab. Stat.*, 53(2):865–899, 2017.
- [1259] Sandra Cerrai and Mark Freidlin. Fast flow asymptotics for stochastic incompressible viscous fluids in  $R^2$  and SPDEs on graphs. *Probab. Theory Related Fields*, 173(1-2):491–535, 2019.
- [1260] Sandra Cerrai and Nathan Glatt-Holtz. On the convergence of stationary solutions in the Smoluchowski-Kramers approximation of infinite dimensional systems. *J. Funct. Anal.*, 278(8):108421, 38, 2020.
- [1261] Sandra Cerrai and Fausto Gozzi. Strong solutions of Cauchy problems associated to weakly continuous semigroups. *Differential Integral Equations*, 8(3):465–486, 1995.
- [1262] Sandra Cerrai and Alessandra Lunardi. Averaging principle for nonautonomous slow-fast systems of stochastic reaction-diffusion equations: the almost periodic case. *SIAM J. Math. Anal.*, 49(4):2843–2884, 2017.
- [1263] Sandra Cerrai and Alessandra Lunardi. Schauder theorems for Ornstein-Uhlenbeck equations in infinite dimension. *J. Differential Equations*, 267(12):7462–7482, 2019.
- [1264] Sandra Cerrai and Nicholas Paskal. Large deviations for fast transport stochastic RDEs with applications to the exit problem. *Ann. Appl. Probab.*, 29(4):1993–2032, 2019.
- [1265] Sandra Cerrai and Michael Röckner. Large deviations for invariant measures of general stochastic reaction-diffusion systems. *C. R. Math. Acad. Sci. Paris*, 337(9):597–602, 2003.
- [1266] Sandra Cerrai and Michael Röckner. Large deviations for stochastic reaction-diffusion systems with multiplicative noise and non-Lipschitz reaction term. *Ann. Probab.*, 32(1B):1100–1139, 2004.
- [1267] Sandra Cerrai and Michael Röckner. Large deviations for invariant measures of stochastic reaction-diffusion systems with multiplicative noise and non-Lipschitz reaction term. *Ann. Inst. H. Poincaré Probab. Statist.*, 41(1):69–105, 2005.
- [1268] Sandra Cerrai and Michael Salins. Smoluchowski-Kramers approximation and large deviations for infinite dimensional gradient systems. *Asymptot. Anal.*, 88(4):201–215, 2014.

- [1269] Sandra Cerrai and Michael Salins. Smoluchowski-Kramers approximation and large deviations for infinite-dimensional nongradient systems with applications to the exit problem. *Ann. Probab.*, 44(4):2591–2642, 2016.
- [1270] Sandra Cerrai and Michael Salins. On the Smoluchowski-Kramers approximation for a system with infinite degrees of freedom exposed to a magnetic field. *Stochastic Process. Appl.*, 127(1):273–303, 2017.
- [1271] Sandra Cerrai, Jan Wehr, and Yichun Zhu. An averaging approach to the Smoluchowski-Kramers approximation in the presence of a varying magnetic field. *J. Stat. Phys.*, 181(1):132–148, 2020.
- [1272] Sandra Cerrai and Guangyu Xi. Incompressible viscous fluids in  $R^2$  and SPDEs on graphs, in presence of fast advection and non smooth noise. *Ann. Inst. Henri Poincaré Probab. Stat.*, 57(3):1636–1664, 2021.
- [1273] Sandra Cerrai. Analytic semigroups and degenerate elliptic operators with unbounded coefficients: a probabilistic approach. *J. Differential Equations*, 166(1):151–174, 2000.
- [1274] Sandra Cerrai. A generalization of the Bismut-Elworthy formula. In *Evolution equations and their applications in physical and life sciences (Bad Herrenalb, 1998)*, volume 215 of *Lecture Notes in Pure and Appl. Math.*, pages 473–482. Dekker, New York, 2001.
- [1275] Sandra Cerrai. Optimal control problems for stochastic reaction-diffusion systems with non-Lipschitz coefficients. *SIAM J. Control Optim.*, 39(6):1779–1816, 2001.
- [1276] Sandra Cerrai. *Second order PDE’s in finite and infinite dimension*, volume 1762 of *Lecture Notes in Mathematics*. Springer-Verlag, Berlin, 2001. A probabilistic approach.
- [1277] Sandra Cerrai. Stationary Hamilton-Jacobi equations in Hilbert spaces and applications to a stochastic optimal control problem. *SIAM J. Control Optim.*, 40(3):824–852, 2001.
- [1278] S. Cerrai. Classical solutions for Kolmogorov equations in Hilbert spaces. In *Seminar on Stochastic Analysis, Random Fields and Applications, III (Ascona, 1999)*, volume 52 of *Progr. Probab.*, pages 55–71. Birkhäuser, Basel, 2002.
- [1279] Sandra Cerrai. Stochastic reaction-diffusion systems with multiplicative noise and non-Lipschitz reaction term. *Probab. Theory Related Fields*, 125(2):271–304, 2003.
- [1280] Sandra Cerrai. Stabilization by noise for a class of stochastic reaction-diffusion equations. *Probab. Theory Related Fields*, 133(2):190–214, 2005.
- [1281] Sandra Cerrai. Asymptotic behavior of systems of stochastic partial differential equations with multiplicative noise. In *Stochastic partial differential equations and applications—VII*, volume 245 of *Lect. Notes Pure Appl. Math.*, pages 61–75. Chapman & Hall/CRC, Boca Raton, FL, 2006.
- [1282] Sandra Cerrai. Ergodic properties of reaction-diffusion equations perturbed by a degenerate multiplicative noise. In *Partial differential equations and functional analysis*, volume 168 of *Oper. Theory Adv. Appl.*, pages 45–59. Birkhäuser, Basel, 2006.
- [1283] Sandra Cerrai. A Khasminskii type averaging principle for stochastic reaction-diffusion equations. *Ann. Appl. Probab.*, 19(3):899–948, 2009.
- [1284] Sandra Cerrai. Normal deviations from the averaged motion for some reaction-diffusion equations with fast oscillating perturbation. *J. Math. Pures Appl. (9)*, 91(6):614–647, 2009.
- [1285] Sandra Cerrai. Averaging principle for systems of reaction-diffusion equations with polynomial nonlinearities perturbed by multiplicative noise. *SIAM J. Math. Anal.*, 43(6):2482–2518, 2011.

- [1286] Sandra Cerrai. A Hille-Yosida theorem for weakly continuous semigroups. *Semigroup Forum*, 49(3):349–367, 1994.
- [1287] Sandra Cerrai. Weakly continuous semigroups in the space of functions with polynomial growth. *Dynam. Systems Appl.*, 4(3):351–371, 1995.
- [1288] Sandra Cerrai. Elliptic and parabolic equations in  $\mathbf{R}^n$  with coefficients having polynomial growth. *Comm. Partial Differential Equations*, 21(1-2):281–317, 1996.
- [1289] Sandra Cerrai. Invariant measures for a class of SDEs with drift term having polynomial growth. *Dynam. Systems Appl.*, 5(3):353–370, 1996.
- [1290] Sandra Cerrai. Differentiability with respect to initial datum for solutions of SPDE’s with no Fréchet differentiable drift term. *Commun. Appl. Anal.*, 2(2):249–270, 1998.
- [1291] Sandra Cerrai. Kolmogorov equations in Hilbert spaces with nonsmooth coefficients. *Commun. Appl. Anal.*, 2(2):271–297, 1998.
- [1292] Sandra Cerrai. Some results for second order elliptic operators having unbounded coefficients. *Differential Integral Equations*, 11(4):561–588, 1998.
- [1293] Sandra Cerrai. Differentiability of Markov semigroups for stochastic reaction-diffusion equations and applications to control. *Stochastic Process. Appl.*, 83(1):15–37, 1999.
- [1294] Sandra Cerrai. Ergodicity for stochastic reaction-diffusion systems with polynomial coefficients. *Stochastics Stochastics Rep.*, 67(1-2):17–51, 1999.
- [1295] Sandra Cerrai. Smoothing properties of transition semigroups relative to SDEs with values in Banach spaces. *Probab. Theory Related Fields*, 113(1):85–114, 1999.
- [1296] Prakash Chakraborty, Xia Chen, Bo Gao, and Samy Tindel. Quenched asymptotics for a 1-d stochastic heat equation driven by a rough spatial noise. *Stochastic Process. Appl.*, 130(11):6689–6732, 2020.
- [1297] Prakash Chakraborty and Samy Tindel. Rough differential equations with power type nonlinearities. *Stochastic Process. Appl.*, 129(5):1533–1555, 2019.
- [1298] Mireille Chaleyat-Maurel and David Nualart. The Onsager-Machlup functional for a class of anticipating processes. *Probab. Theory Related Fields*, 94(2):247–270, 1992.
- [1299] Mireille Chaleyat-Maurel and David Nualart. Onsager-Machlup functionals for solutions of stochastic boundary value problems. In *Séminaire de Probabilités, XXIX*, volume 1613 of *Lecture Notes in Math.*, pages 44–55. Springer, Berlin, 1995.
- [1300] Mireille Chaleyat-Maurel and David Nualart. Points of positive density for smooth functionals. *Electron. J. Probab.*, 3:No. 1, 8, 1998.
- [1301] Mireille Chaleyat-Maurel and Marta Sanz-Solé. Positivity of the density for the stochastic wave equation in two spatial dimensions. *ESAIM Probab. Stat.*, 7:89–114, 2003.
- [1302] Terence Chan. Scaling limits of Wick ordered KPZ equation. *Comm. Math. Phys.*, 209(3):671–690, 2000.
- [1303] Ajay Chandra and Hendrik Weber. Stochastic PDEs, regularity structures, and interacting particle systems. *Ann. Fac. Sci. Toulouse Math. (6)*, 26(4):847–909, 2017.
- [1304] Der-Chen Chang, Galia Dafni, and Elias M. Stein. Hardy spaces, BMO, and boundary value problems for the Laplacian on a smooth domain in  $R^n$ . *Trans. Amer. Math. Soc.*, 351(4):1605–1661, 1999.

- [1305] Der-Chen Chang, Steven G. Krantz, and Elias M. Stein. Hardy spaces and elliptic boundary value problems. In *The Madison Symposium on Complex Analysis (Madison, WI, 1991)*, volume 137 of *Contemp. Math.*, pages 119–131. Amer. Math. Soc., Providence, RI, 1992.
- [1306] Der-Chen Chang, Steven G. Krantz, and Elias M. Stein.  $H^p$  theory on a smooth domain in  $\mathbf{R}^N$  and elliptic boundary value problems. *J. Funct. Anal.*, 114(2):286–347, 1993.
- [1307] Mou-Hsiung Chang. Large deviation for Navier-Stokes equations with small stochastic perturbation. *Appl. Math. Comput.*, 76(1):65–93, 1996.
- [1308] Sourav Chatterjee and Alexander Dunlap. Constructing a solution of the  $(2+1)$ -dimensional KPZ equation. *Ann. Probab.*, 48(2):1014–1055, 2020.
- [1309] Shirshendu Chatterjee and Ofer Zeitouni. Thresholds for detecting an anomalous path from noisy environments. *Ann. Appl. Probab.*, 28(5):2635–2663, 2018.
- [1310] L. O. Chekhov. Algebraic geometry and matrix models. In *The Oxford handbook of random matrix theory*, pages 597–618. Oxford Univ. Press, Oxford, 2011.
- [1311] Dmitry Chelkak, Hugo Duminil-Copin, Clément Hongler, Antti Kemppainen, and Stanislav Smirnov. Convergence of Ising interfaces to Schramm’s SLE curves. *C. R. Math. Acad. Sci. Paris*, 352(2):157–161, 2014.
- [1312] Jean-Yves Chemin. Fluides parfaits incompressibles. *Astérisque*, (230):177, 1995.
- [1313] Le Chen, Michael Cranston, Davar Khoshnevisan, and Kunwoo Kim. Dissipation and high disorder. *Ann. Probab.*, 45(1):82–99, 2017.
- [1314] Le Chen and Robert C. Dalang. The nonlinear stochastic heat equation with rough initial data: a summary of some new results. *Preprint arXiv:1210.1690*, October 2012.
- [1315] Le Chen and Robert C. Dalang. Hölder-continuity for the nonlinear stochastic heat equation with rough initial conditions. *Stoch. Partial Differ. Equ. Anal. Comput.*, 2(3):316–352, 2014.
- [1316] Le Chen and Robert C. Dalang. Moment bounds in spde’s with application to the stochastic wave equation. *Preprint arXiv:1401.6506*, January 2014.
- [1317] Le Chen and Robert C. Dalang. Moment bounds and asymptotics for the stochastic wave equation. *Stochastic Process. Appl.*, 125(4):1605–1628, 2015.
- [1318] Le Chen and Robert C. Dalang. Moments, intermittency and growth indices for the nonlinear fractional stochastic heat equation. *Stoch. Partial Differ. Equ. Anal. Comput.*, 3(3):360–397, 2015.
- [1319] Le Chen and Robert C. Dalang. Moments and growth indices for the nonlinear stochastic heat equation with rough initial conditions. *Ann. Probab.*, 43(6):3006–3051, 2015.
- [1320] Xia Chen, Aurélien Deya, Cheng Ouyang, and Samy Tindel. A  $K$ -rough path above the space-time fractional Brownian motion. *Stoch. Partial Differ. Equ. Anal. Comput.*, 9(4):819–866, 2021.
- [1321] Xia Chen, Aurélien Deya, Cheng Ouyang, and Samy Tindel. Moment estimates for some renormalized parabolic Anderson models. *Ann. Probab.*, 49(5):2599–2636, 2021.
- [1322] Xia Chen, Aurélien Deya, Jian Song, and Samy Tindel. Solving the hyperbolic anderson model 1: Skorohod setting. *Preprint arXiv:2112.04954*, December 2021.
- [1323] Le Chen and Nicholas Eisenberg. Interpolating the stochastic heat and wave equations with time-independent noise: solvability and exact asymptotics. *Stoch. Partial Differ. Equ. Anal. Comput. (in press)*, August 2022.

- [1324] Le Chen and Nicholas Eisenberg. Invariant measures for the nonlinear stochastic heat equation with no drift term. *J. Theoret. Probab. (pending revision, preprint arXiv:2209.04771)*, September 2022.
- [1325] Le Chen and Nicholas Eisenberg. Interpolating the stochastic heat and wave equations with time-independent noise: solvability and exact asymptotics. *Stoch. Partial Differ. Equ. Anal. Comput.*, 11(3):1203–1253, 2023.
- [1326] Yang Chen, Kasper J. Eriksen, and Craig A. Tracy. Largest eigenvalue distribution in the double scaling limit of matrix models: a Coulomb fluid approach. *J. Phys. A*, 28(7):L207–L211, 1995.
- [1327] Zhen-Qing Chen, Shizan Fang, and Tusheng Zhang. Small time asymptotics for Brownian motion with singular drift. *Proc. Amer. Math. Soc.*, 147(8):3567–3578, 2019.
- [1328] Z.-Q. Chen, P. J. Fitzsimmons, K. Kuwae, and T.-S. Zhang. Perturbation of symmetric Markov processes. *Probab. Theory Related Fields*, 140(1-2):239–275, 2008.
- [1329] Z.-Q. Chen, P. J. Fitzsimmons, K. Kuwae, and T.-S. Zhang. Stochastic calculus for symmetric Markov processes. *Ann. Probab.*, 36(3):931–970, 2008.
- [1330] Z.-Q. Chen, P. J. Fitzsimmons, K. Kuwae, and T.-S. Zhang. On general perturbations of symmetric Markov processes. *J. Math. Pures Appl. (9)*, 92(4):363–374, 2009.
- [1331] Zhen-Qing Chen, Patrick J. Fitzsimmons, Kazuhiro Kuwae, and Tu-Sheng Zhang. Errata for Stochastic calculus for symmetric Markov processes [mr2408579]. *Ann. Probab.*, 40(3):1375–1376, 2012.
- [1332] Le Chen, Mohammud Foondun, Jingyu Huang, and Michael Salins. Global solution for superlinear stochastic heat equation on  $R^d$  under osgood-type conditions. *preprint arXiv:2310.02153*, October 2023.
- [1333] Louis H. Y. Chen, Larry Goldstein, and Qi-Man Shao. *Normal approximation by Stein’s method*. Probability and its Applications (New York). Springer, Heidelberg, 2011.
- [1334] Xia Chen and Arnaud Guillin. The functional moderate deviations for Harris recurrent Markov chains and applications. *Ann. Inst. H. Poincaré Probab. Statist.*, 40(1):89–124, 2004.
- [1335] Le Chen, Yuhui Guo, and Jian Song. Moments and asymptotics for a class of spdes with space-time white noise. *preprint arXiv:2206.10069, to appear in Trans. Amer. Math. Soc.*, June 2022.
- [1336] Xia Chen, Yaozhong Hu, Jian Song, and Fei Xing. Exponential asymptotics for time-space Hamiltonians. *Ann. Inst. Henri Poincaré Probab. Stat.*, 51(4):1529–1561, 2015.
- [1337] Yong Chen, Yaozhong Hu, and Zhi Wang. Parameter estimation of complex fractional Ornstein-Uhlenbeck processes with fractional noise. *ALEA Lat. Am. J. Probab. Math. Stat.*, 14(1):613–629, 2017.
- [1338] Le Chen, Guannan Hu, Yaozhong Hu, and Jingyu Huang. Space-time fractional diffusions in Gaussian noisy environment. *Stochastics*, 89(1):171–206, 2017.
- [1339] Xia Chen, Yaozhong Hu, David Nualart, and Samy Tindel. Spatial asymptotics for the parabolic Anderson model driven by a Gaussian rough noise. *Electron. J. Probab.*, 22:Paper No. 65, 38, 2017.
- [1340] Le Chen, Yaozhong Hu, and David Nualart. Two-point correlation function and Feynman-Kac formula for the stochastic heat equation. *Potential Anal.*, 46(4):779–797, 2017.



- [1341] Yong Chen, Yaozhong Hu, and Zhi Wang. Gradient and stability estimates of heat kernels for fractional powers of elliptic operator. *Statist. Probab. Lett.*, 142:44–49, 2018.
- [1342] Le Chen, Yaozhong Hu, Kamran Kalbasi, and David Nualart. Intermittency for the stochastic heat equation driven by a rough time fractional Gaussian noise. *Probab. Theory Related Fields*, 171(1-2):431–457, 2018.
- [1343] Xia Chen, Yaozhong Hu, Jian Song, and Xiaoming Song. Temporal asymptotics for fractional parabolic Anderson model. *Electron. J. Probab.*, 23:Paper No. 14, 39, 2018.
- [1344] Le Chen, Yaozhong Hu, and David Nualart. Nonlinear stochastic time-fractional slow and fast diffusion equations on  $R^d$ . *Stochastic Process. Appl.*, 129(12):5073–5112, 2019.
- [1345] Le Chen, Yaozhong Hu, and David Nualart. Regularity and strict positivity of densities for the nonlinear stochastic heat equation. *Mem. Amer. Math. Soc.*, 273(1340):v+102, 2021.
- [1346] Zhen-Qing Chen and Yaozhong Hu. Solvability of parabolic anderson equation with fractional gaussian noise. *To appear in Comm. in Math. Stat., preprint arXiv:2101.05997*, January 2021.
- [1347] Le Chen and Guannan Hu. Hölder regularity for the nonlinear stochastic time-fractional slow & fast diffusion equations on  $R^d$ . *Fract. Calc. Appl. Anal.*, 25(2):608–629, 2022.
- [1348] Le Chen, Jingyu Huang, Davar Khoshnevisan, and Kunwoo Kim. Dense blowup for parabolic SPDEs. *Electron. J. Probab.*, 24:Paper No. 118, 33, 2019.
- [1349] Le Chen and Jingyu Huang. Comparison principle for stochastic heat equation on  $R^d$ . *Ann. Probab.*, 47(2):989–1035, 2019.
- [1350] Le Chen and Jingyu Huang. Regularity and strict positivity of densities for the stochastic heat equation on  $R^d$ . *Preprint arXiv:1902.02382*, February 2019.
- [1351] Le Chen and Jingyu Huang. Superlinear stochastic heat equation on  $R^d$ . *Proc. Amer. Math. Soc.*, 151(9):4063–4078, 2023.
- [1352] Le Chen, Davar Khoshnevisan, and Kunwoo Kim. Decorrelation of total mass via energy. *Potential Anal.*, 45(1):157–166, 2016.
- [1353] Le Chen, Davar Khoshnevisan, and Kunwoo Kim. A boundedness trichotomy for the stochastic heat equation. *Ann. Inst. Henri Poincaré Probab. Stat.*, 53(4):1991–2004, 2017.
- [1354] Le Chen, Davar Khoshnevisan, David Nualart, and Fei Pu. A CLT for dependent random variables with an application to an infinite system of interacting diffusion processes. *Proc. Amer. Math. Soc.*, 149(12):5367–5384, 2021.
- [1355] Le Chen, Davar Khoshnevisan, David Nualart, and Fei Pu. Spatial ergodicity for SPDEs via Poincaré-type inequalities. *Electron. J. Probab.*, 26:Paper No. 140, 37, 2021.
- [1356] Le Chen, Davar Khoshnevisan, David Nualart, and Fei Pu. Central limit theorems for parabolic stochastic partial differential equations. *Ann. Inst. Henri Poincaré Probab. Stat.*, 58(2):1052–1077, 2022.
- [1357] Le Chen, Davar Khoshnevisan, David Nualart, and Fei Pu. Spatial ergodicity and central limit theorems for parabolic Anderson model with delta initial condition. *J. Funct. Anal.*, 282(2):Paper No. 109290, 35, 2022.
- [1358] Le Chen, Davar Khoshnevisan, David Nualart, and Fei Pu. Central limit theorems for spatial averages of the stochastic heat equation via Malliavin-Stein’s method. *Stoch. Partial Differ. Equ. Anal. Comput.*, 11(1):122–176, 2023.

- [1359] Xia Chen and Davar Khoshnevisan. From charged polymers to random walk in random scenery. In *Optimality*, volume 57 of *IMS Lecture Notes Monogr. Ser.*, pages 237–251. Inst. Math. Statist., Beachwood, OH, 2009.
- [1360] Zhen-Qing Chen, Panki Kim, and Renming Song. Heat kernel estimates for the Dirichlet fractional Laplacian. *J. Eur. Math. Soc. (JEMS)*, 12(5):1307–1329, 2010.
- [1361] Zhen-Qing Chen, Kyeong-Hun Kim, and Panki Kim. Fractional time stochastic partial differential equations. *Stochastic Process. Appl.*, 125(4):1470–1499, 2015.
- [1362] Le Chen and Kunwoo Kim. On comparison principle and strict positivity of solutions to the nonlinear stochastic fractional heat equations. *Ann. Inst. Henri Poincaré Probab. Stat.*, 53(1):358–388, 2017.
- [1363] Le Chen and Kunwoo Kim. Nonlinear stochastic heat equation driven by spatially colored noise: moments and intermittency. *Acta Math. Sci. Ser. B (Engl. Ed.)*, 39(3):645–668, 2019.
- [1364] Le Chen and Kunwoo Kim. Stochastic comparisons for stochastic heat equation. *Electron. J. Probab.*, 25:Paper No. 140, 38, 2020.
- [1365] Xia Chen, James Kuelbs, and Wenbo Li. A functional LIL for symmetric stable processes. *Ann. Probab.*, 28(1):258–276, 2000.
- [1366] Xia Chen and Alexey Kulik. Asymptotics of negative exponential moments for annealed Brownian motion in a renormalized Poisson potential. *Int. J. Stoch. Anal.*, pages Art. ID 803683, 43, 2011.
- [1367] Xia Chen and Alexey M. Kulik. Brownian motion and parabolic Anderson model in a renormalized Poisson potential. *Ann. Inst. Henri Poincaré Probab. Stat.*, 48(3):631–660, 2012.
- [1368] Zhen-Qing Chen and Takashi Kumagai. Heat kernel estimates for stable-like processes on  $d$ -sets. *Stochastic Process. Appl.*, 108(1):27–62, 2003.
- [1369] Le Chen, Sefika Kuzgun, Carl Mueller, and Panqiu Xia. On the radius of self-repellent fractional brownian motion. *preprint arXiv:2308.10889*, August 2023.
- [1370] Le Chen, Cheuk-Yin Lee, and Panqiu Xia. Strong local nondeterminism for a parametric class of SPDEs. *Working progress*, 2023.
- [1371] Xia Chen, Wenbo V. Li, and Jay Rosen. Large deviations for local times of stable processes and stable random walks in 1 dimension. *Electron. J. Probab.*, 10:no. 16, 577–608, 2005.
- [1372] Xia Chen, Wenbo V. Li, Michael B. Marcus, and Jay Rosen. A CLT for the  $L^2$  modulus of continuity of Brownian local time. *Ann. Probab.*, 38(1):396–438, 2010.
- [1373] Xia Chen, Wenbo V. Li, Jan Rosiński, and Qi-Man Shao. Large deviations for local times and intersection local times of fractional Brownian motions and Riemann-Liouville processes. *Ann. Probab.*, 39(2):729–778, 2011.
- [1374] Xia Chen and Wenbo V. Li. Limiting behaviors for Brownian motion reflected on Brownian motion. volume 9, pages 377–391. 2002. Special issue dedicated to Daniel W. Stroock and Srinivasa S. R. Varadhan on the occasion of their 60th birthday.
- [1375] Xia Chen and Wenbo V. Li. Quadratic functionals and small ball probabilities for the  $m$ -fold integrated Brownian motion. *Ann. Probab.*, 31(2):1052–1077, 2003.
- [1376] Xia Chen and Wenbo V. Li. Small deviation estimates for some additive processes. In *High dimensional probability, III (Sandjberg, 2002)*, volume 55 of *Progr. Probab.*, pages 225–238. Birkhäuser, Basel, 2003.

- [1377] Xia Chen and Wenbo V. Li. Large and moderate deviations for intersection local times. *Probab. Theory Related Fields*, 128(2):213–254, 2004.
- [1378] Xu-Yan Chen, Hiroshi Matano, and Masayasu Mimura. Finite-point extinction and continuity of interfaces in a nonlinear diffusion equation with strong absorption. *J. Reine Angew. Math.*, 459:1–36, 1995.
- [1379] Xu-Yan Chen and Hiroshi Matano. Convergence, asymptotic periodicity, and finite-point blow-up in one-dimensional semilinear heat equations. *J. Differential Equations*, 78(1):160–190, 1989.
- [1380] Zhen-Qing Chen, Mark M. Meerschaert, and Erkan Nane. Space-time fractional diffusion on bounded domains. *J. Math. Anal. Appl.*, 393(2):479–488, 2012.
- [1381] Xia Chen and Peter Mörters. Upper tails for intersection local times of random walks in supercritical dimensions. *J. Lond. Math. Soc. (2)*, 79(1):186–210, 2009.
- [1382] Peng Chen, Ivan Nourdin, and Lihu Xu. Stein’s method for asymmetric  $\alpha$ -stable distributions, with application to the stable CLT. *J. Theoret. Probab.*, 34(3):1382–1407, 2021.
- [1383] Peng Chen, Ivan Nourdin, Lihu Xu, Xiaochuan Yang, and Rui Zhang. Non-integrable stable approximation by Stein’s method. *J. Theoret. Probab.*, 35(2):1137–1186, 2022.
- [1384] Le Chen, Cheng Ouyang, and William Vickery. Parabolic anderson model with colored noise on torus. *preprint arXiv:2308.10802*, August 2023.
- [1385] Xia Chen and Tuoc Phan. Free energy in a mean field of Brownian particles. *Discrete Contin. Dyn. Syst.*, 39(2):747–769, 2019.
- [1386] Zhen-Qing Chen, Zhongmin Qian, Yaozhong Hu, and Weian Zheng. Stability and approximations of symmetric diffusion semigroups and kernels. *J. Funct. Anal.*, 152(1):255–280, 1998.
- [1387] Xia Chen and Jay Rosen. Exponential asymptotics for intersection local times of stable processes and random walks. *Ann. Inst. H. Poincaré Probab. Statist.*, 41(5):901–928, 2005.
- [1388] Xia Chen and Jay Rosen. Large deviations and renormalization for Riesz potentials of stable intersection measures. *Stochastic Process. Appl.*, 120(9):1837–1878, 2010.
- [1389] Zhen-Qing Chen and Renming Song. Intrinsic ultracontractivity and conditional gauge for symmetric stable processes. *J. Funct. Anal.*, 150(1):204–239, 1997.
- [1390] Le Chen and Panqiu Xia. Asymptotic properties of stochastic partial differential equations in the sublinear regime. *preprint arXiv:2306.06761*, June 2023.
- [1391] Xia Chen and Jie Xiong. Annealed asymptotics for Brownian motion of renormalized potential in mobile random medium. *J. Theoret. Probab.*, 28(4):1601–1650, 2015.
- [1392] Zhen-Qing Chen and Tusheng Zhang. Time-reversal and elliptic boundary value problems. *Ann. Probab.*, 37(3):1008–1043, 2009.
- [1393] Zhen-Qing Chen and Tusheng Zhang. Stochastic evolution equations driven by Lévy processes. *Osaka J. Math.*, 48(2):311–327, 2011.
- [1394] Zhen-Qing Chen and Tusheng Zhang. A probabilistic approach to mixed boundary value problems for elliptic operators with singular coefficients. *Proc. Amer. Math. Soc.*, 142(6):2135–2149, 2014.
- [1395] Xia Chen. Chung’s law for additive functionals of positive recurrent Markov chains. *Statist. Probab. Lett.*, 47(3):253–264, 2000.

- [1396] Xia Chen. On the limit laws of the second order for additive functionals of Harris recurrent Markov chains. *Probab. Theory Related Fields*, 116(1):89–123, 2000.
- [1397] Xia Chen. On the law of the iterated logarithm for local times of recurrent random walks. In *High dimensional probability, II (Seattle, WA, 1999)*, volume 47 of *Progr. Probab.*, pages 249–259. Birkhäuser Boston, Boston, MA, 2000.
- [1398] Xia Chen. Exact convergence rates for the distribution of particles in branching random walks. *Ann. Appl. Probab.*, 11(4):1242–1262, 2001.
- [1399] Xia Chen. Moderate deviations for Markovian occupation times. *Stochastic Process. Appl.*, 94(1):51–70, 2001.
- [1400] Xia Chen. Exponential asymptotics and law of the iterated logarithm for intersection local times of random walks. *Ann. Probab.*, 32(4):3248–3300, 2004.
- [1401] Xia Chen. Moderate deviations and law of the iterated logarithm for intersections of the ranges of random walks. *Ann. Probab.*, 33(3):1014–1059, 2005.
- [1402] Xia Chen. Moderate and small deviations for the ranges of one-dimensional random walks. *J. Theoret. Probab.*, 19(3):721–739, 2006.
- [1403] Xia Chen. Self-intersection local times of additive processes: large deviation and law of the iterated logarithm. *Stochastic Process. Appl.*, 116(9):1236–1253, 2006.
- [1404] Xia Chen. Large deviations and laws of the iterated logarithm for the local times of additive stable processes. *Ann. Probab.*, 35(2):602–648, 2007.
- [1405] Xia Chen. Moderate deviations and laws of the iterated logarithm for the local times of additive Lévy processes and additive random walks. *Ann. Probab.*, 35(3):954–1006, 2007.
- [1406] Xia Chen. Intersection local times: large deviations and laws of the iterated logarithm. In *Asymptotic theory in probability and statistics with applications*, volume 2 of *Adv. Lect. Math. (ALM)*, pages 195–253. Int. Press, Somerville, MA, 2008.
- [1407] Xia Chen. Limit laws for the energy of a charged polymer. *Ann. Inst. Henri Poincaré Probab. Stat.*, 44(4):638–672, 2008.
- [1408] Xia Chen. *Random walk intersections*, volume 157 of *Mathematical Surveys and Monographs*. American Mathematical Society, Providence, RI, 2010. Large deviations and related topics.
- [1409] Xia Chen. Quenched asymptotics for Brownian motion of renormalized Poisson potential and for the related parabolic Anderson models. *Ann. Probab.*, 40(4):1436–1482, 2012.
- [1410] Le Chen. Moments, intermittency, and growth indices for nonlinear stochastic pde’s with rough initial conditions. 2013.
- [1411] Xia Chen. Quenched asymptotics for Brownian motion in generalized Gaussian potential. *Ann. Probab.*, 42(2):576–622, 2014.
- [1412] Xia Chen. The limit law of the iterated logarithm. *J. Theoret. Probab.*, 28(2):721–725, 2015.
- [1413] Xia Chen. Precise intermittency for the parabolic Anderson equation with an  $(1 + 1)$ -dimensional time-space white noise. *Ann. Inst. Henri Poincaré Probab. Stat.*, 51(4):1486–1499, 2015.
- [1414] Xia Chen. Spatial asymptotics for the parabolic Anderson models with generalized time-space Gaussian noise. *Ann. Probab.*, 44(2):1535–1598, 2016.
- [1415] Le Chen. The third moment for the parabolic anderson model. *Preprint arXiv:1609.01005*, September 2016.

- [1416] Xia Chen. Acknowledgment of priority: “The limit law of the iterated logarithm” [MR3370672]. *J. Theoret. Probab.*, 30(2):700, 2017.
- [1417] Xia Chen. Moment asymptotics for parabolic Anderson equation with fractional time-space noise: in Skorokhod regime. *Ann. Inst. Henri Poincaré Probab. Stat.*, 53(2):819–841, 2017.
- [1418] Le Chen. Nonlinear stochastic time-fractional diffusion equations on  $R$ : moments, Hölder regularity and intermittency. *Trans. Amer. Math. Soc.*, 369(12):8497–8535, 2017.
- [1419] Xia Chen. Parabolic Anderson model with rough or critical Gaussian noise. *Ann. Inst. Henri Poincaré Probab. Stat.*, 55(2):941–976, 2019.
- [1420] X. Chen. Condition for intersection occupation measure to be absolutely continuous. *Ukrain. Mat. Zh.*, 72(9):1304–1312, 2020.
- [1421] Xia Chen. Parabolic Anderson model with a fractional Gaussian noise that is rough in time. *Ann. Inst. Henri Poincaré Probab. Stat.*, 56(2):792–825, 2020.
- [1422] Le Chen. Some symbolic tools for the Fox  $H$ -function. [urlhttps://github.com/chenle02/Fox-H-Symbolic-Tools](https://github.com/chenle02/Fox-H-Symbolic-Tools), 2022. Accessed: 11/08/2023.
- [1423] Le Chen. Some symbolic tools for the fox h-function, November 2023.
- [1424] Le Chen. SPDEs-Bib: A comprehensive bibliography of stochastic partial differential equations and related topics, November 2023.
- [1425] Xia Chen. Moderate deviations of  $B$ -valued independent random vectors. *Chinese Ann. Math. Ser. A*, 11(5):621–629, 1990.
- [1426] Xia Chen. Moderate deviations of independent random vectors in a Banach space. *Chinese J. Appl. Probab. Statist.*, 7(1):24–32, 1991.
- [1427] Xia Chen. Kolmogorov’s law of the iterated logarithm for  $B$ -valued random elements and empirical processes. *Acta Math. Sinica*, 36(5):600–619, 1993.
- [1428] Xia Chen. On the law of the iterated logarithm for independent Banach space valued random variables. *Ann. Probab.*, 21(4):1991–2011, 1993.
- [1429] Xia Chen. On Strassen’s law of the iterated logarithm in Banach space. *Ann. Probab.*, 22(2):1026–1043, 1994.
- [1430] Xia Chen. Feller’s law of the iterated logarithm in Banach spaces. *Chinese Ann. Math. Ser. A*, 16(2):251–258, 1995.
- [1431] Xia Chen. The law of the iterated logarithm for  $m$ -dependent Banach space valued random variables. *J. Theoret. Probab.*, 10(3):695–732, 1997.
- [1432] Xia Chen. *Limit theorems for functionals of ergodic Markov chains with general state space*. ProQuest LLC, Ann Arbor, MI, 1997. Thesis (Ph.D.)—Case Western Reserve University.
- [1433] Xia Chen. Moderate deviations for  $m$ -dependent random variables with Banach space values. *Statist. Probab. Lett.*, 35(2):123–134, 1997.
- [1434] Xia Chen. How often does a Harris recurrent Markov chain recur? *Ann. Probab.*, 27(3):1324–1346, 1999.
- [1435] Xia Chen. The law of the iterated logarithm for functionals of Harris recurrent Markov chains: self-normalization. *J. Theoret. Probab.*, 12(2):421–445, 1999.
- [1436] Xia Chen. Limit theorems for functionals of ergodic Markov chains with general state space. *Mem. Amer. Math. Soc.*, 139(664):xiv+203, 1999.

- [1437] Xia Chen. Some dichotomy results for functionals of Harris recurrent Markov chains. *Stochastic Process. Appl.*, 83(1):211–236, 1999.
- [1438] Yiyi Cheng, Yaozhong Hu, and Hongwei Long. Generalized moment estimators for  $\alpha$ -stable Ornstein-Uhlenbeck motions from discrete observations. *Stat. Inference Stoch. Process.*, 23(1):53–81, 2020.
- [1439] Patrick Cheridito and David 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(6):1049–1081, 2005.
- [1440] Carsten Chong, Robert C. Dalang, and Thomas Humeau. Path properties of the solution to the stochastic heat equation with Lévy noise. *Stoch. Partial Differ. Equ. Anal. Comput.*, 7(1):123–168, 2019.
- [1441] Mourad Choulli and Laurent Kayser. A remark on the Gaussian lower bound for the Neumann heat kernel of the Laplace-Beltrami operator. *Semigroup Forum*, 94(1):71–79, 2017.
- [1442] Pao-Liu Chow. Stochastic wave equations with polynomial nonlinearity. *Ann. Appl. Probab.*, 12(1):361–381, 2002.
- [1443] Pao-Liu Chow. *Stochastic partial differential equations*. Chapman & Hall/CRC Applied Mathematics and Nonlinear Science Series. Chapman & Hall/CRC, Boca Raton, FL, 2007.
- [1444] Alexandra Chronopoulou and Samy Tindel. On inference for fractional differential equations. *Stat. Inference Stoch. Process.*, 16(1):29–61, 2013.
- [1445] Xing Li Chu and Zi Xin Liu. Double bound polaron in polar semiconductor heterostructures. *J. Henan Norm. Univ. Nat. Sci.*, 32(2):31–33, 2004.
- [1446] K. L. Chung and W. H. J. Fuchs. On the distribution of values of sums of random variables. *Mem. Amer. Math. Soc.*, 6:12, 1951.
- [1447] Fan Chung and Linyuan Lu. *Complex graphs and networks*, volume 107 of *CBMS Regional Conference Series in Mathematics*. Published for the Conference Board of the Mathematical Sciences, Washington, DC; by the American Mathematical Society, Providence, RI, 2006.
- [1448] K. L. Chung and R. J. Williams. *Introduction to stochastic integration*. Probability and its Applications. Birkhäuser Boston, Inc., Boston, MA, second edition, 1990.
- [1449] Andrea Cianchi and Vladimir G. Maz’ya. Neumann problems and isocapacitary inequalities. *J. Math. Pures Appl. (9)*, 89(1):71–105, 2008.
- [1450] G. M. Cicutta and L. G. Molinari. Phase transitions. In *The Oxford handbook of random matrix theory*, pages 290–309. Oxford Univ. Press, Oxford, 2011.
- [1451] Z. Ciesielski and S. J. Taylor. First passage times and sojourn times for Brownian motion in space and the exact Hausdorff measure of the sample path. *Trans. Amer. Math. Soc.*, 103:434–450, 1962.
- [1452] B. S. Cirelson, I. A. Ibragimov, and V. N. Sudakov. Norms of Gaussian sample functions. In *Proceedings of the Third Japan-USSR Symposium on Probability Theory (Tashkent, 1975)*, Lecture Notes in Math., Vol. 550, pages 20–41. Springer, Berlin, 1976.
- [1453] P. A. Clarkson. Painlevé transcendents. In *NIST handbook of mathematical functions*, pages 723–740. U.S. Dept. Commerce, Washington, DC, 2010.
- [1454] Philippe Clément and Giuseppe Da Prato. Some results on stochastic convolutions arising in Volterra equations perturbed by noise. *Atti Accad. Naz. Lincei Cl. Sci. Fis. Mat. Natur. Rend. Lincei (9) Mat. Appl.*, 7(3):147–153, 1996.

- [1455] Nathan Clisby, Richard Liang, and Gordon Slade. Self-avoiding walk enumeration via the lace expansion. *J. Phys. A*, 40(36):10973–11017, 2007.
- [1456] Nathan Clisby. Scale-free Monte Carlo method for calculating the critical exponent  $\gamma$  of self-avoiding walks. *J. Phys. A*, 50(26):264003, 13, 2017.
- [1457] Bertrand Cloez and Martin Hairer. Exponential ergodicity for Markov processes with random switching. *Bernoulli*, 21(1):505–536, 2015.
- [1458] Earl A. Coddington and Norman Levinson. *Theory of ordinary differential equations*. McGraw-Hill Book Company, Inc., New York-Toronto-London, 1955.
- [1459] Serge Cohen, Fabien Panloup, and Samy Tindel. Approximation of stationary solutions to SDEs driven by multiplicative fractional noise. *Stochastic Process. Appl.*, 124(3):1197–1225, 2014.
- [1460] David Cohen and Lluís Quer-Sardanyons. A fully discrete approximation of the one-dimensional stochastic wave equation. *IMA J. Numer. Anal.*, 36(1):400–420, 2016.
- [1461] Ronald R. Coifman and Guido Weiss. Extensions of Hardy spaces and their use in analysis. *Bull. Amer. Math. Soc.*, 83(4):569–645, 1977.
- [1462] Julian D. Cole. On a quasi-linear parabolic equation occurring in aerodynamics. *Quart. Appl. Math.*, 9:225–236, 1951.
- [1463] Francis Comets, Clément Cosco, and Chiranjib Mukherjee. Renormalizing the Kardar-Parisi-Zhang equation in  $d \geq 3$  in weak disorder. *J. Stat. Phys.*, 179(3):713–728, 2020.
- [1464] Francis Comets and Michael Cranston. Overlaps and pathwise localization in the Anderson polymer model. *Stochastic Process. Appl.*, 123(6):2446–2471, 2013.
- [1465] Francis Comets, Nina Gantert, and Ofer Zeitouni. Quenched, annealed and functional large deviations for one-dimensional random walk in random environment. *Probab. Theory Related Fields*, 118(1):65–114, 2000.
- [1466] Francis Comets, Nina Gantert, and Ofer Zeitouni. Erratum: “Quenched, annealed and functional large deviations for one-dimensional random walk in random environment” [Probab. Theory Related Fields **118** (2000), no. 1, 65–114; MR1785454 (2002h:60090)]. *Probab. Theory Related Fields*, 125(1):42–44, 2003.
- [1467] Francis Comets and Quansheng Liu. Rate of convergence for polymers in a weak disorder. *J. Math. Anal. Appl.*, 455(1):312–335, 2017.
- [1468] Francis Comets, Gregorio Moreno, and Alejandro F. Ramírez. Random polymers on the complete graph. *Bernoulli*, 25(1):683–711, 2019.
- [1469] F. Comets and J. Neveu. The Sherrington-Kirkpatrick model of spin glasses and stochastic calculus: the high temperature case. *Comm. Math. Phys.*, 166(3):549–564, 1995.
- [1470] Francis Comets, Jeremy Quastel, and Alejandro F. Ramírez. Fluctuations of the front in a stochastic combustion model. *Ann. Inst. H. Poincaré Probab. Statist.*, 43(2):147–162, 2007.
- [1471] Francis Comets, Jeremy Quastel, and Alejandro F. Ramírez. Fluctuations of the front in a one dimensional model of  $X + Y \rightarrow 2X$ . *Trans. Amer. Math. Soc.*, 361(11):6165–6189, 2009.
- [1472] Francis Comets, Jeremy Quastel, and Alejandro F. Ramírez. Last passage percolation and traveling fronts. *J. Stat. Phys.*, 152(3):419–451, 2013.
- [1473] Francis Comets, Tokuzo Shiga, and Nobuo Yoshida. Directed polymers in a random environment: path localization and strong disorder. *Bernoulli*, 9(4):705–723, 2003.

- [1474] Francis Comets, Tokuzo Shiga, and Nobuo Yoshida. Probabilistic analysis of directed polymers in a random environment: a review. In *Stochastic analysis on large scale interacting systems*, volume 39 of *Adv. Stud. Pure Math.*, pages 115–142. Math. Soc. Japan, Tokyo, 2004.
- [1475] Francis Comets and Vincent Vargas. Majorizing multiplicative cascades for directed polymers in random media. *ALEA Lat. Am. J. Probab. Math. Stat.*, 2:267–277, 2006.
- [1476] Francis Comets and Nobuo Yoshida. Brownian directed polymers in random environment. *Comm. Math. Phys.*, 254(2):257–287, 2005.
- [1477] Francis Comets and Nobuo Yoshida. Directed polymers in random environment are diffusive at weak disorder. *Ann. Probab.*, 34(5):1746–1770, 2006.
- [1478] Francis Comets and Nobuo Yoshida. Localization transition for polymers in Poissonian medium. *Comm. Math. Phys.*, 323(1):417–447, 2013.
- [1479] Francis Comets and Ofer Zeitouni. A law of large numbers for random walks in random mixing environments. *Ann. Probab.*, 32(1B):880–914, 2004.
- [1480] Francis Comets and Ofer Zeitouni. Gaussian fluctuations for random walks in random mixing environments. volume 148, pages 87–113. 2005. *Probability in mathematics*.
- [1481] F. Comets and O. Zeitouni. Information estimates and Markov random fields. *Markov Process. Related Fields*, 5(3):269–291, 1999.
- [1482] Francis Comets. *Directed polymers in random environments*, volume 2175 of *Lecture Notes in Mathematics*. Springer, Cham, 2017. Lecture notes from the 46th Probability Summer School held in Saint-Flour, 2016.
- [1483] Joseph G. Conlon and Peder A. Olsen. A Brownian motion version of the directed polymer problem. *J. Statist. Phys.*, 84(3-4):415–454, 1996.
- [1484] Adrian Constantin and Joachim Escher. Well-posedness, global existence, and blowup phenomena for a periodic quasi-linear hyperbolic equation. *Comm. Pure Appl. Math.*, 51(5):475–504, 1998.
- [1485] Pierluigi Contucci and Cristian Giardinà. Spin-glass stochastic stability: a rigorous proof. *Ann. Henri Poincaré*, 6(5):915–923, 2005.
- [1486] Daniel Conus and Robert C. Dalang. The non-linear stochastic wave equation in high dimensions. *Electron. J. Probab.*, 13:no. 22, 629–670, 2008.
- [1487] Daniel Conus, Mathew Joseph, and Davar Khoshnevisan. Correlation-length bounds, and estimates for intermittent islands in parabolic SPDEs. *Electron. J. Probab.*, 17:no. 102, 15, 2012.
- [1488] Daniel Conus, Mathew Joseph, Davar Khoshnevisan, and Shang-Yuan Shiu. Intermittency and chaos for a nonlinear stochastic wave equation in dimension 1. In *Malliavin calculus and stochastic analysis*, volume 34 of *Springer Proc. Math. Stat.*, pages 251–279. Springer, New York, 2013.
- [1489] Daniel Conus, Mathew Joseph, Davar Khoshnevisan, and Shang-Yuan Shiu. On the chaotic character of the stochastic heat equation, II. *Probab. Theory Related Fields*, 156(3-4):483–533, 2013.
- [1490] Daniel Conus, Mathew Joseph, and Davar Khoshnevisan. On the chaotic character of the stochastic heat equation, before the onset of intermittency. *Ann. Probab.*, 41(3B):2225–2260, 2013.



- [1491] Daniel Conus, Mathew Joseph, Davar Khoshnevisan, and Shang-Yuan Shiu. Initial measures for the stochastic heat equation. *Ann. Inst. Henri Poincaré Probab. Stat.*, 50(1):136–153, 2014.
- [1492] Daniel Conus and Davar Khoshnevisan. Weak nonmild solutions to some SPDEs. *Illinois J. Math.*, 54(4):1329–1341 (2012), 2010.
- [1493] Daniel Conus and Davar Khoshnevisan. On the existence and position of the farthest peaks of a family of stochastic heat and wave equations. *Probab. Theory Related Fields*, 152(3-4):681–701, 2012.
- [1494] Daniel Conus. Moments for the parabolic Anderson model: on a result by Hu and Nualart. *Commun. Stoch. Anal.*, 7(1):125–152, 2013.
- [1495] Nicholas A. Cook, Hoi H. Nguyen, Oren Yakir, and Ofer Zeitouni. Universality of Poisson limits for moduli of roots of Kac polynomials. *Int. Math. Res. Not. IMRN*, (8):6648–6683, 2023.
- [1496] Nicholas Cook and Ofer Zeitouni. Maximum of the characteristic polynomial for a random permutation matrix. *Comm. Pure Appl. Math.*, 73(8):1660–1731, 2020.
- [1497] Shaun Cooper. *Ramanujan’s theta functions*. Springer, Cham, 2017.
- [1498] José Manuel Corcuera, João Guerra, David Nualart, and Wim Schoutens. Optimal investment in a Lévy market. *Appl. Math. Optim.*, 53(3):279–309, 2006.
- [1499] José M. Corcuera, Peter Imkeller, Arturo Kohatsu-Higa, and David Nualart. Additional utility of insiders with imperfect dynamical information. *Finance Stoch.*, 8(3):437–450, 2004.
- [1500] José Manuel Corcuera, David Nualart, and Wim Schoutens. Completion of a Lévy market by power-jump assets. *Finance Stoch.*, 9(1):109–127, 2005.
- [1501] José Manuel Corcuera, David Nualart, and Wim Schoutens. Moment derivatives and Lévy-type market completion. In *Exotic option pricing and advanced Lévy models*, pages 169–193. Wiley, Chichester, 2005.
- [1502] José Manuel Corcuera, David Nualart, and Jeannette H. C. Woerner. Power variation of some integral fractional processes. *Bernoulli*, 12(4):713–735, 2006.
- [1503] José Manuel Corcuera, David Nualart, and Jeannette H. C. Woerner. A functional central limit theorem for the realized power variation of integrated stable processes. *Stoch. Anal. Appl.*, 25(1):169–186, 2007.
- [1504] José Manuel Corcuera, David Nualart, and Jeannette H. C. Woerner. Convergence of certain functionals of integral fractional processes. *J. Theoret. Probab.*, 22(4):856–870, 2009.
- [1505] José Manuel Corcuera, David Nualart, and Mark Podolskij. Asymptotics of weighted random sums. *Commun. Appl. Ind. Math.*, 6(1):e–486, 11, 2014.
- [1506] H. O. Cordes. Zero order a priori estimates for solutions of elliptic differential equations. In *Proc. Sympos. Pure Math., Vol. IV*, pages 157–166. American Mathematical Society, Providence, R.I., 1961.
- [1507] R. M. Corless, G. H. Gonnet, D. E. G. Hare, D. J. Jeffrey, and D. E. Knuth. On the Lambert  $W$  function. *Adv. Comput. Math.*, 5(4):329–359, 1996.
- [1508] J. Corneli, I. Corwin, S. Hurder, V. Sesum, Y. Xu, E. Adams, D. Davis, M. Lee, R. Visocchi, and N. Hoffman. Double bubbles in Gauss space and spheres. *Houston J. Math.*, 34(1):181–204, 2008.

- [1509] Carmen Cortázar and Manuel Elgueta. Unstability of the steady solution of a nonlinear reaction-diffusion equation. *Houston J. Math.*, 17(2):149–155, 1991.
- [1510] Carmen Cortázar, Manuel del Pino, and Manuel Elgueta. On the blow-up set for  $u_t = \Delta u^m + u^m$ ,  $m > 1$ . *Indiana Univ. Math. J.*, 47(2):541–561, 1998.
- [1511] Ivan Z. Corwin, Percy A. Deift, and Alexander R. Its. Harold Widom’s work in random matrix theory. *Bull. Amer. Math. Soc. (N.S.)*, 59(2):155–173, 2022.
- [1512] Ivan Corwin and Evgeni Dimitrov. Transversal fluctuations of the ASEP, stochastic six vertex model, and Hall-Littlewood Gibbsian line ensembles. *Comm. Math. Phys.*, 363(2):435–501, 2018.
- [1513] Ivan Corwin, Patrik L. Ferrari, and Sandrine Péché. Limit processes for TASEP with shocks and rarefaction fans. *J. Stat. Phys.*, 140(2):232–267, 2010.
- [1514] Ivan Corwin, Patrik L. Ferrari, and Sandrine Péché. Universality of slow decorrelation in KPZ growth. *Ann. Inst. Henri Poincaré Probab. Stat.*, 48(1):134–150, 2012.
- [1515] Ivan Corwin, Promit Ghosal, Hao Shen, and Li-Cheng Tsai. Stochastic PDE limit of the six vertex model. *Comm. Math. Phys.*, 375(3):1945–2038, 2020.
- [1516] Ivan Corwin, Promit Ghosal, and Konstantin Matetski. Stochastic PDE limit of the dynamic ASEP. *Comm. Math. Phys.*, 380(3):1025–1089, 2020.
- [1517] Ivan Corwin, Promit Ghosal, and Alan Hammond. KPZ equation correlations in time. *Ann. Probab.*, 49(2):832–876, 2021.
- [1518] Ivan Corwin and Promit Ghosal. KPZ equation tails for general initial data. *Electron. J. Probab.*, 25:Paper No. 66, 38, 2020.
- [1519] Ivan Corwin and Promit Ghosal. Lower tail of the KPZ equation. *Duke Math. J.*, 169(7):1329–1395, 2020.
- [1520] Ivan Corwin and Yu Gu. Kardar-Parisi-Zhang equation and large deviations for random walks in weak random environments. *J. Stat. Phys.*, 166(1):150–168, 2017.
- [1521] Ivan Corwin and Alan Hammond. Brownian Gibbs property for Airy line ensembles. *Invent. Math.*, 195(2):441–508, 2014.
- [1522] Ivan Corwin and Alan Hammond. KPZ line ensemble. *Probab. Theory Related Fields*, 166(1-2):67–185, 2016.
- [1523] Ivan Corwin, Zhipeng Liu, and Dong Wang. Fluctuations of TASEP and LPP with general initial data. *Ann. Appl. Probab.*, 26(4):2030–2082, 2016.
- [1524] Ivan Corwin, Konstantin Matveev, and Leonid Petrov. The  $q$ -Hahn PushTASEP. *Int. Math. Res. Not. IMRN*, (3):2210–2249, 2021.
- [1525] Ivan Corwin and Frank Morgan. The Gauss-Bonnet formula on surfaces with densities. *Involve*, 4(2):199–202, 2011.
- [1526] Ivan Corwin and Mihai Nica. Intermediate disorder directed polymers and the multi-layer extension of the stochastic heat equation. *Electron. J. Probab.*, 22:Paper No. 13, 49, 2017.
- [1527] Ivan Corwin, Neil O’Connell, Timo Seppäläinen, and Nikolaos Zygouras. Tropical combinatorics and Whittaker functions. *Duke Math. J.*, 163(3):513–563, 2014.
- [1528] Ivan Corwin and Shalin Parekh. Limit shape of subpartition-maximizing partitions. *J. Stat. Phys.*, 180(1-6):597–611, 2020.

- [1529] Ivan Corwin and Leonid Petrov. The  $q$ -PushASEP: a new integrable model for traffic in  $1+1$  dimension. *J. Stat. Phys.*, 160(4):1005–1026, 2015.
- [1530] Ivan Corwin and Leonid Petrov. Stochastic higher spin vertex models on the line. *Comm. Math. Phys.*, 343(2):651–700, 2016.
- [1531] Ivan Corwin and Leonid Petrov. Correction to: Stochastic higher spin vertex models on the line. *Comm. Math. Phys.*, 371(1):353–355, 2019.
- [1532] Ivan Corwin, Jeremy Quastel, and Daniel Remenik. Continuum statistics of the  $\text{Airy}_2$  process. *Comm. Math. Phys.*, 317(2):347–362, 2013.
- [1533] Ivan Corwin, Jeremy Quastel, and Daniel Remenik. Renormalization fixed point of the KPZ universality class. *J. Stat. Phys.*, 160(4):815–834, 2015.
- [1534] Ivan Corwin and Jeremy Quastel. Crossover distributions at the edge of the rarefaction fan. *Ann. Probab.*, 41(3A):1243–1314, 2013.
- [1535] Ivan Corwin, Timo Seppäläinen, and Hao Shen. The strict-weak lattice polymer. *J. Stat. Phys.*, 160(4):1027–1053, 2015.
- [1536] Ivan Corwin, Hao Shen, and Li-Cheng Tsai. ASEP( $q, j$ ) converges to the KPZ equation. *Ann. Inst. Henri Poincaré Probab. Stat.*, 54(2):995–1012, 2018.
- [1537] Ivan Corwin and Hao Shen. Open ASEP in the weakly asymmetric regime. *Comm. Pure Appl. Math.*, 71(10):2065–2128, 2018.
- [1538] Ivan Corwin and Hao Shen. Some recent progress in singular stochastic partial differential equations. *Bull. Amer. Math. Soc. (N.S.)*, 57(3):409–454, 2020.
- [1539] Ivan Corwin and Xin Sun. Ergodicity of the Airy line ensemble. *Electron. Commun. Probab.*, 19:no. 49, 11, 2014.
- [1540] Ivan Corwin and Fabio Lucio Toninelli. Stationary measure of the driven two-dimensional  $q$ -Whittaker particle system on the torus. *Electron. Commun. Probab.*, 21:Paper No. 44, 12, 2016.
- [1541] Ivan Corwin and Li-Cheng Tsai. KPZ equation limit of higher-spin exclusion processes. *Ann. Probab.*, 45(3):1771–1798, 2017.
- [1542] Ivan Corwin and Li-Cheng Tsai. SPDE limit of weakly inhomogeneous ASEP. *Electron. J. Probab.*, 25:Paper No. 156, 55, 2020.
- [1543] Ivan Zachary Corwin. *The Kardar-Parisi-Zhang Equation and Universality Class*. ProQuest LLC, Ann Arbor, MI, 2011. Thesis (Ph.D.)—New York University.
- [1544] Ivan Corwin. The Kardar-Parisi-Zhang equation and universality class. *Random Matrices Theory Appl.*, 1(1):1130001, 76, 2012.
- [1545] Ivan Corwin. Macdonald processes, quantum integrable systems and the Kardar-Parisi-Zhang universality class. In *Proceedings of the International Congress of Mathematicians—Seoul 2014. Vol. III*, pages 1007–1034. Kyung Moon Sa, Seoul, 2014.
- [1546] Ivan Corwin. Two ways to solve ASEP. In *Topics in percolative and disordered systems*, volume 69 of *Springer Proc. Math. Stat.*, pages 1–13. Springer, New York, 2014.
- [1547] Ivan Corwin. The  $q$ -Hahn boson process and  $q$ -Hahn TASEP. *Int. Math. Res. Not. IMRN*, (14):5577–5603, 2015.
- [1548] I. Corwin. Kardar-Parisi-Zhang universality. *Notices Amer. Math. Soc.*, 63(3):230–239, 2016.

- [1549] Ivan Corwin. Kardar-Parisi-Zhang universality [reprint of MR3445162]. *Eur. Math. Soc. Newsl.*, (101):19–27, 2016.
- [1550] Ivan Corwin. Commentary on “Longest increasing subsequences: from patience sorting to the Baik-Deift-Johansson theorem” by David Aldous and Persi Diaconis. *Bull. Amer. Math. Soc. (N.S.)*, 55(3):363–374, 2018.
- [1551] Ivan Corwin. Exactly solving the KPZ equation. In *Random growth models*, volume 75 of *Proc. Sympos. Appl. Math.*, pages 203–254. Amer. Math. Soc., Providence, RI, 2018.
- [1552] Ivan Corwin. Invariance of polymer partition functions under the geometric RSK correspondence. In *Stochastic analysis, random fields and integrable probability—Fukuoka 2019*, volume 87 of *Adv. Stud. Pure Math.*, pages 89–136. Math. Soc. Japan, Tokyo, [2021] ©2021.
- [1553] Ivan Z. Corwin. Harold Widom tribute. *Bull. Amer. Math. Soc. (N.S.)*, 59(2):269–270, 2022.
- [1554] Clément Cosco, Shuta Nakajima, and Makoto Nakashima. Law of large numbers and fluctuations in the sub-critical and  $L^2$  regions for SHE and KPZ equation in dimension  $d \geq 3$ . *Stochastic Process. Appl.*, 151:127–173, 2022.
- [1555] Clément Cosco and Shuta Nakajima. Gaussian fluctuations for the directed polymer partition function in dimension  $d \geq 3$  and in the whole  $L^2$ -region. *Ann. Inst. Henri Poincaré Probab. Stat.*, 57(2):872–889, 2021.
- [1556] Clément Cosco, Inbar Seroussi, and Ofer Zeitouni. Directed polymers on infinite graphs. *Comm. Math. Phys.*, 386(1):395–432, 2021.
- [1557] Clément Cosco and Ofer Zeitouni. Moments of partition functions of 2D Gaussian polymers in the weak disorder regime-I. *Comm. Math. Phys.*, 403(1):417–450, 2023.
- [1558] Martin Costabel and Monique Dauge. Un résultat de densité pour les équations de Maxwell régularisées dans un domaine lipschitzien. *C. R. Acad. Sci. Paris Sér. I Math.*, 327(9):849–854, 1998.
- [1559] Michele Coti Zelati and Martin Hairer. A noise-induced transition in the Lorenz system. *Comm. Math. Phys.*, 383(3):2243–2274, 2021.
- [1560] L. Coutin and L. Decreusefond. Stochastic Volterra equations with singular kernels. In *Stochastic analysis and mathematical physics*, volume 50 of *Progr. Probab.*, pages 39–50. Birkhäuser Boston, Boston, MA, 2001.
- [1561] Laure Coutin, David Nualart, and Ciprian A. Tudor. Tanaka formula for the fractional Brownian motion. *Stochastic Process. Appl.*, 94(2):301–315, 2001.
- [1562] J. Theodore Cox, Klaus Fleischmann, and Andreas Greven. Comparison of interacting diffusions and an application to their ergodic theory. *Probab. Theory Related Fields*, 105(4):513–528, 1996.
- [1563] M. Cranston, L. Korolov, S. Molchanov, and B. Vainberg. Continuous model for homopolymers. *J. Funct. Anal.*, 256(8):2656–2696, 2009.
- [1564] M. Cranston, T. S. Mountford, and T. Shiga. Lyapunov exponents for the parabolic Anderson model. *Acta Math. Univ. Comenian. (N.S.)*, 71(2):163–188, 2002.
- [1565] M. Cranston, T. S. Mountford, and T. Shiga. Lyapunov exponent for the parabolic Anderson model with Lévy noise. *Probab. Theory Related Fields*, 132(3):321–355, 2005.
- [1566] M. Cranston and C. Mueller. A review of recent and older results on the absolute continuity of harmonic measure. In *Geometry of random motion (Ithaca, N.Y., 1987)*, volume 73 of *Contemp. Math.*, pages 9–19. Amer. Math. Soc., Providence, RI, 1988.

- [1567] Endre Csáki, Davar Khoshnevisan, and Zhan Shi. Boundary crossings and the distribution function of the maximum of Brownian sheet. *Stochastic Process. Appl.*, 90(1):1–18, 2000.
- [1568] Endre Csáki, Davar Khoshnevisan, and Zhan Shi. Capacity estimates, boundary crossings and the Ornstein-Uhlenbeck process in Wiener space. *Electron. Comm. Probab.*, 4:103–109, 1999.
- [1569] Noé Cuneo, Jean-Pierre Eckmann, Martin Hairer, and Luc Rey-Bellet. Non-equilibrium steady states for networks of oscillators. *Electron. J. Probab.*, 23:Paper No. 55, 28,, 2018.
- [1570] Giuseppe Da Prato, Arnaud Debussche, and Luciano Tubaro. A modified Kardar-Parisi-Zhang model. *Electron. Comm. Probab.*, 12:442–453, 2007.
- [1571] Giuseppe Da Prato, Arnaud Debussche, and Roger Temam. Stochastic Burgers’ equation. *NoDEA Nonlinear Differential Equations Appl.*, 1(4):389–402, 1994.
- [1572] Giuseppe Da Prato and Arnaud Debussche. Two-dimensional Navier-Stokes equations driven by a space-time white noise. *J. Funct. Anal.*, 196(1):180–210, 2002.
- [1573] Giuseppe Da Prato and Arnaud Debussche. Strong solutions to the stochastic quantization equations. *Ann. Probab.*, 31(4):1900–1916, 2003.
- [1574] G. Da Prato, K. D. Elworthy, and J. Zabczyk. Strong Feller property for stochastic semilinear equations. *Stochastic Anal. Appl.*, 13(1):35–45, 1995.
- [1575] Giuseppe Da Prato, Marco Fuhrman, and Jerzy Zabczyk. A note on regularizing properties of Ornstein-Uhlenbeck semigroups in infinite dimensions. In *Stochastic partial differential equations and applications (Trento, 2002)*, volume 227 of *Lecture Notes in Pure and Appl. Math.*, pages 167–182. Dekker, New York, 2002.
- [1576] Giuseppe Da Prato, D. G atarek, and Jerzy Zabczyk. Invariant measures for semilinear stochastic equations. *Stochastic Anal. Appl.*, 10(4):387–408, 1992.
- [1577] Giuseppe Da Prato, Benjamin Goldys, and Jerzy Zabczyk. Ornstein-Uhlenbeck semigroups in open sets of Hilbert spaces. *C. R. Acad. Sci. Paris Sér. I Math.*, 325(4):433–438, 1997.
- [1578] G. Da Prato, S. Kwapien, and J. Zabczyk. Regularity of solutions of linear stochastic equations in Hilbert spaces. *Stochastics*, 23(1):1–23, 1987.
- [1579] Giuseppe Da Prato, Paul Malliavin, and David Nualart. Compact families of Wiener functionals. *C. R. Acad. Sci. Paris Sér. I Math.*, 315(12):1287–1291, 1992.
- [1580] G. Da Prato, A. J. Pritchard, and J. Zabczyk. On minimum energy problems. *SIAM J. Control Optim.*, 29(1):209–221, 1991.
- [1581] Giuseppe Da Prato and Luciano Tubaro. Self-adjointness of some infinite-dimensional elliptic operators and application to stochastic quantization. *Probab. Theory Related Fields*, 118(1):131–145, 2000.
- [1582] Giuseppe Da Prato and Jerzy Zabczyk. *Second order partial differential equations in Hilbert spaces*, volume 293 of *London Mathematical Society Lecture Note Series*. Cambridge University Press, Cambridge, 2002.
- [1583] Giuseppe Da Prato and Jerzy Zabczyk. *Stochastic equations in infinite dimensions*, volume 152 of *Encyclopedia of Mathematics and its Applications*. Cambridge University Press, Cambridge, second edition, 2014.
- [1584] G. Da Prato and J. Zabczyk. A note on semilinear stochastic equations. *Differential Integral Equations*, 1(2):143–155, 1988.

- [1585] Giuseppe Da Prato and Jerzy Zabczyk. Smoothing properties of transition semigroups in Hilbert spaces. *Stochastics Stochastics Rep.*, 35(2):63–77, 1991.
- [1586] Giuseppe Da Prato and Jerzy Zabczyk. Nonexplosion, boundedness, and ergodicity for stochastic semilinear equations. *J. Differential Equations*, 98(1):181–195, 1992.
- [1587] Giuseppe Da Prato and Jerzy Zabczyk. A note on stochastic convolution. *Stochastic Anal. Appl.*, 10(2):143–153, 1992.
- [1588] Giuseppe Da Prato and Jerzy Zabczyk. On invariant measure for semilinear equations with dissipative nonlinearities. In *Stochastic partial differential equations and their applications (Charlotte, NC, 1991)*, volume 176 of *Lect. Notes Control Inf. Sci.*, pages 38–42. Springer, Berlin, 1992.
- [1589] Giuseppe Da Prato and Jerzy Zabczyk. *Stochastic equations in infinite dimensions*, volume 44 of *Encyclopedia of Mathematics and its Applications*. Cambridge University Press, Cambridge, 1992.
- [1590] G. Da Prato and J. Zabczyk. Evolution equations with white-noise boundary conditions. *Stochastics Stochastics Rep.*, 42(3-4):167–182, 1993.
- [1591] G. Da Prato and J. Zabczyk. Convergence to equilibrium for classical and quantum spin systems. *Probab. Theory Related Fields*, 103(4):529–552, 1995.
- [1592] Giuseppe Da Prato and Jerzy Zabczyk. Regular densities of invariant measures in Hilbert spaces. *J. Funct. Anal.*, 130(2):427–449, 1995.
- [1593] G. Da Prato and J. Zabczyk. *Ergodicity for infinite-dimensional systems*, volume 229 of *London Mathematical Society Lecture Note Series*. Cambridge University Press, Cambridge, 1996.
- [1594] Giuseppe Da Prato and Jerzy Zabczyk. Differentiability of the Feynman-Kac semigroup and a control application. *Atti Accad. Naz. Lincei Cl. Sci. Fis. Mat. Natur. Rend. Lincei (9) Mat. Appl.*, 8(3):183–188, 1997.
- [1595] Bernard Dacorogna. *Introduction to the calculus of variations*. Imperial College Press, London, third edition, 2015.
- [1596] B. E. J. Dahlberg, C. E. Kenig, J. Pipher, and G. C. Verchota. Area integral estimates for higher order elliptic equations and systems. *Ann. Inst. Fourier (Grenoble)*, 47(5):1425–1461, 1997.
- [1597] Björn E. J. Dahlberg and Carlos E. Kenig. Hardy spaces and the Neumann problem in  $L^p$  for Laplace’s equation in Lipschitz domains. *Ann. of Math. (2)*, 125(3):437–465, 1987.
- [1598] Björn E. J. Dahlberg. Estimates of harmonic measure. *Arch. Rational Mech. Anal.*, 65(3):275–288, 1977.
- [1599] Björn E. J. Dahlberg.  $L^q$ -estimates for Green potentials in Lipschitz domains. *Math. Scand.*, 44(1):149–170, 1979.
- [1600] Stephan Dahlke and Ronald A. DeVore. Besov regularity for elliptic boundary value problems. *Comm. Partial Differential Equations*, 22(1-2):1–16, 1997.
- [1601] Robert C. Dalang and Violetta Bernyk. A mathematical model for ‘Who wants to be a millionaire?’. *Math. Sci.*, 29(2):85–100, 2004.
- [1602] Robert C. Dalang and Amel Chaabouni. *Algèbre linéaire*. Enseignement des Mathématiques. [The Teaching of Mathematics]. Presses Polytechniques et Universitaires Romandes, Lausanne, 2001. Aide-mémoire, exercices et applications. [General review, exercises and applications].

- [1603] Robert C. Dalang and N. E. Frangos. The stochastic wave equation in two spatial dimensions. *Ann. Probab.*, 26(1):187–212, 1998.
- [1604] Robert C. Dalang and M.-O. Hongler. The right time to sell a stock whose price is driven by Markovian noise. *Ann. Appl. Probab.*, 14(4):2176–2201, 2004.
- [1605] Robert C. Dalang and Qiang Hou. On Markov properties of Lévy waves in two dimensions. *Stochastic Process. Appl.*, 72(2):265–287, 1997.
- [1606] Robert C. Dalang and Thomas Humeau. Lévy processes and Lévy white noise as tempered distributions. *Ann. Probab.*, 45(6B):4389–4418, 2017.
- [1607] Robert C. Dalang and Thomas Humeau. Random field solutions to linear SPDEs driven by symmetric pure jump Lévy space-time white noises. *Electron. J. Probab.*, 24:Paper No. 60, 28, 2019.
- [1608] Robert C. Dalang, Davar Khoshnevisan, and Eulalia Nualart. Hitting probabilities for systems of non-linear stochastic heat equations with additive noise. *ALEA Lat. Am. J. Probab. Math. Stat.*, 3:231–271, 2007.
- [1609] Robert C. Dalang, Davar Khoshnevisan, and Eulalia Nualart. Hitting probabilities for systems for non-linear stochastic heat equations with multiplicative noise. *Probab. Theory Related Fields*, 144(3-4):371–427, 2009.
- [1610] Robert Dalang, Davar Khoshnevisan, Carl Mueller, David Nualart, and Yimin Xiao. *A mini-course on stochastic partial differential equations*, volume 1962 of *Lecture Notes in Mathematics*. Springer-Verlag, Berlin, 2009. Held at the University of Utah, Salt Lake City, UT, May 8–19, 2006, Edited by Khoshnevisan and Firas Rassoul-Agha.
- [1611] Robert C. Dalang, Davar Khoshnevisan, Eulalia Nualart, Dongsheng Wu, and Yimin Xiao. Critical Brownian sheet does not have double points. *Ann. Probab.*, 40(4):1829–1859, 2012.
- [1612] Robert C. Dalang, Davar Khoshnevisan, and Eulalia Nualart. Hitting probabilities for systems of non-linear stochastic heat equations in spatial dimension  $k \geq 1$ . *Stoch. Partial Differ. Equ. Anal. Comput.*, 1(1):94–151, 2013.
- [1613] Robert C. Dalang, Davar Khoshnevisan, and Tusheng Zhang. Global solutions to stochastic reaction-diffusion equations with super-linear drift and multiplicative noise. *Ann. Probab.*, 47(1):519–559, 2019.
- [1614] Robert C. Dalang and Davar Khoshnevisan. Recurrent lines in two-parameter isotropic stable Lévy sheets. *Stochastic Process. Appl.*, 114(1):81–107, 2004.
- [1615] Robert C. Dalang, Cheuk Yin Lee, Carl Mueller, and Yimin Xiao. Multiple points of Gaussian random fields. *Electron. J. Probab.*, 26:Paper No. 17, 25, 2021.
- [1616] Robert C. Dalang and Olivier Lévêque. Second-order linear hyperbolic SPDEs driven by isotropic Gaussian noise on a sphere. *Ann. Probab.*, 32(1B):1068–1099, 2004.
- [1617] Robert C. Dalang and Olivier Lévêque. Second-order hyperbolic S.P.D.E.’s driven by boundary noises. In *Seminar on Stochastic Analysis, Random Fields and Applications IV*, volume 58 of *Progr. Probab.*, pages 83–93. Birkhäuser, Basel, 2004.
- [1618] Robert C. Dalang and Olivier Lévêque. Second-order hyperbolic S.P.D.E.’s driven by homogeneous Gaussian noise on a hyperplane. *Trans. Amer. Math. Soc.*, 358(5):2123–2159, 2006.
- [1619] Robert C. Dalang, Andrew Morton, and Walter Willinger. Equivalent martingale measures and no-arbitrage in stochastic securities market models. *Stochastics Stochastics Rep.*, 29(2):185–201, 1990.

- [1620] Robert C. Dalang and T. S. Mountford. Level sets, bubbles and excursions of a Brownian sheet. In *Infinite dimensional stochastic analysis (Amsterdam, 1999)*, volume 52 of *Verh. Afd. Natuurkd. 1. Reeks. K. Ned. Akad. Wet.*, pages 117–128. R. Neth. Acad. Arts Sci., Amsterdam, 2000.
- [1621] Robert C. Dalang and T. Mountford. Jordan curves in the level sets of additive Brownian motion. *Trans. Amer. Math. Soc.*, 353(9):3531–3545, 2001.
- [1622] Robert C. Dalang and T. Mountford. Eccentric behaviors of the Brownian sheet along lines. *Ann. Probab.*, 30(1):293–322, 2002.
- [1623] Robert C. Dalang and T. Mountford. Non-independence of excursions of the Brownian sheet and of additive Brownian motion. *Trans. Amer. Math. Soc.*, 355(3):967–985, 2003.
- [1624] Robert C. Dalang and T. Mountford. Nondifferentiability of curves on the Brownian sheet. *Ann. Probab.*, 24(1):182–195, 1996.
- [1625] Robert C. Dalang and T. Mountford. Points of increase of functions in the plane. *Real Anal. Exchange*, 22(2):833–841, 1996/97.
- [1626] Robert C. Dalang and T. Mountford. Points of increase of the Brownian sheet. *Probab. Theory Related Fields*, 108(1):1–27, 1997.
- [1627] Robert C. Dalang, C. Mueller, and L. Zambotti. Hitting properties of parabolic s.p.d.e.’s with reflection. *Ann. Probab.*, 34(4):1423–1450, 2006.
- [1628] Robert C. Dalang, Carl Mueller, and Roger Tribe. A Feynman-Kac-type formula for the deterministic and stochastic wave equations and other P.D.E.’s. *Trans. Amer. Math. Soc.*, 360(9):4681–4703, 2008.
- [1629] Robert C. Dalang, Carl Mueller, and Yimin Xiao. Polarity of points for Gaussian random fields. *Ann. Probab.*, 45(6B):4700–4751, 2017.
- [1630] Robert C. Dalang, Carl Mueller, and Yimin Xiao. Polarity of almost all points for systems of nonlinear stochastic heat equations in the critical dimension. *Ann. Probab.*, 49(5):2573–2598, 2021.
- [1631] Robert C. Dalang and Carl Mueller. Some non-linear S.P.D.E.’s that are second order in time. *Electron. J. Probab.*, 8:no. 1, 21, 2003.
- [1632] Robert C. Dalang and Carl Mueller. Intermittency properties in a hyperbolic Anderson problem. *Ann. Inst. Henri Poincaré Probab. Stat.*, 45(4):1150–1164, 2009.
- [1633] Robert C. Dalang and Carl Mueller. Multiple points of the Brownian sheet in critical dimensions. *Ann. Probab.*, 43(4):1577–1593, 2015.
- [1634] Robert C. Dalang and Eulalia Nualart. Potential theory for hyperbolic SPDEs. *Ann. Probab.*, 32(3A):2099–2148, 2004.
- [1635] Robert C. Dalang and Fei Pu. On the density of the supremum of the solution to the linear stochastic heat equation. *Stoch. Partial Differ. Equ. Anal. Comput.*, 8(3):461–508, 2020.
- [1636] Robert C. Dalang and Fei Pu. Optimal lower bounds on hitting probabilities for stochastic heat equations in spatial dimension  $k \geq 1$ . *Electron. J. Probab.*, 25:Paper No. 40, 31, 2020.
- [1637] Robert C. Dalang and Fei Pu. Optimal lower bounds on hitting probabilities for non-linear systems of stochastic fractional heat equations. *Stochastic Process. Appl.*, 131:359–393, 2021.
- [1638] Robert C. Dalang and Lluís Quer-Sardanyons. Stochastic integrals for spde’s: a comparison. *Expo. Math.*, 29(1):67–109, 2011.



- [1639] Robert C. Dalang and Francesco Russo. A prediction problem for the Brownian sheet. *J. Multivariate Anal.*, 26(1):16–47, 1988.
- [1640] Robert C. Dalang and Marta Sanz-Solé. Regularity of the sample paths of a class of second-order spde's. *J. Funct. Anal.*, 227(2):304–337, 2005.
- [1641] Robert C. Dalang and Marta Sanz-Solé. Hölder-Sobolev regularity of the solution to the stochastic wave equation in dimension three. *Mem. Amer. Math. Soc.*, 199(931):vi+70, 2009.
- [1642] Robert C. Dalang and Marta Sanz-Solé. Criteria for hitting probabilities with applications to systems of stochastic wave equations. *Bernoulli*, 16(4):1343–1368, 2010.
- [1643] Robert C. Dalang and Marta Sanz-Solé. Hitting probabilities for nonlinear systems of stochastic waves. *Mem. Amer. Math. Soc.*, 237(1120):v+75, 2015.
- [1644] Robert C. Dalang and Albert N. Shiryaev. A quickest detection problem with an observation cost. *Ann. Appl. Probab.*, 25(3):1475–1512, 2015.
- [1645] Robert C. Dalang, L. E. Trotter, Jr., and D. de Werra. On randomized stopping points and perfect graphs. *J. Combin. Theory Ser. B*, 45(3):320–344, 1988.
- [1646] Robert C. Dalang and Laura Vinckenbosch. Optimal expulsion and optimal confinement of a Brownian particle with a switching cost. *Stochastic Process. Appl.*, 124(12):4050–4079, 2014.
- [1647] Robert C. Dalang and John B. Walsh. Time-reversal in hyperbolic s.p.d.e.'s. *Ann. Probab.*, 30(1):213–252, 2002.
- [1648] Robert C. Dalang and John B. Walsh. The sharp Markov property of Lévy sheets. *Ann. Probab.*, 20(2):591–626, 1992.
- [1649] Robert C. Dalang and John B. Walsh. The sharp Markov property of the Brownian sheet and related processes. *Acta Math.*, 168(3-4):153–218, 1992.
- [1650] Robert C. Dalang and John B. Walsh. Geography of the level sets of the Brownian sheet. *Probab. Theory Related Fields*, 96(2):153–176, 1993.
- [1651] Robert C. Dalang and John B. Walsh. The structure of a Brownian bubble. *Probab. Theory Related Fields*, 96(4):475–501, 1993.
- [1652] Robert C. Dalang and John B. Walsh. Local structure of level sets of the Brownian sheet. In *Stochastic analysis: random fields and measure-valued processes (Ramat Gan, 1993/1995)*, volume 10 of *Israel Math. Conf. Proc.*, pages 57–64. Bar-Ilan Univ., Ramat Gan, 1996.
- [1653] Robert C. Dalang and Tusheng Zhang. Hölder continuity of solutions of SPDEs with reflection. *Commun. Math. Stat.*, 1(2):133–142, 2013.
- [1654] Robert C. Dalang. Corrections to: “Extending the martingale measure stochastic integral with applications to spatially homogeneous s.p.d.e.'s”. *Electron. J. Probab.*, 6:no. 6, 5, 2001.
- [1655] Robert C. Dalang. Level sets and excursions of the Brownian sheet. In *Topics in spatial stochastic processes (Martina Franca, 2001)*, volume 1802 of *Lecture Notes in Math.*, pages 167–208. Springer, Berlin, 2003.
- [1656] Robert C. Dalang. Une démonstration élémentaire du théorème central limite. *Elem. Math.*, 61(2):65–73, 2006.
- [1657] Robert C. Dalang. The stochastic wave equation. In *A minicourse on stochastic partial differential equations*, volume 1962 of *Lecture Notes in Math.*, pages 39–71. Springer, Berlin, 2009.
- [1658] Robert C. Dalang. Srishti Dhar Chatterji (1935–2017). *Expo. Math.*, 35(4):363, 2017.

- [1659] Robert C. Dalang. Hitting probabilities for systems of stochastic PDEs: an overview. In *Stochastic partial differential equations and related fields*, volume 229 of *Springer Proc. Math. Stat.*, pages 159–176. Springer, Cham, 2018.
- [1660] Robert C. Dalang. Obituary: Richard V. Kadison (1925–2018). *Expo. Math.*, 37(1):1, 2019.
- [1661] Robert C. Dalang. Sur l’arrêt optimal de processus à temps multidimensionnel continu. In *Seminar on probability, XVIII*, volume 1059 of *Lecture Notes in Math.*, pages 379–390. Springer, Berlin, 1984.
- [1662] Robert C. Dalang. Correction to: “On optimal stopping of processes with continuous multidimensional time” [it Séminaire de probabilités, XVIII, 379–390, Lecture Notes in Math., 1059, Springer, Berlin, 1984; MR0770972 (86j:60108)]. In *Séminaire de probabilités, XIX, 1983/84*, volume 1123 of *Lecture Notes in Math.*, page 504. Springer, Berlin, 1985.
- [1663] Robert C. Dalang. On infinite perfect graphs and randomized stopping points on the plane. *Probab. Theory Related Fields*, 78(3):357–378, 1988.
- [1664] Robert C. Dalang. On stopping points in the plane that lie on a unique optional increasing path. *Stochastics*, 24(3):245–268, 1988.
- [1665] Robert C. Dalang. Optimal stopping of two-parameter processes on nonstandard probability spaces. *Trans. Amer. Math. Soc.*, 313(2):697–719, 1989.
- [1666] Robert C. Dalang. Randomization in the two-armed bandit problem. *Ann. Probab.*, 18(1):218–225, 1990.
- [1667] Robert C. Dalang. Extending the martingale measure stochastic integral with applications to spatially homogeneous s.p.d.e.’s. *Electron. J. Probab.*, 4:no. 6, 29, 1999.
- [1668] D. J. Daley and D. Vere-Jones. *An introduction to the theory of point processes. Vol. I. Probability and its Applications (New York)*. Springer-Verlag, New York, second edition, 2003. Elementary theory and methods.
- [1669] Federico Dalmao, Ivan Nourdin, Giovanni Peccati, and Maurizia Rossi. Phase singularities in complex arithmetic random waves. *Electron. J. Probab.*, 24:Paper No. 71, 45, 2019.
- [1670] Michael Damron, Firas Rassoul-Agha, and Timo Seppäläinen. Random growth models. *Notices Amer. Math. Soc.*, 63(9):1004–1008, 2016.
- [1671] Daniel Daners. Heat kernel estimates for operators with boundary conditions. *Math. Nachr.*, 217:13–41, 2000.
- [1672] Duc Trong Dang, Erkan Nane, Dang Minh Nguyen, and Nguyen Huy Tuan. Continuity of solutions of a class of fractional equations. *Potential Anal.*, 49(3):423–478, 2018.
- [1673] Konstantinos Dareiotis and Máté Gerencsér. On the boundedness of solutions of SPDEs. *Stoch. Partial Differ. Equ. Anal. Comput.*, 3(1):84–102, 2015.
- [1674] Sébastien Darses, Ivan Nourdin, and Giovanni Peccati. Differentiating  $\sigma$ -fields for Gaussian and shifted Gaussian processes. *Stochastics*, 81(1):79–97, 2009.
- [1675] Sébastien Darses, Ivan Nourdin, and David Nualart. Limit theorems for nonlinear functionals of Volterra processes via white noise analysis. *Bernoulli*, 16(4):1262–1293, 2010.
- [1676] Sébastien Darses and Ivan Nourdin. Dynamical properties and characterization of gradient drift diffusion. *Electron. Comm. Probab.*, 12:390–400, 2007.
- [1677] Sébastien Darses and Ivan Nourdin. Stochastic derivatives for fractional diffusions. *Ann. Probab.*, 35(5):1998–2020, 2007.

- [1678] Sébastien Darses and Ivan Nourdin. Asymptotic expansions at any time for scalar fractional SDEs with Hurst index  $H > 1/2$ . *Bernoulli*, 14(3):822–837, 2008.
- [1679] Sumit R. Das, Avinash Dhar, Anirvan M. Sengupta, and Spenta R. Wadia. New critical behavior in  $d = 0$  large- $N$  matrix models. *Modern Phys. Lett. A*, 5(13):1041–1056, 1990.
- [1680] Sayan Das and Li-Cheng Tsai. Fractional moments of the stochastic heat equation. *Ann. Inst. Henri Poincaré Probab. Stat.*, 57(2):778–799, 2021.
- [1681] Monique Dauge. *Elliptic boundary value problems on corner domains*, volume 1341 of *Lecture Notes in Mathematics*. Springer-Verlag, Berlin, 1988. Smoothness and asymptotics of solutions.
- [1682] François David, Bertrand Duplantier, and Emmanuel Guitter. Renormalization theory for interacting crumpled manifolds. *Nuclear Phys. B*, 394(3):555–664, 1993.
- [1683] François David, Bertrand Duplantier, and Emmanuel Guitter. Renormalization of crumpled manifolds. *Phys. Rev. Lett.*, 70(15):2205–2208, 1993.
- [1684] François David, Bertrand Duplantier, and Emmanuel Guitter. Renormalization and hyper-scaling for self-avoiding manifold models. *Phys. Rev. Lett.*, 72(3):311–315, 1994.
- [1685] F. David. Conformal field theories coupled to 2-D gravity in the conformal gauge. *Modern Phys. Lett. A*, 3(17):1651–1656, 1988.
- [1686] Brian Davies. *Integral transforms and their applications*, volume 41 of *Texts in Applied Mathematics*. Springer-Verlag, New York, third edition, 2002.
- [1687] E. B. Davies. The equivalence of certain heat kernel and Green function bounds. *J. Funct. Anal.*, 71(1):88–103, 1987.
- [1688] E. B. Davies. *Heat kernels and spectral theory*, volume 92 of *Cambridge Tracts in Mathematics*. Cambridge University Press, Cambridge, 1989.
- [1689] E. B. Davies. *Heat kernels and spectral theory*, volume 92 of *Cambridge Tracts in Mathematics*. Cambridge University Press, Cambridge, 1990.
- [1690] E. B. Davies. *Spectral theory and differential operators*, volume 42 of *Cambridge Studies in Advanced Mathematics*. Cambridge University Press, Cambridge, 1995.
- [1691] Juan Dávila, Julian Fernández Bonder, Julio D. Rossi, Pablo Groisman, and Mariela Sued. Numerical analysis of stochastic differential equations with explosions. *Stoch. Anal. Appl.*, 23(4):809–825, 2005.
- [1692] Harold T. Davis. *Introduction to nonlinear differential and integral equations*. Dover Publications, Inc., New York, 1962.
- [1693] Burgess Davis. On the  $L^p$  norms of stochastic integrals and other martingales. *Duke Math. J.*, 43(4):697–704, 1976.
- [1694] Youri Davydov, Davar Khoshnevisan, Zhan Shi, and Ričardas Zitikis. Convex rearrangements, generalized Lorenz curves, and correlated Gaussian data. *J. Statist. Plann. Inference*, 137(3):915–934, 2007.
- [1695] Donald A. Dawson, Alison M. Etheridge, Klaus Fleischmann, Leonid Mytnik, Edwin A. Perkins, and Jie Xiong. Mutually catalytic branching in the plane: finite measure states. *Ann. Probab.*, 30(4):1681–1762, 2002.
- [1696] Donald A. Dawson, Alison M. Etheridge, Klaus Fleischmann, Leonid Mytnik, Edwin A. Perkins, and Jie Xiong. Mutually catalytic branching in the plane: infinite measure states. *Electron. J. Probab.*, 7:No. 15, 61, 2002.

- [1697] Donald A. Dawson and Shui Feng. Large deviations for the Fleming-Viot process with neutral mutation and selection. II. *Stochastic Process. Appl.*, 92(1):131–162, 2001.
- [1698] Donald A. Dawson and Shui Feng. Large deviations for the Fleming-Viot process with neutral mutation and selection. *Stochastic Process. Appl.*, 77(2):207–232, 1998.
- [1699] Donald A. Dawson, Klaus Fleischmann, and Carl Mueller. Finite time extinction of superprocesses with catalysts. *Ann. Probab.*, 28(2):603–642, 2000.
- [1700] Donald A. Dawson, Klaus Fleischmann, Leonid Mytnik, Edwin A. Perkins, and Jie Xiong. Mutually catalytic branching in the plane: uniqueness. *Ann. Inst. H. Poincaré Probab. Statist.*, 39(1):135–191, 2003.
- [1701] Donald A. Dawson, Klaus Fleischmann, Yi Li, and Carl Mueller. Singularity of super-Brownian local time at a point catalyst. *Ann. Probab.*, 23(1):37–55, 1995.
- [1702] Donald A. Dawson and Kenneth J. Hochberg. The carrying dimension of a stochastic measure diffusion. *Ann. Probab.*, 7(4):693–703, 1979.
- [1703] D. A. Dawson, I. Iscoe, and E. A. Perkins. Super-Brownian motion: path properties and hitting probabilities. *Probab. Theory Related Fields*, 83(1-2):135–205, 1989.
- [1704] Donald A. Dawson and Thomas G. Kurtz. Applications of duality to measure-valued diffusion processes. In *Advances in filtering and optimal stochastic control (Cocoyoc, 1982)*, volume 42 of *Lect. Notes Control Inf. Sci.*, pages 91–105. Springer, Berlin, 1982.
- [1705] D. Dawson, Y. Li, and C. Mueller. The support of measure-valued branching processes in a random environment. *Ann. Probab.*, 23(4):1692–1718, 1995.
- [1706] Donald A. Dawson and Zenghu Li. Stochastic equations, flows and measure-valued processes. *Ann. Probab.*, 40(2):813–857, 2012.
- [1707] Donald A. Dawson and Edwin Perkins. *Superprocesses at Saint-Flour*. Probability at Saint-Flour. Springer, Heidelberg, 2012.
- [1708] Donald A. Dawson and Edwin A. Perkins. Historical processes. *Mem. Amer. Math. Soc.*, 93(454):iv+179, 1991.
- [1709] Donald A. Dawson and Habib Salehi. Spatially homogeneous random evolutions. *J. Multivariate Anal.*, 10(2):141–180, 1980.
- [1710] D. A. Dawson, J. Vaillancourt, and H. Wang. Stochastic partial differential equations for a class of interacting measure-valued diffusions. *Ann. Inst. H. Poincaré Probab. Statist.*, 36(2):167–180, 2000.
- [1711] D. A. Dawson. Geostochastic calculus. *Canad. J. Statist.*, 6(2):143–168, 1978.
- [1712] Donald A. Dawson. Infinitely divisible random measures and superprocesses. In *Stochastic analysis and related topics (Silivri, 1990)*, volume 31 of *Progr. Probab.*, pages 1–129. Birkhäuser Boston, Boston, MA, 1992.
- [1713] Donald A. Dawson. Measure-valued Markov processes. In *École d’Été de Probabilités de Saint-Flour XXI—1991*, volume 1541 of *Lecture Notes in Math.*, pages 1–260. Springer, Berlin, 1993.
- [1714] A. De Masi, E. Presutti, and E. Scacciatelli. The weakly asymmetric simple exclusion process. *Ann. Inst. H. Poincaré Probab. Statist.*, 25(1):1–38, 1989.
- [1715] Latifa Debbi and Marco Dozzi. On the solutions of nonlinear stochastic fractional partial differential equations in one spatial dimension. *Stochastic Process. Appl.*, 115(11):1764–1781, 2005.

- [1716] Latifa Debbi. Explicit solutions of some fractional partial differential equations via stable subordinators. *J. Appl. Math. Stoch. Anal.*, pages Art. ID 93502, 18, 2006.
- [1717] R. Dante DeBlassie. Iterated Brownian motion in an open set. *Ann. Appl. Probab.*, 14(3):1529–1558, 2004.
- [1718] B. Deconinck. Multidimensional theta functions. In *NIST handbook of mathematical functions*, pages 537–547. U.S. Dept. Commerce, Washington, DC, 2010.
- [1719] Laurent Decreusefond, Yao Zhong Hu, and Ali Süleyman Üstünel. Une inégalité d’interpolation sur l’espace de Wiener. *C. R. Acad. Sci. Paris Sér. I Math.*, 317(11):1065–1067, 1993.
- [1720] Laurent Decreusefond and David Nualart. Flow properties of differential equations driven by fractional Brownian motion. In *Stochastic differential equations: theory and applications*, volume 2 of *Interdiscip. Math. Sci.*, pages 249–262. World Sci. Publ., Hackensack, NJ, 2007.
- [1721] Laurent Decreusefond and David Nualart. Hitting times for Gaussian processes. *Ann. Probab.*, 36(1):319–330, 2008.
- [1722] L. Decreusefond. Regularity properties of some stochastic Volterra integrals with singular kernel. *Potential Anal.*, 16(2):139–149, 2002.
- [1723] Rui J. P. Defigueiredo and Yaozhong Hu. On nonlinear filtering of non-Gaussian processes through Volterra series. In *Volterra equations and applications (Arlington, TX, 1996)*, volume 10 of *Stability Control Theory Methods Appl.*, pages 197–202. Gordon and Breach, Amsterdam, 2000.
- [1724] P. A. Deift. *Orthogonal polynomials and random matrices: a Riemann-Hilbert approach*, volume 3 of *Courant Lecture Notes in Mathematics*. New York University, Courant Institute of Mathematical Sciences, New York; American Mathematical Society, Providence, RI, 1999.
- [1725] Pierre Del Moral and Samy Tindel. A Berry-Esseen theorem for Feynman-Kac and interacting particle models. *Ann. Appl. Probab.*, 15(1B):941–962, 2005.
- [1726] Manuel Del Pino and Jean Dolbeault. Best constants for Gagliardo-Nirenberg inequalities and applications to nonlinear diffusions. *J. Math. Pures Appl. (9)*, 81(9):847–875, 2002.
- [1727] François Delarue, Stéphane Menozzi, and Eulalia Nualart. The Landau equation for Maxwellian molecules and the Brownian motion on  $SO_N(R)$ . *Electron. J. Probab.*, 20:no. 92, 39, 2015.
- [1728] Francisco Delgado-Vences, David Nualart, and Guangqu Zheng. A central limit theorem for the stochastic wave equation with fractional noise. *Ann. Inst. Henri Poincaré Probab. Stat.*, 56(4):3020–3042, 2020.
- [1729] Francisco J. Delgado-Vences and Marta Sanz-Solé. Approximation of a stochastic wave equation in dimension three, with application to a support theorem in Hölder norm. *Bernoulli*, 20(4):2169–2216, 2014.
- [1730] Francisco J. Delgado-Vences and Marta Sanz-Solé. Approximation of a stochastic wave equation in dimension three, with application to a support theorem in Hölder norm: the non-stationary case. *Bernoulli*, 22(3):1572–1597, 2016.
- [1731] Rosario Delgado and Marta Sanz-Solé. A Fubini theorem for generalized Stratonovich integrals. In *Seminar on Stochastic Analysis, Random Fields and Applications (Ascona, 1993)*, volume 36 of *Progr. Probab.*, pages 99–110. Birkhäuser, Basel, 1995.
- [1732] Rosario Delgado and Marta Sanz-Solé. Green formulas in anticipating stochastic calculus. *Stochastic Process. Appl.*, 57(1):113–148, 1995.

- [1733] Rosario Delgado and Marta Sanz. The Hu-Meyer formula for nondeterministic kernels. *Stochastics Stochastics Rep.*, 38(3):149–158, 1992.
- [1734] Claude Dellacherie and Paul-André Meyer. *Probabilities and potential*, volume 29 of *North-Holland Mathematics Studies*. North-Holland Publishing Co., Amsterdam-New York, 1978.
- [1735] Claude Dellacherie and Paul-André Meyer. *Probabilities and potential. B*, volume 72 of *North-Holland Mathematics Studies*. North-Holland Publishing Co., Amsterdam, 1982. Theory of martingales, Translated from the French by J. P. Wilson.
- [1736] Bernard Delyon and Ofer Zeitouni. Lyapunov exponents for filtering problems. In *Applied stochastic analysis (London, 1989)*, volume 5 of *Stochastics Monogr.*, pages 511–521. Gordon and Breach, New York, 1991.
- [1737] Amir Dembo, Nina Gantert, Yuval Peres, and Ofer Zeitouni. Large deviations for random walks on Galton-Watson trees: averaging and uncertainty. *Probab. Theory Related Fields*, 122(2):241–288, 2002.
- [1738] Amir Dembo, Nina Gantert, and Ofer Zeitouni. Large deviations for random walk in random environment with holding times. *Ann. Probab.*, 32(1B):996–1029, 2004.
- [1739] A. Dembo, A. Guionnet, and O. Zeitouni. Moderate deviations for the spectral measure of certain random matrices. *Ann. Inst. H. Poincaré Probab. Statist.*, 39(6):1013–1042, 2003.
- [1740] Amir Dembo, Samuel Karlin, and Ofer Zeitouni. Critical phenomena for sequence matching with scoring. *Ann. Probab.*, 22(4):1993–2021, 1994.
- [1741] Amir Dembo, Samuel Karlin, and Ofer Zeitouni. Large exceedances for multidimensional Lévy processes. *Ann. Appl. Probab.*, 4(2):432–447, 1994.
- [1742] Amir Dembo, Samuel Karlin, and Ofer Zeitouni. Limit distribution of maximal non-aligned two-sequence segmental score. *Ann. Probab.*, 22(4):2022–2039, 1994.
- [1743] Amir Dembo, Eyal Lubetzky, and Ofer Zeitouni. Universality for Langevin-like spin glass dynamics. *Ann. Appl. Probab.*, 31(6):2864–2880, 2021.
- [1744] Amir Dembo, Eddy Mayer-Wolf, and Ofer Zeitouni. Exact behavior of Gaussian seminorms. *Statist. Probab. Lett.*, 23(3):275–280, 1995.
- [1745] Amir Dembo, Yuval Peres, Jay Rosen, and Ofer Zeitouni. Thick points for spatial Brownian motion: multifractal analysis of occupation measure. *Ann. Probab.*, 28(1):1–35, 2000.
- [1746] Amir Dembo, Yuval Peres, Jay Rosen, and Ofer Zeitouni. Thin points for Brownian motion. *Ann. Inst. H. Poincaré Probab. Statist.*, 36(6):749–774, 2000.
- [1747] Amir Dembo, Yuval Peres, Jay Rosen, and Ofer Zeitouni. Thick points for planar Brownian motion and the Erdos-Taylor conjecture on random walk. *Acta Math.*, 186(2):239–270, 2001.
- [1748] Amir Dembo, Yuval Peres, Jay Rosen, and Ofer Zeitouni. Thick points for intersections of planar sample paths. *Trans. Amer. Math. Soc.*, 354(12):4969–5003, 2002.
- [1749] Amir Dembo, Yuval Peres, Jay Rosen, and Ofer Zeitouni. Cover times for Brownian motion and random walks in two dimensions. *Ann. of Math. (2)*, 160(2):433–464, 2004.
- [1750] Amir Dembo, Yuval Peres, Jay Rosen, and Ofer Zeitouni. Late points for random walks in two dimensions. *Ann. Probab.*, 34(1):219–263, 2006.
- [1751] Amir Dembo, Yuval Peres, and Ofer Zeitouni. Tail estimates for one-dimensional random walk in random environment. *Comm. Math. Phys.*, 181(3):667–683, 1996.

- [1752] Amir Dembo, Yuval Peres, Jay Rosen, and Ofer Zeitouni. Thick points for transient symmetric stable processes. *Electron. J. Probab.*, 4:no. 10, 13, 1999.
- [1753] Amir Dembo, Bjorn Poonen, Qi-Man Shao, and Ofer Zeitouni. Random polynomials having few or no real zeros. *J. Amer. Math. Soc.*, 15(4):857–892, 2002.
- [1754] Amir Dembo, Jay Rosen, and Ofer Zeitouni. Limit law for the cover time of a random walk on a binary tree. *Ann. Inst. Henri Poincaré Probab. Stat.*, 57(2):830–855, 2021.
- [1755] Amir Dembo, Mykhaylo Shkolnikov, S. R. Srinivasa Varadhan, and Ofer Zeitouni. Large deviations for diffusions interacting through their ranks. *Comm. Pure Appl. Math.*, 69(7):1259–1313, 2016.
- [1756] Amir Dembo and Li-Cheng Tsai. Weakly asymmetric non-simple exclusion process and the Kardar-Parisi-Zhang equation. *Comm. Math. Phys.*, 341(1):219–261, 2016.
- [1757] Amir Dembo and Li-Cheng Tsai. Equilibrium fluctuation of the Atlas model. *Ann. Probab.*, 45(6B):4529–4560, 2017.
- [1758] Amir Dembo and Li-Cheng Tsai. Criticality of a randomly-driven front. *Arch. Ration. Mech. Anal.*, 233(2):643–699, 2019.
- [1759] A. Dembo, A. Vershik, and O. Zeitouni. Large deviations for integer partitions. *Markov Process. Related Fields*, 6(2):147–179, 2000.
- [1760] Amir Dembo and Ofer Zeitouni. Large deviations and applications. In *Handbook of stochastic analysis and applications*, volume 163 of *Statist. Textbooks Monogr.*, pages 361–416. Dekker, New York, 2002.
- [1761] Amir Dembo and Ofer Zeitouni. *Large deviations techniques and applications*, volume 38 of *Stochastic Modelling and Applied Probability*. Springer-Verlag, Berlin, 2010. Corrected reprint of the second (1998) edition.
- [1762] Amir Dembo and Ofer Zeitouni. Matrix optimization under random external fields. *J. Stat. Phys.*, 159(6):1306–1326, 2015.
- [1763] A. Dembo and O. Zeitouni. Parameter estimation of partially observed continuous time stochastic processes via the EM algorithm. *Stochastic Process. Appl.*, 23(1):91–113, 1986.
- [1764] Amir Dembo and Ofer Zeitouni. General potential surfaces and neural networks. *Phys. Rev. A* (3), 37(6):2134–2143, 1988.
- [1765] A. Dembo and O. Zeitouni. Corrigendum: “Parameter estimation of partially observed continuous time stochastic processes via the EM algorithm” [*Stochastic Process. Appl.* **23** (1986), no. 1, 91–113; MR0866289 (88h:93068)]. *Stochastic Process. Appl.*, 31(1):167–169, 1989.
- [1766] Amir Dembo and Ofer Zeitouni. On the relation of anticipative Stratonovich and symmetric integrals: a decomposition formula. In *Stochastic partial differential equations and applications, II (Trento, 1988)*, volume 1390 of *Lecture Notes in Math.*, pages 66–76. Springer, Berlin, 1989.
- [1767] Amir Dembo and Ofer Zeitouni. Maximum a posteriori estimation of elliptic Gaussian fields observed via a noisy nonlinear channel. *J. Multivariate Anal.*, 35(2):151–167, 1990.
- [1768] Amir Dembo and Ofer Zeitouni. Onsager-Machlup functionals and maximum a posteriori estimation for a class of non-Gaussian random fields. *J. Multivariate Anal.*, 36(2):243–262, 1991.

- [1769] A. Dembo and O. Zeitouni. Erratum: “Parameter estimation of partially observed continuous time stochastic processes via the EM algorithm” [Stochastic Process. Appl. **23** (1986), no. 1, 91–113; MR0866289 (88h:93068)]. *Stochastic Process. Appl.*, 40(2):359–361, 1992.
- [1770] Amir Dembo and Ofer Zeitouni. *Large deviations techniques and applications*. Jones and Bartlett Publishers, Boston, MA, 1993.
- [1771] Amir Dembo and Ofer Zeitouni. A large deviations analysis of range tracking loops. *IEEE Trans. Automat. Control*, 39(2):360–364, 1994.
- [1772] Amir Dembo and Ofer Zeitouni. Large deviations via parameter dependent change of measure, and an application to the lower tail of Gaussian processes. In *Seminar on Stochastic Analysis, Random Fields and Applications (Ascona, 1993)*, volume 36 of *Progr. Probab.*, pages 111–121. Birkhäuser, Basel, 1995.
- [1773] Amir Dembo and Ofer Zeitouni. Large deviations for subsampling from individual sequences. *Statist. Probab. Lett.*, 27(3):201–205, 1996.
- [1774] Amir Dembo and Ofer Zeitouni. Large deviations for random distribution of mass. In *Random discrete structures (Minneapolis, MN, 1993)*, volume 76 of *IMA Vol. Math. Appl.*, pages 45–53. Springer, New York, 1996.
- [1775] A. Dembo and O. Zeitouni. Refinements of the Gibbs conditioning principle. *Probab. Theory Related Fields*, 104(1):1–14, 1996.
- [1776] Amir Dembo and Ofer Zeitouni. Transportation approach to some concentration inequalities in product spaces. *Electron. Comm. Probab.*, 1:no. 9, 83–90, 1996.
- [1777] A. Dembo and O. Zeitouni. Moderate deviations for iterates of expanding maps. In *Statistics and control of stochastic processes (Moscow, 1995/1996)*, pages 1–11. World Sci. Publ., River Edge, NJ, 1997.
- [1778] Amir Dembo and Ofer Zeitouni. *Large deviations techniques and applications*, volume 38 of *Applications of Mathematics (New York)*. Springer-Verlag, New York, second edition, 1998.
- [1779] Amir Dembo. Information inequalities and concentration of measure. *Ann. Probab.*, 25(2):927–939, 1997.
- [1780] Laurent Denis, Anis Matoussi, and Lucretiu Stoica.  $L^p$  estimates for the uniform norm of solutions of quasilinear SPDE’s. *Probab. Theory Related Fields*, 133(4):437–463, 2005.
- [1781] Laurent Denis and L. Stoica. A general analytical result for non-linear SPDE’s and applications. *Electron. J. Probab.*, 9:no. 23, 674–709, 2004.
- [1782] B. Derrida and H. Spohn. Polymers on disordered trees, spin glasses, and traveling waves. volume 51, pages 817–840. 1988. *New directions in statistical mechanics* (Santa Barbara, CA, 1987).
- [1783] B. Derrida. The random energy model. volume 67, pages 29–35. 1980. *Common trends in particle and condensed matter physics* (Proc. Winter Adv. Study Inst., Les Houches, 1980).
- [1784] B. Derrida. Random-energy model: limit of a family of disordered models. *Phys. Rev. Lett.*, 45(2):79–82, 1980.
- [1785] Bernard Derrida. Random-energy model: an exactly solvable model of disordered systems. *Phys. Rev. B* (3), 24(5):2613–2626, 1981.
- [1786] Yves Derriennic and Bachar Hachem. Sur la convergence en moyenne des suites presque sous-additives. *Math. Z.*, 198(2):221–224, 1988.



- [1787] E. Dettweiler. Stochastic integral equations and diffusions on Banach spaces. In *Probability theory on vector spaces, III (Lublin, 1983)*, volume 1080 of *Lecture Notes in Math.*, pages 9–45. Springer, Berlin, 1984.
- [1788] Egbert Dettweiler. Stochastic integration relative to Brownian motion on a general Banach space. *Douga Mat.*, 15(2):58–97, 1991.
- [1789] Jean-Dominique Deuschel and Ofer Zeitouni. Limiting curves for i.i.d. records. *Ann. Probab.*, 23(2):852–878, 1995.
- [1790] Jean-Dominique Deuschel and Ofer Zeitouni. On increasing subsequences of I.I.D. samples. *Combin. Probab. Comput.*, 8(3):247–263, 1999.
- [1791] Ronald A. DeVore, Björn Jawerth, and Vasil Popov. Compression of wavelet decompositions. *Amer. J. Math.*, 114(4):737–785, 1992.
- [1792] R. A. DeVore, G. C. Kyriazis, and P. Wang. Multiscale characterizations of Besov spaces on bounded domains. *J. Approx. Theory*, 93(2):273–292, 1998.
- [1793] Ronald A. DeVore. Nonlinear approximation. In *Acta numerica, 1998*, volume 7 of *Acta Numer.*, pages 51–150. Cambridge Univ. Press, Cambridge, 1998.
- [1794] A. Deya, M. Gubinelli, and S. Tindel. Non-linear rough heat equations. *Probab. Theory Related Fields*, 153(1-2):97–147, 2012.
- [1795] Aurélien Deya, Massimiliano Gubinelli, Martina Hofmanová, and Samy Tindel. One-dimensional reflected rough differential equations. *Stochastic Process. Appl.*, 129(9):3261–3281, 2019.
- [1796] Aurélien Deya, Massimiliano Gubinelli, Martina Hofmanová, and Samy Tindel. A priori estimates for rough PDEs with application to rough conservation laws. *J. Funct. Anal.*, 276(12):3577–3645, 2019.
- [1797] Aurélien Deya, Maria Jolis, and Lluís Quer-Sardanyons. The Stratonovich heat equation: a continuity result and weak approximations. *Electron. J. Probab.*, 18:no. 3, 34, 2013.
- [1798] A. Deya, A. Neuenkirch, and S. Tindel. A Milstein-type scheme without Lévy area terms for SDEs driven by fractional Brownian motion. *Ann. Inst. Henri Poincaré Probab. Stat.*, 48(2):518–550, 2012.
- [1799] Aurélien Deya, Salim Noredine, and Ivan Nourdin. Fourth moment theorem and  $q$ -Brownian chaos. *Comm. Math. Phys.*, 321(1):113–134, 2013.
- [1800] Aurélien Deya and Ivan Nourdin. Convergence of Wigner integrals to the tetilla law. *ALEA Lat. Am. J. Probab. Math. Stat.*, 9:101–127, 2012.
- [1801] Aurélien Deya and Ivan Nourdin. Invariance principles for homogeneous sums of free random variables. *Bernoulli*, 20(2):586–603, 2014.
- [1802] Aurélien Deya, David Nualart, and Samy Tindel. On  $L^2$  modulus of continuity of Brownian local times and Riesz potentials. *Ann. Probab.*, 43(3):1493–1534, 2015.
- [1803] Aurélien Deya, Fabien Panloup, and Samy Tindel. Rate of convergence to equilibrium of fractional driven stochastic differential equations with rough multiplicative noise. *Ann. Probab.*, 47(1):464–518, 2019.
- [1804] Aurélien Deya and Samy Tindel. Rough Volterra equations. I. The algebraic integration setting. *Stoch. Dyn.*, 9(3):437–477, 2009.
- [1805] Aurélien Deya and Samy Tindel. Rough Volterra equations 2: Convolutional generalized integrals. *Stochastic Process. Appl.*, 121(8):1864–1899, 2011.

- [1806] Aurélien Deya and Samy Tindel. Malliavin calculus for fractional heat equation. In *Malliavin calculus and stochastic analysis*, volume 34 of *Springer Proc. Math. Stat.*, pages 361–384. Springer, New York, 2013.
- [1807] Aurélien Deya. On a modelled rough heat equation. *Probab. Theory Related Fields*, 166(1-2):1–65, 2016.
- [1808] P. Di Francesco, P. Ginsparg, and J. Zinn-Justin. 2D gravity and random matrices. *Phys. Rep.*, 254(1-2):133, 1995.
- [1809] Philippe Di Francesco, Pierre Mathieu, and David Sénéchal. *Conformal field theory*. Graduate Texts in Contemporary Physics. Springer-Verlag, New York, 1997.
- [1810] Eleonora Di Nezza, Giampiero Palatucci, and Enrico Valdinoci. Hitchhiker’s guide to the fractional Sobolev spaces. *Bull. Sci. Math.*, 136(5):521–573, 2012.
- [1811] Giulia Di Nunno and Tusheng Zhang. Approximations of stochastic partial differential equations. *Ann. Appl. Probab.*, 26(3):1443–1466, 2016.
- [1812] Persi Diaconis, Eddy Mayer-Wolf, Ofer Zeitouni, and Martin P. W. Zerner. The Poisson-Dirichlet law is the unique invariant distribution for uniform split-merge transformations. *Ann. Probab.*, 32(1B):915–938, 2004.
- [1813] Persi Diaconis and Brian Skyrms. *Ten great ideas about chance*. Princeton University Press, Princeton, NJ, 2018.
- [1814] Roland Diel. Almost sure asymptotics for the local time of a diffusion in Brownian environment. *Stochastic Process. Appl.*, 121(10):2303–2330, 2011.
- [1815] Momar Dieng and Craig A. Tracy. Application of random matrix theory to multivariate statistics. In *Random matrices, random processes and integrable systems*, CRM Ser. Math. Phys., pages 443–507. Springer, New York, 2011.
- [1816] Kai Diethelm. *The analysis of fractional differential equations*, volume 2004 of *Lecture Notes in Mathematics*. Springer-Verlag, Berlin, 2010. An application-oriented exposition using differential operators of Caputo type.
- [1817] K. Dilcher. Bernoulli and Euler polynomials. In *NIST handbook of mathematical functions*, pages 587–599. U.S. Dept. Commerce, Washington, DC, 2010.
- [1818] Yuriy I. Dimitrienko. *Nonlinear continuum mechanics and large inelastic deformations*, volume 174 of *Solid Mechanics and its Applications*. Springer, Dordrecht, 2011.
- [1819] Evgeni Dimitrov and Konstantin Matetski. Characterization of Brownian Gibbsian line ensembles. *Ann. Probab.*, 49(5):2477–2529, 2021.
- [1820] J. Dimock and S. G. Rajeev. Multi-particle Schrödinger operators with point interactions in the plane. *J. Phys. A*, 37(39):9157–9173, 2004.
- [1821] Stefka Dimova, Michael Kaschiev, Milena Koleva, and Daniela Vasileva. Numerical analysis of radially nonsymmetric blow-up solutions of a nonlinear parabolic problem. *J. Comput. Appl. Math.*, 97(1-2):81–97, 1998.
- [1822] Jian Ding, Rishideep Roy, and Ofer Zeitouni. Convergence of the centered maximum of log-correlated Gaussian fields. *Ann. Probab.*, 45(6A):3886–3928, 2017.
- [1823] Jian Ding, Ofer Zeitouni, and Fuxi Zhang. On the Liouville heat kernel for  $k$ -coarse MBRW. *Electron. J. Probab.*, 23:Paper No. 62, 20, 2018.
- [1824] Jian Ding, Ofer Zeitouni, and Fuxi Zhang. Heat kernel for Liouville Brownian motion and Liouville graph distance. *Comm. Math. Phys.*, 371(2):561–618, 2019.

- [1825] Jian Ding and Ofer Zeitouni. A sharp estimate for cover times on binary trees. *Stochastic Process. Appl.*, 122(5):2117–2133, 2012.
- [1826] Jian Ding and Ofer Zeitouni. Extreme values for two-dimensional discrete Gaussian free field. *Ann. Probab.*, 42(4):1480–1515, 2014.
- [1827] Jacques Distler and Hikaru Kawai. Conformal field theory and 2D quantum gravity. *Nuclear Phys. B*, 321(2):509–527, 1989.
- [1828] Peter Dittrich and Jürgen Gärtner. A central limit theorem for the weakly asymmetric simple exclusion process. *Math. Nachr.*, 151:75–93, 1991.
- [1829] Peter Dittrich. Travelling waves and long-time behaviour of the weakly asymmetric exclusion process. *Probab. Theory Related Fields*, 86(4):443–455, 1990.
- [1830] H. Djellout, A. Guillin, and L. Wu. Transportation cost-information inequalities and applications to random dynamical systems and diffusions. *Ann. Probab.*, 32(3B):2702–2732, 2004.
- [1831] Charles R. Doering, Carl Mueller, and Peter Smereka. Interacting particles, the stochastic Fisher-Kolmogorov-Petrovsky-Piscounov equation, and duality. *Phys. A*, 325(1-2):243–259, 2003. Stochastic systems: from randomness to complexity (Erice, 2002).
- [1832] Gustav Doetsch. *Introduction to the theory and application of the Laplace transformation*. Springer-Verlag, New York-Heidelberg, 1974. Translated from the second German edition by Walter Nader.
- [1833] J. W. Dold, V. A. Galaktionov, A. A. Lacey, and J. L. Vázquez. Rate of approach to a singular steady state in quasilinear reaction-diffusion equations. *Ann. Scuola Norm. Sup. Pisa Cl. Sci. (4)*, 26(4):663–687, 1998.
- [1834] C Domb and G S Joyce. Cluster expansion for a polymer chain. *J. Phys. C: Solid State Phys.*, 5(9):956, may 1972.
- [1835] C. Donati-Martin and D. Nualart. Markov property for elliptic stochastic partial differential equations. *Stochastics Stochastics Rep.*, 46(1-2):107–115, 1994.
- [1836] C. Donati-Martin and É. Pardoux. White noise driven SPDEs with reflection. *Probab. Theory Related Fields*, 95(1):1–24, 1993.
- [1837] Zhao Dong, Jiang-Lun Wu, Rangrang Zhang, and Tusheng Zhang. Large deviation principles for first-order scalar conservation laws with stochastic forcing. *Ann. Appl. Probab.*, 30(1):324–367, 2020.
- [1838] Zhao Dong, Jie Xiong, Jianliang Zhai, and Tusheng Zhang. A moderate deviation principle for 2-D stochastic Navier-Stokes equations driven by multiplicative Lévy noises. *J. Funct. Anal.*, 272(1):227–254, 2017.
- [1839] Zhao Dong, Tiange Xu, and Tusheng Zhang. Invariant measures for stochastic evolution equations of pure jump type. *Stochastic Process. Appl.*, 119(2):410–427, 2009.
- [1840] Zhao Dong, Rangrang Zhang, and Tusheng Zhang. Large deviations for quasilinear parabolic stochastic partial differential equations. *Potential Anal.*, 53(1):183–202, 2020.
- [1841] William F. Donoghue, Jr. *Distributions and Fourier transforms*, volume 32 of *Pure and Applied Mathematics*. Academic Press, New York, 1969.
- [1842] David L. Donoho and Philip B. Stark. Uncertainty principles and signal recovery. *SIAM J. Appl. Math.*, 49(3):906–931, 1989.

- [1843] M. D. Donsker and S. R. S. Varadhan. Asymptotic evaluation of certain Markov process expectations for large time. I. II. *Comm. Pure Appl. Math.*, 28:1–47; *ibid.* 28 (1975), 279–301, 1975.
- [1844] M. D. Donsker and S. R. S. Varadhan. Asymptotic evaluation of certain Wiener integrals for large time. In *Functional integration and its applications (Proc. Internat. Conf., London, 1974)*, pages 15–33, 1975.
- [1845] M. D. Donsker and S. R. S. Varadhan. Asymptotics for the Wiener sausage. *Comm. Pure Appl. Math.*, 28(4):525–565, 1975.
- [1846] M. D. Donsker and S. R. S. Varadhan. Asymptotic evaluation of certain Markov process expectations for large time. III. *Comm. Pure Appl. Math.*, 29(4):389–461, 1976.
- [1847] M. D. Donsker and S. R. S. Varadhan. On laws of the iterated logarithm for local times. *Comm. Pure Appl. Math.*, 30(6):707–753, 1977.
- [1848] M. D. Donsker and S. R. S. Varadhan. Asymptotics for the polaron. *Comm. Pure Appl. Math.*, 36(4):505–528, 1983.
- [1849] J. L. Doob. *Stochastic processes*. John Wiley & Sons, Inc., New York; Chapman & Hall, Ltd., London, 1953.
- [1850] J. L. Doob. *Stochastic processes*. Wiley Classics Library. John Wiley & Sons, Inc., New York, 1990. Reprint of the 1953 original, A Wiley-Interscience Publication.
- [1851] Leif Döring, Achim Klenke, and Leonid Mytnik. Finite system scheme for mutually catalytic branching with infinite branching rate. *Ann. Appl. Probab.*, 27(5):3113–3152, 2017.
- [1852] Leif Döring and Leonid Mytnik. Mutually catalytic branching processes and voter processes with strength of opinion. *ALEA Lat. Am. J. Probab. Math. Stat.*, 9:1–51, 2012.
- [1853] Leif Döring and Leonid Mytnik. Longtime behavior for mutually catalytic branching with negative correlations. In *Advances in superprocesses and nonlinear PDEs*, volume 38 of *Springer Proc. Math. Stat.*, pages 93–111. Springer, New York, 2013.
- [1854] Victor Dotsenko. Bethe ansatz replica derivation of the GOE Tracy-Widom distribution in one-dimensional directed polymers with free endpoints. *J. Stat. Mech. Theory Exp.*, (11):P11014, 18, 2012.
- [1855] Victor Dotsenko. Distribution function of the endpoint fluctuations of one-dimensional directed polymers in a random potential. *J. Stat. Mech. Theory Exp.*, (2):P02012, 20, 2013.
- [1856] Soukaina Douissi, Khalifa Es-Sebaiy, George Kerchev, and Ivan Nourdin. Berry-Esseen bounds of second moment estimators for Gaussian processes observed at high frequency. *Electron. J. Stat.*, 16(1):636–670, 2022.
- [1857] L. N. Dovbysh and V. N. Sudakov. Gram-de Finetti matrices. *Zap. Nauchn. Sem. Leningrad. Otdel. Mat. Inst. Steklov. (LOMI)*, 119:77–86, 238, 244–245, 1982. Problems of the theory of probability distribution, VII.
- [1858] Mirko D’Ovidio and Erkan Nane. Time dependent random fields on spherical non-homogeneous surfaces. *Stochastic Process. Appl.*, 124(6):2098–2131, 2014.
- [1859] Mirko D’Ovidio and Erkan Nane. Fractional Cauchy problems on compact manifolds. *Stoch. Anal. Appl.*, 34(2):232–257, 2016.
- [1860] Bruce K. Driver and Yaozhong Hu. On heat kernel logarithmic Sobolev inequalities. In *Stochastic analysis and applications (Powys, 1995)*, pages 189–200. World Sci. Publ., River Edge, NJ, 1996.

- [1861] Devdatt P. Dubhashi and Alessandro Panconesi. *Concentration of measure for the analysis of randomized algorithms*. Cambridge University Press, Cambridge, 2009.
- [1862] Nguyen Minh Duc, D. Nualart, and M. Sanz. Planar semimartingales obtained by transformations of two-parameter martingales. In *Séminaire de Probabilités, XXIII*, volume 1372 of *Lecture Notes in Math.*, pages 566–582. Springer, Berlin, 1989.
- [1863] Nguyen Minh Duc, D. Nualart, and M. Sanz. Application of Malliavin calculus to a class of stochastic differential equations. *Probab. Theory Related Fields*, 84(4):549–571, 1990.
- [1864] Nguyen Minh Duc, D. Nualart, and M. Sanz. The Doob-Meyer decomposition for anticipating processes. *Stochastics Stochastics Rep.*, 34(3-4):221–239, 1991.
- [1865] Nguyen Minh Duc and David Nualart. Stochastic processes possessing a Skorohod integral representation. *Stochastics Stochastics Rep.*, 30(1):47–60, 1990.
- [1866] R. M. Dudley, S. R. Kulkarni, T. Richardson, and O. Zeitouni. A metric entropy bound is not sufficient for learnability [mr1295317]. In *Selected works of R. M. Dudley*, Sel. Works Probab. Stat., pages 445–447. Springer, New York, 2010.
- [1867] R. M. Dudley, S. R. Kulkarni, T. Richardson, and O. Zeitouni. A metric entropy bound is not sufficient for learnability. *IEEE Trans. Inform. Theory*, 40(3):883–885, 1994.
- [1868] R. M. Dudley. *Real analysis and probability*, volume 74 of *Cambridge Studies in Advanced Mathematics*. Cambridge University Press, Cambridge, 2002. Revised reprint of the 1989 original.
- [1869] R. M. Dudley. The sizes of compact subsets of Hilbert space and continuity of Gaussian processes. *J. Functional Analysis*, 1:290–330, 1967.
- [1870] Richard M. Dudley. *Real analysis and probability*. The Wadsworth & Brooks/Cole Mathematics Series. Wadsworth & Brooks/Cole Advanced Books & Software, Pacific Grove, CA, 1989.
- [1871] Hugo Duminil-Copin, Shirshendu Ganguly, Alan Hammond, and Ioan Manolescu. Bounding the number of self-avoiding walks: Hammersley-Welsh with polygon insertion. *Ann. Probab.*, 48(4):1644–1692, 2020.
- [1872] Hugo Duminil-Copin and Alan Hammond. Self-avoiding walk is sub-ballistic. *Comm. Math. Phys.*, 324(2):401–423, 2013.
- [1873] Hugo Duminil-Copin and Stanislav Smirnov. Conformal invariance of lattice models. In *Probability and statistical physics in two and more dimensions*, volume 15 of *Clay Math. Proc.*, pages 213–276. Amer. Math. Soc., Providence, RI, 2012.
- [1874] Hugo Duminil-Copin and Stanislav Smirnov. The connective constant of the honeycomb lattice equals  $\sqrt{2 + \sqrt{2}}$ . *Ann. of Math. (2)*, 175(3):1653–1665, 2012.
- [1875] Hugo Duminil-Copin. Lectures on the Ising and Potts models on the hypercubic lattice. In *Random graphs, phase transitions, and the Gaussian free field*, volume 304 of *Springer Proc. Math. Stat.*, pages 35–161. Springer, Cham, [2020] ©2020.
- [1876] Tyrone E. Duncan, Yaozhong Hu, and Bozena Pasik-Duncan. Stochastic calculus for fractional Brownian motion. I. Theory. *SIAM J. Control Optim.*, 38(2):582–612, 2000.
- [1877] Tyrone Duncan and David Nualart. Existence of strong solutions and uniqueness in law for stochastic differential equations driven by fractional Brownian motion. *Stoch. Dyn.*, 9(3):423–435, 2009.

- [1878] T. E. Duncan, B. Pasik-Duncan, and B. Maslowski. Fractional Brownian motion and stochastic equations in Hilbert spaces. *Stoch. Dyn.*, 2(2):225–250, 2002.
- [1879] Nelson Dunford and Jacob T. Schwartz. *Linear operators. Part III: Spectral operators*. Pure and Applied Mathematics, Vol. VII. Interscience Publishers [John Wiley & Sons, Inc.], New York-London-Sydney, 1971. With the assistance of William G. Bade and Robert G. Bartle.
- [1880] Nelson Dunford and Jacob T. Schwartz. *Linear operators. Part I*. Wiley Classics Library. John Wiley & Sons, Inc., New York, 1988. General theory, With the assistance of William G. Bade and Robert G. Bartle, Reprint of the 1958 original, A Wiley-Interscience Publication.
- [1881] Nelson Dunford and Jacob T. Schwartz. *Linear operators. Part II*. Wiley Classics Library. John Wiley & Sons, Inc., New York, 1988. Spectral theory. Selfadjoint operators in Hilbert space, With the assistance of William G. Bade and Robert G. Bartle, Reprint of the 1963 original, A Wiley-Interscience Publication.
- [1882] Alexander Dunlap, Yu Gu, Lenya Ryzhik, and Ofer Zeitouni. Fluctuations of the solutions to the KPZ equation in dimensions three and higher. *Probab. Theory Related Fields*, 176(3-4):1217–1258, 2020.
- [1883] Alexander Dunlap, Yu Gu, and Tomasz Komorowski. Fluctuations of the kpz equation on a large torus. *preprint arXiv:2111.03650*, November 2021.
- [1884] Alexander Dunlap, Yu Gu, Lenya Ryzhik, and Ofer Zeitouni. The random heat equation in dimensions three and higher: the homogenization viewpoint. *Arch. Ration. Mech. Anal.*, 242(2):827–873, 2021.
- [1885] Alexander Dunlap, Yu Gu, and Tomasz Komorowski. Fluctuation exponents of the KPZ equation on a large torus. *Comm. Pure Appl. Math.*, 76(11):3104–3149, 2023.
- [1886] Alexander Dunlap, Yu Gu, and Liying Li. Localization length of the 1 + 1 continuum directed random polymer. *Ann. Henri Poincaré*, 24(7):2537–2555, 2023.
- [1887] Alexander Dunlap and Yu Gu. A forward-backward SDE from the 2D nonlinear stochastic heat equation. *Ann. Probab.*, 50(3):1204–1253, 2022.
- [1888] Alexander Dunlap and Yu Gu. A quenched local limit theorem for stochastic flows. *J. Funct. Anal.*, 282(6):Paper No. 109372, 31, 2022.
- [1889] T. M. Dunster. Legendre and related functions. In *NIST handbook of mathematical functions*, pages 351–381. U.S. Dept. Commerce, Washington, DC, 2010.
- [1890] Javier Duoandikoetxea. *Fourier analysis*, volume 29 of *Graduate Studies in Mathematics*. American Mathematical Society, Providence, RI, 2001. Translated and revised from the 1995 Spanish original by David Cruz-Urbe.
- [1891] Bertrand Duplantier and Ilia A. Binder. Harmonic measure and winding of random conformal paths: a Coulomb gas perspective. *Nuclear Phys. B*, 802(3):494–513, 2008.
- [1892] Bertrand Duplantier and Anthony J. Guttmann. New scaling laws for self-avoiding walks: bridges and worms. *J. Stat. Mech. Theory Exp.*, (10):104010, 13, 2019.
- [1893] Bertrand Duplantier and Anthony J. Guttmann. Statistical mechanics of confined polymer networks. *J. Stat. Phys.*, 180(1-6):1061–1094, 2020.
- [1894] Bertrand Duplantier, Xuan Hieu Ho, Thanh Binh Le, and Michel Zinsmeister. Logarithmic coefficients and generalized multifractality of whole-plane SLE. *Comm. Math. Phys.*, 359(3):823–868, 2018.

- [1895] Bertrand Duplantier and Ivan K. Kostov. Geometrical critical phenomena on a random surface of arbitrary genus. *Nuclear Phys. B*, 340(2-3):491–541, 1990.
- [1896] B. Duplantier, G. F. Lawler, J.-F. Le Gall, and T. J. Lyons. The geometry of the Brownian curve. *Bull. Sci. Math.*, 117(1):91–106, 1993.
- [1897] Bertrand Duplantier and Andreas W. W. Ludwig. Multifractals, operator product expansion, and field theory. *Phys. Rev. Lett.*, 66(3):247–251, 1991.
- [1898] Bertrand Duplantier, Chi Nguyen, Nga Nguyen, and Michel Zinsmeister. The coefficient problem and multifractality of whole-plane SLE & LLE. *Ann. Henri Poincaré*, 16(6):1311–1395, 2015.
- [1899] Bertrand Duplantier, Rémi Rhodes, Scott Sheffield, and Vincent Vargas. Critical Gaussian multiplicative chaos: convergence of the derivative martingale. *Ann. Probab.*, 42(5):1769–1808, 2014.
- [1900] Bertrand Duplantier, Rémi Rhodes, Scott Sheffield, and Vincent Vargas. Renormalization of critical Gaussian multiplicative chaos and KPZ relation. *Comm. Math. Phys.*, 330(1):283–330, 2014.
- [1901] Bertrand Duplantier, Rémi Rhodes, Scott Sheffield, and Vincent Vargas. Log-correlated Gaussian fields: an overview. In *Geometry, analysis and probability*, volume 310 of *Progr. Math.*, pages 191–216. Birkhäuser/Springer, Cham, 2017.
- [1902] B. Duplantier and H. Saleur. Exact fractal dimension of 2D Ising clusters. Comment on: “Scaling and fractal dimension of Ising clusters at the  $d = 2$  critical point” [Phys. Rev. Lett. **62** (1989), no. 10, 1067–1070; MR0982648 (89k:82107)] by A. L. Stella and C. Vanderzande. *Phys. Rev. Lett.*, 63(22):2536–2537, 1989. With a reply by Stella and Vanderzande.
- [1903] Bertrand Duplantier and Scott Sheffield. Duality and the Knizhnik-Polyakov-Zamolodchikov relation in Liouville quantum gravity. *Phys. Rev. Lett.*, 102(15):150603, 4, 2009.
- [1904] Bertrand Duplantier and Scott Sheffield. Liouville quantum gravity and KPZ. *Invent. Math.*, 185(2):333–393, 2011.
- [1905] Bertrand Duplantier. Conformally invariant fractals and potential theory. *Phys. Rev. Lett.*, 84(7):1363–1367, 2000.
- [1906] Bertrand Duplantier. Conformal spiral multifractals. *Ann. Henri Poincaré*, 4(suppl. 1):S401–S426, 2003.
- [1907] Bertrand Duplantier. Higher conformal multifractality. volume 110, pages 691–738. 2003. Special issue in honor of Michael E. Fisher’s 70th birthday (Piscataway, NJ, 2001).
- [1908] Bertrand Duplantier. Introduction à l’effet Casimir. In *Poincaré Seminar 2002*, volume 30 of *Prog. Math. Phys.*, pages 53–69. Birkhäuser, Basel, 2003.
- [1909] Bertrand Duplantier. Conformal fractal geometry & boundary quantum gravity. In *Fractal geometry and applications: a jubilee of Benoît Mandelbrot, Part 2*, volume 72 of *Proc. Sympos. Pure Math.*, pages 365–482. Amer. Math. Soc., Providence, RI, 2004.
- [1910] Bertrand Duplantier. Brownian motion, “diverse and undulating”. In *Einstein, 1905–2005*, volume 47 of *Prog. Math. Phys.*, pages 201–293. Birkhäuser, Basel, 2006. Translated from the French by Emily Parks.
- [1911] Bertrand Duplantier. Conformal random geometry. In *Mathematical statistical physics*, pages 101–217. Elsevier B. V., Amsterdam, 2006.

- [1912] Bertrand Duplantier. Liouville quantum gravity & the KPZ relation: a rigorous perspective. In *XVIth International Congress on Mathematical Physics*, pages 56–85. World Sci. Publ., Hackensack, NJ, 2010.
- [1913] B. Duplantier. A rigorous perspective on Liouville quantum gravity and the KPZ relation. In *Exact methods in low-dimensional statistical physics and quantum computing*, pages 529–561. Oxford Univ. Press, Oxford, 2010.
- [1914] Bertrand Duplantier.  $B^2M$  &  $MB$ : Benoît B. Mandelbrot et le mouvement brownien. *Gaz. Math.*, (136):61–113, 2013.
- [1915] Bertrand Duplantier. Liouville quantum gravity, KPZ and Schramm-Loewner evolution. In *Proceedings of the International Congress of Mathematicians—Seoul 2014. Vol. III*, pages 1035–1061. Kyung Moon Sa, Seoul, 2014.
- [1916] Bertrand Duplantier. Coefficient d’enlacement de variétés en positions aléatoires dans  $\mathbf{R}^n$ . *C. R. Acad. Sci. Paris Sér. I Math.*, 293(15):693–696, 1981.
- [1917] B. Duplantier. Linking numbers, contacts, and mutual inductances of a random set of closed curves. *Comm. Math. Phys.*, 82(1):41–68, 1981/82.
- [1918] Bertrand Duplantier. Fractal critical phenomena in two dimensions and conformal invariance. In *Fractals’ physical origin and properties (Erice, 1988)*, volume 45 of *Ettore Majorana Internat. Sci. Ser.: Phys. Sci.*, pages 83–121. Plenum, New York, 1989.
- [1919] Bertrand Duplantier. Fractals in two dimensions and conformal invariance. volume 38, pages 71–87. 1989. *Fractals in physics* (Vence, 1989).
- [1920] Bertrand Duplantier. Statistical mechanics of self-avoiding crumpled manifolds. In *Statistical mechanics of membranes and surfaces (Jerusalem, 1987/1988)*, volume 5 of *Jerusalem Winter School Theoret. Phys.*, pages 225–261. World Sci. Publ., Teaneck, NJ, 1989.
- [1921] Bertrand Duplantier. Two-dimensional fractal geometry, critical phenomena and conformal invariance. volume 184, pages 229–257. 1989. *Common trends in statistical physics and field theory* (Cargèse, 1988).
- [1922] B. Duplantier. Conformal invariance self-avoiding walks in the plane or on a random surface. In *Champs, cordes et phénomènes critiques (Les Houches, 1988)*, pages 393–408. North-Holland, Amsterdam, 1990.
- [1923] Bertrand Duplantier. Exact curvature energies of charged membranes of arbitrary shapes. *Phys. A*, 168(1):179–197, 1990.
- [1924] Bertrand Duplantier. Renormalization and conformal invariance for polymers. In *Fundamental problems in statistical mechanics VII (Altenberg, 1989)*, pages 171–223. North-Holland, Amsterdam, 1990.
- [1925] Bertrand Duplantier. Two-dimensional polymers and conformal invariance. volume 163, pages 158–182. 1990. *Statistical physics* (Rio de Janeiro, 1989).
- [1926] Bertrand Duplantier. Can one “hear” the thermodynamics of a (rough) colloid? *Phys. Rev. Lett.*, 66(12):1555–1558, 1991.
- [1927] Bertrand Duplantier. Statistical mechanics on a 2D-random surface. volume 65, pages 291–296. 1992. *Physics in two dimensions* (Neuchâtel, 1991).
- [1928] Bertrand Duplantier. Hyperscaling for polymer rings. *Nuclear Phys. B*, 430(3):489–533, 1994.
- [1929] Bertrand Duplantier. Random walks and quantum gravity in two dimensions. *Phys. Rev. Lett.*, 81(25):5489–5492, 1998.



- [1930] Bertrand Duplantier. Conformal multifractality of random walks, polymers, and percolation in two dimensions. In *Fractals: theory and applications in engineering*, pages 185–206. Springer, London, 1999.
- [1931] Bertrand Duplantier. Harmonic measure exponents for two-dimensional percolation. *Phys. Rev. Lett.*, 82(20):3940–3943, 1999.
- [1932] Bertrand Duplantier. Random walks, polymers, percolation, and quantum gravity in two dimensions. volume 263, pages 452–465. 1999. STATPHYS 20 (Paris, 1998).
- [1933] Paul Dupuis and Richard S. Ellis. *A weak convergence approach to the theory of large deviations*. Wiley Series in Probability and Statistics: Probability and Statistics. John Wiley & Sons, Inc., New York, 1997. A Wiley-Interscience Publication.
- [1934] Paul Dupuis and Ofer Zeitouni. A nonstandard form of the rate function for the occupation measure of a Markov chain. *Stochastic Process. Appl.*, 61(2):249–261, 1996.
- [1935] B. Durhuus. Multi-spin systems on a randomly triangulated surface. *Nuclear Phys. B*, 426(1):203–222, 1994.
- [1936] Rick Durrett and Wai-Tong Fan. Genealogies in expanding populations. *Ann. Appl. Probab.*, 26(6):3456–3490, 2016.
- [1937] Richard Durrett and Thomas M. Liggett. Fixed points of the smoothing transformation. *Z. Wahrsch. Verw. Gebiete*, 64(3):275–301, 1983.
- [1938] Richard Durrett, Leonid Mytnik, and Edwin Perkins. Competing super-Brownian motions as limits of interacting particle systems. *Electron. J. Probab.*, 10:no. 35, 1147–1220, 2005.
- [1939] Rick Durrett. *Probability: theory and examples*, volume 31 of *Cambridge Series in Statistical and Probabilistic Mathematics*. Cambridge University Press, Cambridge, fourth edition, 2010.
- [1940] Rick Durrett. *Probability—theory and examples*, volume 49 of *Cambridge Series in Statistical and Probabilistic Mathematics*. Cambridge University Press, Cambridge, 2019. Fifth edition of [MR1068527].
- [1941] Richard Durrett. *Lecture notes on particle systems and percolation*. The Wadsworth & Brooks/Cole Statistics/Probability Series. Wadsworth & Brooks/Cole Advanced Books & Software, Pacific Grove, CA, 1988.
- [1942] Richard Durrett. *Probability: theory and examples*. Duxbury Press, Belmont, CA, second edition, 1996.
- [1943] H. Dym and H. P. McKean. *Gaussian processes, function theory, and the inverse spectral problem*. Probability and Mathematical Statistics, Vol. 31. Academic Press [Harcourt Brace Jovanovich, Publishers], New York-London, 1976.
- [1944] E. B. Dynkin. *Markovskie protsessy*. Gosudarstv. Izdat. Fiz.-Mat. Lit., Moscow, 1963.
- [1945] E. B. Dynkin. Markov processes as a tool in field theory. *J. Funct. Anal.*, 50(2):167–187, 1983.
- [1946] E. B. Dynkin. Gaussian and non-Gaussian random fields associated with Markov processes. *J. Funct. Anal.*, 55(3):344–376, 1984.
- [1947] E. B. Dynkin. Polynomials of the occupation field and related random fields. *J. Funct. Anal.*, 58(1):20–52, 1984.
- [1948] Freeman Dyson. Foreword. In *The Oxford handbook of random matrix theory*, pages vii–ix. Oxford Univ. Press, Oxford, 2011.

- [1949] Weinan E and Bjorn Engquist. Blowup of solutions of the unsteady Prandtl's equation. *Comm. Pure Appl. Math.*, 50(12):1287–1293, 1997.
- [1950] Jean-Pierre Eckmann and Martin Hairer. Invariant measures for stochastic partial differential equations in unbounded domains. *Nonlinearity*, 14(1):133–151, 2001.
- [1951] J.-P. Eckmann and C. E. Wayne. The largest Liapunov exponent for random matrices and directed polymers in a random environment. *Comm. Math. Phys.*, 121(1):147–175, 1989.
- [1952] G. A. Edgar and Louis Sucheston. *Stopping times and directed processes*, volume 47 of *Encyclopedia of Mathematics and its Applications*. Cambridge University Press, Cambridge, 1992.
- [1953] D. E. Edmunds and H. Triebel. Entropy numbers and approximation numbers in function spaces. *Proc. London Math. Soc. (3)*, 58(1):137–152, 1989.
- [1954] D. E. Edmunds and H. Triebel. *Function spaces, entropy numbers, differential operators*, volume 120 of *Cambridge Tracts in Mathematics*. Cambridge University Press, Cambridge, 1996.
- [1955] Samuel Frederick Edwards and D. R. Wilkinson. The surface statistics of a granular aggregate. *Proc. R. Soc. London A*, 381(1780):17–31, 1982.
- [1956] S. F. Edwards. The statistical mechanics of polymers with excluded volume. *Proc. Phys. Soc.*, 85:613–624, 1965.
- [1957] Samuil D. Eidelman, Stepan D. Ivasyshen, and Anatoly N. Kochubei. *Analytic methods in the theory of differential and pseudo-differential equations of parabolic type*, volume 152 of *Operator Theory: Advances and Applications*. Birkhäuser Verlag, Basel, 2004.
- [1958] Samuil D. Eidelman and Anatoly N. Kochubei. Cauchy problem for fractional diffusion equations. *J. Differential Equations*, 199(2):211–255, 2004.
- [1959] Albert Einstein. *Investigations on the theory of the Brownian movement*. Dover Publications, Inc., New York, 1956. Edited with notes by R. Fürth, Translated by A. D. Cowper.
- [1960] Nathalie Eisenbaum, Mohammad Foondun, and Davar Khoshnevisan. Dynkin's isomorphism theorem and the stochastic heat equation. *Potential Anal.*, 34(3):243–260, 2011.
- [1961] Nathalie Eisenbaum and Davar Khoshnevisan. On the most visited sites of symmetric Markov processes. *Stochastic Process. Appl.*, 101(2):241–256, 2002.
- [1962] Michael Ekhaus and Timo Seppäläinen. Stochastic dynamics macroscopically governed by the porous medium equation for isothermal flow. *Ann. Acad. Sci. Fenn. Math.*, 21(2):309–352, 1996.
- [1963] Nouredine El Karoui. Multivariate statistics. In *The Oxford handbook of random matrix theory*, pages 578–596. Oxford Univ. Press, Oxford, 2011.
- [1964] Sheer El-Showk, Miguel F. Paulos, David Poland, Slava Rychkov, David Simmons-Duffin, and Alessandro Vichi. Solving the 3d Ising model with the conformal bootstrap II. *c*-minimization and precise critical exponents. *J. Stat. Phys.*, 157(4-5):869–914, 2014.
- [1965] Ronen Eldan, Frederic Koehler, and Ofer Zeitouni. A spectral condition for spectral gap: fast mixing in high-temperature Ising models. *Probab. Theory Related Fields*, 182(3-4):1035–1051, 2022.
- [1966] Charles M. Elliott and Zheng Songmu. On the Cahn-Hilliard equation. *Arch. Rational Mech. Anal.*, 96(4):339–357, 1986.

- [1967] *Probability and statistical physics in two and more dimensions*, volume 15 of *Clay Mathematics Proceedings*. American Mathematical Society, Providence, RI; Clay Mathematics Institute, Cambridge, MA, 2012.
- [1968] M. Émile Borel. Les probabilités dénombrables et leurs applications arithmétiques. *Rendiconti del Circolo Matematico di Palermo (1884-1940)*, 27(1):247–271, Dec 1909.
- [1969] Elnur Emrah, Christopher Janjigian, and Timo Seppäläinen. Flats, spikes and crevices: the evolving shape of the inhomogeneous corner growth model. *Electron. J. Probab.*, 26:Paper No. 33, 45, 2021.
- [1970] Klaus-Jochen Engel and Rainer Nagel. *One-parameter semigroups for linear evolution equations*, volume 194 of *Graduate Texts in Mathematics*. Springer-Verlag, New York, 2000. With contributions by S. Brendle, M. Campiti, T. Hahn, G. Metafune, G. Nickel, D. Pallara, C. Perazzoli, A. Rhandi, S. Romanelli and R. Schnaubelt.
- [1971] H. J. Engelbert and W. Schmidt. On the behaviour of certain functionals of the Wiener process and applications to stochastic differential equations. In *Stochastic differential systems (Visegrád, 1980)*, volume 36 of *Lecture Notes in Control and Information Sci.*, pages 47–55. Springer, Berlin-New York, 1981.
- [1972] H. J. Engelbert and W. Schmidt. On exponential local martingales connected with diffusion processes. *Math. Nachr.*, 119:97–115, 1984.
- [1973] H. J. Engelbert and W. Schmidt. On solutions of one-dimensional stochastic differential equations without drift. *Z. Wahrsch. Verw. Gebiete*, 68(3):287–314, 1985.
- [1974] János Engländer. Quenched law of large numbers for branching Brownian motion in a random medium. *Ann. Inst. Henri Poincaré Probab. Stat.*, 44(3):490–518, 2008.
- [1975] A. Erdélyi, W. Magnus, F. Oberhettinger, and F. G. Tricomi. *Tables of integral transforms. Vol. I*. McGraw-Hill Book Company, Inc., New York-Toronto-London, 1954. Based, in part, on notes left by Harry Bateman.
- [1976] A. Erdélyi, W. Magnus, F. Oberhettinger, and F. G. Tricomi. *Tables of integral transforms. Vol. II*. McGraw-Hill Book Company, Inc., New York-Toronto-London, 1954. Based, in part, on notes left by Harry Bateman.
- [1977] Arthur Erdélyi, Wilhelm Magnus, Fritz Oberhettinger, and Francesco G. Tricomi. *Higher transcendental functions. Vol. I*. Robert E. Krieger Publishing Co., Inc., Melbourne, Fla., 1981. Based on notes left by Harry Bateman, With a preface by Mina Rees, With a foreword by E. C. Watson, Reprint of the 1953 original.
- [1978] Arthur Erdélyi, Wilhelm Magnus, Fritz Oberhettinger, and Francesco G. Tricomi. *Higher transcendental functions. Vol. II*. Robert E. Krieger Publishing Co., Inc., Melbourne, Fla., 1981. Based on notes left by Harry Bateman, Reprint of the 1953 original.
- [1979] Arthur Erdélyi, Wilhelm Magnus, Fritz Oberhettinger, and Francesco G. Tricomi. *Higher transcendental functions. Vol. III*. Robert E. Krieger Publishing Co., Inc., Melbourne, Fla., 1981. Based on notes left by Harry Bateman, Reprint of the 1955 original.
- [1980] A. Erdélyi. *Asymptotic expansions*. Dover Publications, Inc., New York, 1956.
- [1981] Dirk Erhard and Martin Hairer. Discretisation of regularity structures. *Ann. Inst. Henri Poincaré Probab. Stat.*, 55(4):2209–2248, 2019.
- [1982] Mohamed Erraoui, Youssef Ouknine, and David Nualart. Hyperbolic stochastic partial differential equations with additive fractional Brownian sheet. *Stoch. Dyn.*, 3(2):121–139, 2003.

- [1983] Khalifa Es-Sebaiy and Ivan Nourdin. Parameter estimation for  $\alpha$ -fractional bridges. In *Malliavin calculus and stochastic analysis*, volume 34 of *Springer Proc. Math. Stat.*, pages 385–412. Springer, New York, 2013.
- [1984] Khalifa Es-Sebaiy, David Nualart, Youssef Ouknine, and Ciprian A. Tudor. Occupation densities for certain processes related to fractional Brownian motion. *Stochastics*, 82(1-3):133–147, 2010.
- [1985] M. Escobedo and M. A. Herrero. Boundedness and blow up for a semilinear reaction-diffusion system. *J. Differential Equations*, 89(1):176–202, 1991.
- [1986] Miguel Escobedo and Howard A. Levine. Critical blowup and global existence numbers for a weakly coupled system of reaction-diffusion equations. *Arch. Rational Mech. Anal.*, 129(1):47–100, 1995.
- [1987] R. Esposito, R. Marra, and H.-T. Yau. Diffusive limit of asymmetric simple exclusion. volume 6, pages 1233–1267. 1994. Special issue dedicated to Elliott H. Lieb.
- [1988] El Hassan Essaky and David Nualart. On the  $\frac{1}{H}$ -variation of the divergence integral with respect to fractional Brownian motion with Hurst parameter  $H < \frac{1}{2}$ . *Stochastic Process. Appl.*, 125(11):4117–4141, 2015.
- [1989] Alison M. Etheridge and Thomas G. Kurtz. Genealogical constructions of population models. *Ann. Probab.*, 47(4):1827–1910, 2019.
- [1990] Alison M. Etheridge, Amandine Véber, and Feng Yu. Rescaling limits of the spatial lambda-Fleming-Viot process with selection. *Electron. J. Probab.*, 25:Paper No. 120, 89, 2020.
- [1991] Alison M. Etheridge. *An introduction to superprocesses*, volume 20 of *University Lecture Series*. American Mathematical Society, Providence, RI, 2000.
- [1992] Alison Etheridge. *Some mathematical models from population genetics*, volume 2012 of *Lecture Notes in Mathematics*. Springer, Heidelberg, 2011. Lectures from the 39th Probability Summer School held in Saint-Flour, 2009, École d’Été de Probabilités de Saint-Flour. [Saint-Flour Probability Summer School].
- [1993] S. N. Ethier and Davar Khoshnevisan. Bounds on gambler’s ruin probabilities in terms of moments. *Methodol. Comput. Appl. Probab.*, 4(1):55–68, 2002.
- [1994] Stewart N. Ethier and Thomas G. Kurtz. *Markov processes*. Wiley Series in Probability and Mathematical Statistics: Probability and Mathematical Statistics. John Wiley & Sons, Inc., New York, 1986. Characterization and convergence.
- [1995] Lawrence C. Evans and Ronald F. Gariepy. *Measure theory and fine properties of functions*. Textbooks in Mathematics. CRC Press, Boca Raton, FL, revised edition, 2015.
- [1996] Lawrence C. Evans. *Partial differential equations*, volume 19 of *Graduate Studies in Mathematics*. American Mathematical Society, Providence, RI, second edition, 2010.
- [1997] B. Eynard and G. Bonnet. The Potts- $q$  random matrix model: loop equations, critical exponents, and rational case. *Phys. Lett. B*, 463(2-4):273–279, 1999.
- [1998] E. B. Fabes, M. Jodeit, Jr., and N. M. Rivi re. Potential techniques for boundary value problems on  $C^1$ -domains. *Acta Math.*, 141(3-4):165–186, 1978.
- [1999] Eugene Fabes, Osvaldo Mendez, and Marius Mitrea. Boundary layers on Sobolev-Besov spaces and Poisson’s equation for the Laplacian in Lipschitz domains. *J. Funct. Anal.*, 159(2):323–368, 1998.

- [2000] K. J. Falconer. *The geometry of fractal sets*, volume 85 of *Cambridge Tracts in Mathematics*. Cambridge University Press, Cambridge, 1986.
- [2001] F. Family and D. P. (Eds.) Landau. *Kinetics of aggregation and gelation*. North-Holland, 1984.
- [2002] Fereydoon Family. Scaling of rough surfaces: effects of surface diffusion. *Journal of Physics A: Mathematical and General*, 19(8):L441, June 1986.
- [2003] Ai Hua Fan. Sur les chaos de Lévy stables d'indice  $0 < \alpha < 1$ . *Ann. Sci. Math. Québec*, 21(1):53–66, 1997.
- [2004] Shizan Fang, Peter Imkeller, and Tusheng Zhang. Global flows for stochastic differential equations without global Lipschitz conditions. *Ann. Probab.*, 35(1):180–205, 2007.
- [2005] Ming Fang and Ofer Zeitouni. Consistent minimal displacement of branching random walks. *Electron. Commun. Probab.*, 15:106–118, 2010.
- [2006] Ming Fang and Ofer Zeitouni. Branching random walks in time inhomogeneous environments. *Electron. J. Probab.*, 17:no. 67, 18, 2012.
- [2007] Ming Fang and Ofer Zeitouni. Slowdown for time inhomogeneous branching Brownian motion. *J. Stat. Phys.*, 149(1):1–9, 2012.
- [2008] Shizan Fang and Tusheng Zhang. A study of a class of stochastic differential equations with non-Lipschitzian coefficients. *Probab. Theory Related Fields*, 132(3):356–390, 2005.
- [2009] Shizan Fang and Tusheng Zhang. Isotropic stochastic flow of homeomorphisms on  $S^d$  for the critical Sobolev exponent. *J. Math. Pures Appl. (9)*, 85(4):580–597, 2006.
- [2010] Mao-Fa Fang, Peng Zhou, and S. Swain. Entropy squeezing for a two-level atom. *J. Modern Opt.*, 47(6):1043–1053, 2000.
- [2011] M. Farré and D. Nualart. Nonlinear stochastic integral equations in the plane. *Stochastic Process. Appl.*, 46(2):219–239, 1993.
- [2012] A. Fasano, M. Primicerio, S. D. Howison, and J. R. Ockendon. Some remarks on the regularization of supercooled one-phase Stefan problems in one dimension. *Quart. Appl. Math.*, 48(1):153–168, 1990.
- [2013] Herbert Federer. *Geometric measure theory*. Die Grundlehren der mathematischen Wissenschaften, Band 153. Springer-Verlag New York, Inc., New York, 1969.
- [2014] C. Fefferman, N. M. Rivière, and Y. Sagher. Interpolation between  $H^p$  spaces: the real method. *Trans. Amer. Math. Soc.*, 191:75–81, 1974.
- [2015] Robert Fefferman and Fernando Soria. The space Weak  $H^1$ . *Studia Math.*, 85(1):1–16 (1987), 1986.
- [2016] Ohad Noy Feldheim, Elliot Paquette, and Ofer Zeitouni. Regularization of non-normal matrices by Gaussian noise. *Int. Math. Res. Not. IMRN*, (18):8724–8751, 2015.
- [2017] J. Feldman, J. Magnen, V. Rivasseau, and R. Sénéor. Construction and Borel summability of infrared  $\Phi_4^4$  by a phase space expansion. *Comm. Math. Phys.*, 109(3):437–480, 1987.
- [2018] Joel S. Feldman and Konrad Osterwalder. The Wightman axioms and the mass gap for weakly coupled  $(\Phi^4)_3$  quantum field theories. *Ann. Physics*, 97(1):80–135, 1976.
- [2019] William Feller. On a generalization of Marcel Riesz' potentials and the semi-groups generated by them. *Comm. Sémin. Math. Univ. Lund [Medd. Lunds Univ. Mat. Sem.]*, 1952(Tome Supplémentaire):72–81, 1952.

- [2020] William Feller. *An introduction to probability theory and its applications. Vol. II.* John Wiley & Sons, Inc., New York-London-Sydney, 1966.
- [2021] William Feller. *An introduction to probability theory and its applications. Vol. I.* John Wiley & Sons, Inc., New York-London-Sydney, third edition, 1968.
- [2022] Shui Feng, Ilie Grigorescu, and Jeremy Quastel. Diffusive scaling limits of mutually interacting particle systems. *SIAM J. Math. Anal.*, 35(6):1512–1533, 2004.
- [2023] Shui Feng, Ian Iscoe, and Timo Seppäläinen. A microscopic mechanism for the porous medium equation. *Stochastic Process. Appl.*, 66(2):147–182, 1997.
- [2024] Jin Feng and David Nualart. Stochastic scalar conservation laws. *J. Funct. Anal.*, 255(2):313–373, 2008.
- [2025] Xinwei Feng, Qi-Man Shao, and Ofer Zeitouni. Self-normalized moderate deviations for random walk in random scenery. *J. Theoret. Probab.*, 34(1):103–124, 2021.
- [2026] Qi Feng and Samy Tindel. On a priori estimates for rough PDEs. In *Stochastic analysis and related topics*, volume 72 of *Progr. Probab.*, pages 117–138. Birkhäuser/Springer, Cham, 2017.
- [2027] Shui Feng and Jie Xiong. Large deviations and quasi-potential of a Fleming-Viot process. *Electron. Comm. Probab.*, 7:13–25, 2002.
- [2028] David Fernández-Baca, Timo Seppäläinen, and Giora Slutzki. Bounds for parametric sequence comparison. *Discrete Appl. Math.*, 118(3):181–198, 2002.
- [2029] David Fernández-Baca, Timo Seppäläinen, and Giora Slutzki. Parametric multiple sequence alignment and phylogeny construction. *J. Discrete Algorithms*, 2(2):271–287, 2004.
- [2030] Julian Fernández Bonder and Pablo Groisman. Time-space white noise eliminates global solutions in reaction-diffusion equations. *Phys. D*, 238(2):209–215, 2009.
- [2031] Julian Fernández Bonder and Pablo Groisman. Time-space white noise eliminates global solutions in reaction-diffusion equations. *Phys. D: Nonlinear Phenom.*, 238(2):209–215, 2009.
- [2032] Roberto Fernández, Jürg Fröhlich, and Alan D. Sokal. *Random walks, critical phenomena, and triviality in quantum field theory.* Texts and Monographs in Physics. Springer-Verlag, Berlin, 1992.
- [2033] Xavier Fernique. Régularité de processus gaussiens. *Invent. Math.*, 12:304–320, 1971.
- [2034] X. Fernique. Régularité des trajectoires des fonctions aléatoires gaussiennes. In *École d’Été de Probabilités de Saint-Flour, IV-1974*, pages 1–96. Lecture Notes in Math., Vol. 480. 1975.
- [2035] Marco Ferrante, Arturo Kohatsu-Higa, and Marta Sanz-Solé. Strong approximations for stochastic differential equations with boundary conditions. *Stochastic Process. Appl.*, 61(2):323–337, 1996.
- [2036] Marco Ferrante and David Nualart. On the Markov property of a stochastic difference equation. *Stochastic Process. Appl.*, 52(2):239–250, 1994.
- [2037] M. Ferrante and D. Nualart. Markov field property for stochastic differential equations with boundary conditions. *Stochastics Stochastics Rep.*, 55(1-2):55–69, 1995.
- [2038] Marco Ferrante and David Nualart. An example of a non-Markovian stochastic two-point boundary value problem. *Bernoulli*, 3(4):371–386, 1997.
- [2039] Marco Ferrante, Carles Rovira, and Marta Sanz-Solé. Stochastic delay equations with hereditary drift: estimates of the density. *J. Funct. Anal.*, 177(1):138–177, 2000.

- [2040] Marco Ferrante and Marta Sanz-Solé. SPDEs with coloured noise: analytic and stochastic approaches. *ESAIM Probab. Stat.*, 10:380–405, 2006.
- [2041] P. L. Ferrari and H. Spohn. Random growth models. In *The Oxford handbook of random matrix theory*, pages 782–801. Oxford Univ. Press, Oxford, 2011.
- [2042] Raúl Ferreira, Pablo Groisman, and Julio D. Rossi. Adaptive numerical schemes for a parabolic problem with blow-up. *IMA J. Numer. Anal.*, 23(3):439–463, 2003.
- [2043] Raúl Ferreira, Pablo Groisman, and Julio D. Rossi. Numerical blow-up for the porous medium equation with a source. *Numer. Methods Partial Differential Equations*, 20(4):552–575, 2004.
- [2044] Denis Feyel and Ali Süleyman Üstünel. Measure transport on Wiener space and the Girsanov theorem. *C. R. Math. Acad. Sci. Paris*, 334(11):1025–1028, 2002.
- [2045] D. Feyel and A. S. Üstünel. Monge-Kantorovitch measure transportation and Monge-Ampère equation on Wiener space. *Probab. Theory Related Fields*, 128(3):347–385, 2004.
- [2046] Richard P. Feynman. *Statistical mechanics*. Advanced Book Classics. Perseus Books, Advanced Book Program, Reading, MA, 1998. A set of lectures, Reprint of the 1972 original.
- [2047] José E. Figueroa-López, Yankeng Luo, and Cheng Ouyang. Small-time expansions for local jump-diffusion models with infinite jump activity. *Bernoulli*, 20(3):1165–1209, 2014.
- [2048] Marek Fila, Bernhard Kawohl, and Howard A. Levine. Quenching for quasilinear equations. *Comm. Partial Differential Equations*, 17(3-4):593–614, 1992.
- [2049] Marek Fila, Howard A. Levine, and Juan L. Vázquez. Stabilization of solutions of weakly singular quenching problems. *Proc. Amer. Math. Soc.*, 119(2):555–559, 1993.
- [2050] Marek Fila and Howard A. Levine. Quenching on the boundary. *Nonlinear Anal.*, 21(10):795–802, 1993.
- [2051] Damir Filipović and Jerzy Zabczyk. Markovian term structure models in discrete time. *Ann. Appl. Probab.*, 12(2):710–729, 2002.
- [2052] Stathis Filippas and Jong-Shenq Guo. Quenching profiles for one-dimensional semilinear heat equations. *Quart. Appl. Math.*, 51(4):713–729, 1993.
- [2053] Stathis Filippas and Robert V. Kohn. Refined asymptotics for the blowup of  $u_t - \Delta u = u^p$ . *Comm. Pure Appl. Math.*, 45(7):821–869, 1992.
- [2054] Franco Flandoli and Dariusz Gatarek. Martingale and stationary solutions for stochastic Navier-Stokes equations. *Probab. Theory Related Fields*, 102(3):367–391, 1995.
- [2055] F. Flandoli, M. Gubinelli, M. Hairer, and M. Romito. Rigorous remarks about scaling laws in turbulent fluids. *Comm. Math. Phys.*, 278(1):1–29, 2008.
- [2056] Franco Flandoli, Massimiliano Gubinelli, and Martin Hairer. Introduction. In *Singular random dynamics*, volume 2253 of *Lecture Notes in Math.*, pages 1–10. Springer, Cham, [2019] ©2019.
- [2057] Franco Flandoli, Francesco Russo, and Jochen Wolf. Some SDEs with distributional drift. I. General calculus. *Osaka J. Math.*, 40(2):493–542, 2003.
- [2058] Franco Flandoli, Francesco Russo, and Jochen Wolf. Some SDEs with distributional drift. II. Lyons-Zheng structure, Itô’s formula and semimartingale characterization. *Random Oper. Stochastic Equations*, 12(2):145–184, 2004.

- [2059] Franco Flandoli. An introduction to 3D stochastic fluid dynamics. In *SPDE in hydrodynamic: recent progress and prospects*, volume 1942 of *Lecture Notes in Math.*, pages 51–150. Springer, Berlin, 2008.
- [2060] Franco Flandoli. *Regularity theory and stochastic flows for parabolic SPDEs*, volume 9 of *Stochastics Monographs*. Gordon and Breach Science Publishers, Yverdon, 1995.
- [2061] Klaus Fleischmann, Carl Mueller, and Pascal Vogt. The large scale behavior of super-Brownian motion in three dimensions with a single point source. *Commun. Stoch. Anal.*, 1(1):19–28, 2007.
- [2062] Klaus Fleischmann and Carl Mueller. Finite time extinction of catalytic branching processes. In *Stochastic models (Ottawa, ON, 1998)*, volume 26 of *CMS Conf. Proc.*, pages 125–139. Amer. Math. Soc., Providence, RI, 2000.
- [2063] Klaus Fleischmann and Carl Mueller. Super-Brownian motion with extra birth at one point. *SIAM J. Math. Anal.*, 36(3):740–772, 2004/05.
- [2064] Klaus Fleischmann and Carl Mueller. A super-Brownian motion with a locally infinite catalytic mass. *Probab. Theory Related Fields*, 107(3):325–357, 1997.
- [2065] Klaus Fleischmann, Leonid Mytnik, and Vitali Wachtel. Optimal local Hölder index for density states of superprocesses with  $(1+\beta)$ -branching mechanism. *Ann. Probab.*, 38(3):1180–1220, 2010.
- [2066] Klaus Fleischmann, Leonid Mytnik, and Vitali Wachtel. Hölder index at a given point for density states of *super- $\alpha$ -stable* motion of index  $1+\beta$ . *J. Theoret. Probab.*, 24(1):66–92, 2011.
- [2067] Klaus Fleischmann, Leonid Mytnik, and Vitali Wachtel. Properties of states of super- $\alpha$ -stable motion with branching of index  $1+\beta$ . In *Probability in complex physical systems*, volume 11 of *Springer Proc. Math.*, pages 409–421. Springer, Heidelberg, 2012.
- [2068] Klaus Fleischmann and Leonid Mytnik. Competing species superprocesses with infinite variance. *Electron. J. Probab.*, 8:no. 8, 59, 2003.
- [2069] Ionuț Florescu and Frederi Viens. Sharp estimation of the almost-sure Lyapunov exponent for the Anderson model in continuous space. *Probab. Theory Related Fields*, 135(4):603–644, 2006.
- [2070] Carme Florit and David Nualart. A local criterion for smoothness of densities and application to the supremum of the Brownian sheet. *Statist. Probab. Lett.*, 22(1):25–31, 1995.
- [2071] Carme Florit and David Nualart. Diffusion approximation for hyperbolic stochastic differential equations. *Stochastic Process. Appl.*, 65(1):1–15, 1996.
- [2072] Athanassios S. Fokas, Alexander R. Its, Andrei A. Kapaev, and Victor Yu. Novokshenov. *Painlevé transcendents*, volume 128 of *Mathematical Surveys and Monographs*. American Mathematical Society, Providence, RI, 2006. The Riemann-Hilbert approach.
- [2073] Gerald B. Folland. *Quantum field theory*, volume 149 of *Mathematical Surveys and Monographs*. American Mathematical Society, Providence, RI, 2008. A tourist guide for mathematicians.
- [2074] Gerald B. Folland. *Introduction to partial differential equations*. Princeton University Press, Princeton, NJ, second edition, 1995.
- [2075] Gerald B. Folland. *Real analysis*. Pure and Applied Mathematics (New York). John Wiley & Sons, Inc., New York, second edition, 1999. Modern techniques and their applications, A Wiley-Interscience Publication.



- [2076] Mohammud Foondun, Ngartelbaye Guerngar, and Erkan Nane. Some properties of non-linear fractional stochastic heat equations on bounded domains. *Chaos Solitons Fractals*, 102:86–93, 2017.
- [2077] Mohammud Foondun, Mathew Joseph, and Shiu-Tang Li. An approximation result for a class of stochastic heat equations with colored noise. *Ann. Appl. Probab.*, 28(5):2855–2895, 2018.
- [2078] Mohammud Foondun, Mathew Joseph, and Kunwoo Kim. Small ball probability estimates for the Hölder semi-norm of the stochastic heat equation. *Probab. Theory Related Fields*, 185(1-2):553–613, 2023.
- [2079] Mohammud Foondun and Mathew Joseph. Remarks on non-linear noise excitability of some stochastic heat equations. *Stochastic Process. Appl.*, 124(10):3429–3440, 2014.
- [2080] Mohammud Foondun, Davar Khoshnevisan, and Eulalia Nualart. A local-time correspondence for stochastic partial differential equations. *Trans. Amer. Math. Soc.*, 363(5):2481–2515, 2011.
- [2081] Mohammud Foondun, Davar Khoshnevisan, and Pejman Mahboubi. Analysis of the gradient of the solution to a stochastic heat equation via fractional Brownian motion. *Stoch. Partial Differ. Equ. Anal. Comput.*, 3(2):133–158, 2015.
- [2082] Mohammud Foondun and Davar Khoshnevisan. Intermittence and nonlinear parabolic stochastic partial differential equations. *Electron. J. Probab.*, 14:no. 21, 548–568, 2009.
- [2083] Mohammud Foondun and Davar Khoshnevisan. On the global maximum of the solution to a stochastic heat equation with compact-support initial data. *Ann. Inst. Henri Poincaré Probab. Stat.*, 46(4):895–907, 2010.
- [2084] Mohammud Foondun and Davar Khoshnevisan. An asymptotic theory for randomly forced discrete nonlinear heat equations. *Bernoulli*, 18(3):1042–1060, 2012.
- [2085] Mohammud Foondun and Davar Khoshnevisan. On the stochastic heat equation with spatially-colored random forcing. *Trans. Amer. Math. Soc.*, 365(1):409–458, 2013.
- [2086] Mohammud Foondun and Davar Khoshnevisan. Corrections and improvements to: “On the stochastic heat equation with spatially-colored random forcing” [mr2984063]. *Trans. Amer. Math. Soc.*, 366(1):561–562, 2014.
- [2087] Mohammud Foondun, Wei Liu, and McSylvester Omaba. Moment bounds for a class of fractional stochastic heat equations. *Ann. Probab.*, 45(4):2131–2153, 2017.
- [2088] Mohammud Foondun, Wei Liu, and Erkan Nane. Some non-existence results for a class of stochastic partial differential equations. *J. Differential Equations*, 266(5):2575–2596, 2019.
- [2089] Mohammud Foondun, Jebessa B. Mijena, and Erkan Nane. Non-linear noise excitation for some space-time fractional stochastic equations in bounded domains. *Fract. Calc. Appl. Anal.*, 19(6):1527–1553, 2016.
- [2090] Mohammud Foondun and Erkan Nane. Asymptotic properties of some space-time fractional stochastic equations. *Math. Z.*, 287(1-2):493–519, 2017.
- [2091] Mohammud Foondun and Eulalia Nualart. On the behaviour of stochastic heat equations on bounded domains. *ALEA Lat. Am. J. Probab. Math. Stat.*, 12(2):551–571, 2015.
- [2092] Mohammud Foondun and Eulalia Nualart. The Osgood condition for stochastic partial differential equations. *Bernoulli*, 27(1):295–311, 2021.

- [2093] Mohammud Foondun and Eulalia Nualart. Non-existence results for stochastic wave equations in one dimension. *J. Differential Equations*, 318:557–578, 2022.
- [2094] Mohammud Foondun and Rana D. Parshad. On non-existence of global solutions to a class of stochastic heat equations. *Proc. Amer. Math. Soc.*, 143(9):4085–4094, 2015.
- [2095] Mohammud Foondun and Leila Setayeshgar. Large deviations for a class of semilinear stochastic partial differential equations. *Statist. Probab. Lett.*, 121:143–151, 2017.
- [2096] Mohammud Foondun. *Harnack inequalities for integro-differential operators*. ProQuest LLC, Ann Arbor, MI, 2006. Thesis (Ph.D.)–University of Connecticut.
- [2097] Mohammud Foondun. Harmonic functions for a class of integro-differential operators. *Potential Anal.*, 31(1):21–44, 2009.
- [2098] Mohammud Foondun. Heat kernel estimates and Harnack inequalities for some Dirichlet forms with non-local part. *Electron. J. Probab.*, 14:no. 11, 314–340, 2009.
- [2099] Mohammud Foondun. Remarks on a fractional-time stochastic equation. *Proc. Amer. Math. Soc.*, 149(5):2235–2247, 2021.
- [2100] P. J. Forrester. *Log-gases and random matrices*, volume 34 of *London Mathematical Society Monographs Series*. Princeton University Press, Princeton, NJ, 2010.
- [2101] Peter J. Forrester. Beta ensembles. In *The Oxford handbook of random matrix theory*, pages 415–432. Oxford Univ. Press, Oxford, 2011.
- [2102] D. Forster, David R. Nelson, and Michael J. Stephen. Large-distance and long-time properties of a randomly stirred fluid. *Phys. Rev. A (3)*, 16(2):732–749, 1977.
- [2103] C. M. Fortuin, P. W. Kasteleyn, and J. Ginibre. Correlation inequalities on some partially ordered sets. *Comm. Math. Phys.*, 22:89–103, 1971.
- [2104] Charles Fox. The  $G$  and  $H$  functions as symmetrical Fourier kernels. *Trans. Amer. Math. Soc.*, 98:395–429, 1961.
- [2105] L. Frachebourg and Ph. A. Martin. Exact statistical properties of the Burgers equation. *J. Fluid Mech.*, 417:323–349, 2000.
- [2106] Nikos Frangos, David Nualart, and Marta Sanz-Solé. On the Itô formula for two-parameter martingales. In *Stochastic partial differential equations and their applications (Charlotte, NC, 1991)*, volume 176 of *Lect. Notes Control Inf. Sci.*, pages 92–100. Springer, Berlin, 1992.
- [2107] Mark I. Freidlin and Alexander D. Wentzell. *Random perturbations of dynamical systems*, volume 260 of *Grundlehren der mathematischen Wissenschaften [Fundamental Principles of Mathematical Sciences]*. Springer, Heidelberg, third edition, 2012. Translated from the 1979 Russian original by Joseph Szücs.
- [2108] M. I. Freidlin and A. D. Wentzell. *Random perturbations of dynamical systems*, volume 260 of *Grundlehren der mathematischen Wissenschaften [Fundamental Principles of Mathematical Sciences]*. Springer-Verlag, New York, 1984. Translated from the Russian by Joseph Szücs.
- [2109] Shmuel Friedland, Brian Rider, and Ofer Zeitouni. Concentration of permanent estimators for certain large matrices. *Ann. Appl. Probab.*, 14(3):1559–1576, 2004.
- [2110] Avner Friedman and Yoshikazu Giga. A single point blow-up for solutions of semilinear parabolic systems. *J. Fac. Sci. Univ. Tokyo Sect. IA Math.*, 34(1):65–79, 1987.
- [2111] Avner Friedman and Bryce McLeod. Blow-up of positive solutions of semilinear heat equations. *Indiana Univ. Math. J.*, 34(2):425–447, 1985.

- [2112] Avner Friedman and Bryce McLeod. Blow-up of solutions of nonlinear degenerate parabolic equations. *Arch. Rational Mech. Anal.*, 96(1):55–80, 1986.
- [2113] Avner Friedman and Luc Oswald. The blow-up surface for nonlinear wave equations with small spatial velocity. *Trans. Amer. Math. Soc.*, 308(1):349–367, 1988.
- [2114] Avner Friedman and Panagiotis E. Souganidis. Blow-up of solutions of Hamilton-Jacobi equations. *Comm. Partial Differential Equations*, 11(4):397–443, 1986.
- [2115] Avner Friedman. *Partial differential equations of parabolic type*. Prentice-Hall, Inc., Englewood Cliffs, N.J., 1964.
- [2116] Avner Friedman. *Partial differential equations of parabolic type*. Prentice-Hall, Inc., Englewood Cliffs, N.J., 1964.
- [2117] Avner Friedman. Remarks on nonlinear parabolic equations. In *Proc. Sympos. Appl. Math.*, Vol. XVII, pages 3–23. Amer. Math. Soc., Providence, R.I., 1965.
- [2118] Avner Friedman. *Partial differential equations*. Holt, Rinehart and Winston, Inc., New York-Montreal, Que.-London, 1969.
- [2119] Avner Friedman. *Stochastic differential equations and applications. Vol. 1*. Probability and Mathematical Statistics, Vol. 28. Academic Press [Harcourt Brace Jovanovich, Publishers], New York-London, 1975.
- [2120] Bernard Friedman. *Principles and techniques of applied mathematics*. Dover Publications, Inc., New York, 1990. Reprint of the 1956 original.
- [2121] Uriel Frisch. *Turbulence*. Cambridge University Press, Cambridge, 1995. The legacy of A. N. Kolmogorov.
- [2122] J. Fritz and B. Rüdiger. Time dependent critical fluctuations of a one-dimensional local mean field model. *Probab. Theory Related Fields*, 103(3):381–407, 1995.
- [2123] Peter K. Friz and Martin Hairer. *A course on rough paths*. Universitext. Springer, Cham, 2014. With an introduction to regularity structures.
- [2124] Peter K. Friz and Martin Hairer. *A course on rough paths*. Universitext. Springer, Cham, [2020] ©2020. With an introduction to regularity structures, Second edition of [ 3289027].
- [2125] Peter Friz and Nicolas Victoir. A note on the notion of geometric rough paths. *Probab. Theory Related Fields*, 136(3):395–416, 2006.
- [2126] Peter Friz and Nicolas Victoir. Differential equations driven by Gaussian signals. *Ann. Inst. Henri Poincaré Probab. Stat.*, 46(2):369–413, 2010.
- [2127] Peter K. Friz and Nicolas B. Victoir. *Multidimensional stochastic processes as rough paths*, volume 120 of *Cambridge Studies in Advanced Mathematics*. Cambridge University Press, Cambridge, 2010. Theory and applications.
- [2128] J. Fröhlich, B. Simon, and Thomas Spencer. Infrared bounds, phase transitions and continuous symmetry breaking. *Comm. Math. Phys.*, 50(1):79–95, 1976.
- [2129] Andreas M. Fröhlich and Lutz Weis.  $H^{\infty}$  calculus and dilations. *Bull. Soc. Math. France*, 134(4):487–508, 2006.
- [2130] Jürg Fröhlich. On the triviality of  $\lambda\varphi_d^4$  theories and the approach to the critical point in  $d > 4$  dimensions. *Nuclear Phys. B*, 200(2):281–296, 1982.
- [2131] Stephen J. Fromm and David Jerison. Third derivative estimates for Dirichlet’s problem in convex domains. *Duke Math. J.*, 73(2):257–268, 1994.

- [2132] Stephen J. Fromm. Potential space estimates for Green potentials in convex domains. *Proc. Amer. Math. Soc.*, 119(1):225–233, 1993.
- [2133] Stephen J. Fromm. Regularity of the Dirichlet problem in convex domains in the plane. *Michigan Math. J.*, 41(3):491–507, 1994.
- [2134] Hiroshi Fujita. On the blowing up of solutions of the Cauchy problem for  $u_t = \Delta u + u^{1+\alpha}$ . *J. Fac. Sci. Univ. Tokyo Sect. I*, 13:109–124 (1966), 1966.
- [2135] Hiroshi Fujita. On the nonlinear equations  $\Delta u + e^u = 0$  and  $\partial v / \partial t = \Delta v + e^v$ . *Bull. Amer. Math. Soc.*, 75:132–135, 1969.
- [2136] Daisuke Fujiwara and Hiroko Morimoto. An  $L_r$ -theorem of the Helmholtz decomposition of vector fields. *J. Fac. Sci. Univ. Tokyo Sect. IA Math.*, 24(3):685–700, 1977.
- [2137] Masatoshi Fukushima, Yoichi Ōshima, and Masayoshi Takeda. *Dirichlet forms and symmetric Markov processes*, volume 19 of *De Gruyter Studies in Mathematics*. Walter de Gruyter & Co., Berlin, 1994.
- [2138] William Fulton. *Young tableaux*, volume 35 of *London Mathematical Society Student Texts*. Cambridge University Press, Cambridge, 1997. With applications to representation theory and geometry.
- [2139] Tadahisa Funaki and Jeremy Quastel. KPZ equation, its renormalization and invariant measures. *Stoch. Partial Differ. Equ. Anal. Comput.*, 3(2):159–220, 2015.
- [2140] Tadahisa Funaki. Random motion of strings and stochastic differential equations on the space  $C([0, 1], \mathbf{R}^d)$ . In *Stochastic analysis (Katata/Kyoto, 1982)*, volume 32 of *North-Holland Math. Library*, pages 121–133. North-Holland, Amsterdam, 1984.
- [2141] Yan V. Fyodorov and Jean-Philippe Bouchaud. Freezing and extreme-value statistics in a random energy model with logarithmically correlated potential. *J. Phys. A*, 41(37):372001, 12, 2008.
- [2142] Yan V. Fyodorov, Pierre Le Doussal, and Alberto Rosso. Statistical mechanics of logarithmic REM: duality, freezing and extreme value statistics of  $1/f$  noises generated by Gaussian free fields. *J. Stat. Mech. Theory Exp.*, (10):P10005, 32, 2009.
- [2143] Y. V. Fyodorov and D. V. Savin. Resonance scattering of waves in chaotic systems. In *The Oxford handbook of random matrix theory*, pages 703–722. Oxford Univ. Press, Oxford, 2011.
- [2144] Dariusz Gatarek and Beniamin Gołdys. Existence, uniqueness and ergodicity for the stochastic quantization equation. *Studia Math.*, 119(2):179–193, 1996.
- [2145] M. Gage and R. S. Hamilton. The heat equation shrinking convex plane curves. *J. Differential Geom.*, 23(1):69–96, 1986.
- [2146] Victor A. Galaktionov, Josephus Hulshof, and Juan L. Vazquez. Extinction and focusing behaviour of spherical and annular flames described by a free boundary problem. *J. Math. Pures Appl. (9)*, 76(7):563–608, 1997.
- [2147] V. A. Galaktionov, S. P. Kurdjumov, A. P. Mihailov, and A. A. Samarskiui. On unbounded solutions of the Cauchy problem for the parabolic equation  $u_t = \nabla(u^\sigma \nabla u) + u^\beta$ . *Dokl. Akad. Nauk SSSR*, 252(6):1362–1364, 1980.
- [2148] V. A. Galaktionov, S. P. Kurdyumov, and A. A. Samarskiui. A parabolic system of quasilinear equations. I. *Differentsialnye Uravneniya*, 19(12):2123–2140, 1983.
- [2149] V. A. Galaktionov, S. P. Kurdyumov, and A. A. Samarskiui. Approximate self-similar solutions of a class of quasilinear heat equations with a source. *Mat. Sb. (N.S.)*, 124(166)(2):163–188, 1984.

- [2150] V. A. Galaktionov, S. P. Kurdyumov, and A. A. Samarskiui. On the method of stationary states for quasilinear parabolic equations. *Mat. Sb.*, 180(8):995–1016, 1150, 1989.
- [2151] Victor A. Galaktionov and Howard A. Levine. On critical Fujita exponents for heat equations with nonlinear flux conditions on the boundary. *Israel J. Math.*, 94:125–146, 1996.
- [2152] Victor A. Galaktionov and Howard A. Levine. A general approach to critical Fujita exponents in nonlinear parabolic problems. *Nonlinear Anal.*, 34(7):1005–1027, 1998.
- [2153] Victor A. Galaktionov and Lambertus A. Peletier. Asymptotic behaviour near finite-time extinction for the fast diffusion equation. *Arch. Rational Mech. Anal.*, 139(1):83–98, 1997.
- [2154] V. A. Galaktionov and S. A. Posashkov. The equation  $u_t = u_{xx} + u^\beta$ . Localization, asymptotic behavior of unbounded solutions. *Akad. Nauk SSSR Inst. Prikl. Mat. Preprint*, (97):30, 1985.
- [2155] Victor A. Galaktionov, Sergei I. Shmarev, and Juan L. Vazquez. Second-order interface equations for nonlinear diffusion with very strong absorption. *Commun. Contemp. Math.*, 1(1):51–64, 1999.
- [2156] Victor A. Galaktionov and Juan L. Vázquez. The problem of blow-up in nonlinear parabolic equations. volume 8, pages 399–433. 2002. Current developments in partial differential equations (Temuco, 1999).
- [2157] Victor A. Galaktionov and Juan L. Vázquez. Asymptotic behaviour of nonlinear parabolic equations with critical exponents. A dynamical systems approach. *J. Funct. Anal.*, 100(2):435–462, 1991.
- [2158] Victor A. Galaktionov and Juan L. Vázquez. Regional blow up in a semilinear heat equation with convergence to a Hamilton-Jacobi equation. *SIAM J. Math. Anal.*, 24(5):1254–1276, 1993.
- [2159] Victor A. Galaktionov and Juan L. Vázquez. Extinction for a quasilinear heat equation with absorption. I. Technique of intersection comparison. *Comm. Partial Differential Equations*, 19(7-8):1075–1106, 1994.
- [2160] Victor A. Galaktionov and Juan L. Vázquez. Necessary and sufficient conditions for complete blow-up and extinction for one-dimensional quasilinear heat equations. *Arch. Rational Mech. Anal.*, 129(3):225–244, 1995.
- [2161] Victor A. Galaktionov and Juan L. Vazquez. Blow-up for quasilinear heat equations described by means of nonlinear Hamilton-Jacobi equations. *J. Differential Equations*, 127(1):1–40, 1996.
- [2162] Victor A. Galaktionov and Juan L. Vazquez. Continuation of blowup solutions of nonlinear heat equations in several space dimensions. *Comm. Pure Appl. Math.*, 50(1):1–67, 1997.
- [2163] Victor A. Galaktionov and Juan L. Vazquez. Incomplete blow-up and singular interfaces for quasilinear heat equations. *Comm. Partial Differential Equations*, 22(9-10):1405–1452, 1997.
- [2164] Victor A. Galaktionov and Juan L. Vazquez. A dynamical systems approach for the asymptotic analysis of nonlinear heat equations. In *International Conference on Differential Equations (Lisboa, 1995)*, pages 82–106. World Sci. Publ., River Edge, NJ, 1998.
- [2165] V. A. Galaktionov and J. L. Vazquez. Blow-up of a class of solutions with free boundaries for the Navier-Stokes equations. *Adv. Differential Equations*, 4(3):297–321, 1999.
- [2166] V. A. Galaktionov. Approximate self-similar solutions of equations of heat conduction type. *Differentsialnye Uravneniya*, 16(9):1660–1676, 1726, 1980.

- [2167] V. A. Galaktionov. A boundary value problem for the nonlinear parabolic equation  $u_t = \Delta u^{\sigma+1} + u^\beta$ . *Differentsialnye Uravneniya*, 17(5):836–842, 956, 1981.
- [2168] V. A. Galaktionov. Conditions for the absence of global solutions of a class of quasilinear parabolic equations. *Zh. Vychisl. Mat. i Mat. Fiz.*, 22(2):322–338, 492, 1982.
- [2169] V. A. Galaktionov. Conditions for nonexistence in the large and localization of solutions of the Cauchy problem for a class of nonlinear parabolic equations. *Zh. Vychisl. Mat. i Mat. Fiz.*, 23(6):1341–1354, 1983.
- [2170] V. A. Galaktionov. A proof of the localization of unbounded solutions of the nonlinear parabolic equation  $u_t = (u^\sigma u_x)_x + u^\beta$ . *Differentsialnye Uravneniya*, 21(1):15–23, 179–180, 1985.
- [2171] V. A. Galaktionov. Asymptotic behavior of unbounded solutions of the nonlinear equation  $u_t = (u^\sigma u_x)_x + u^\beta$  near a “singular” point. *Dokl. Akad. Nauk SSSR*, 288(6):1293–1297, 1986.
- [2172] Victor A. Galaktionov. On new exact blow-up solutions for nonlinear heat conduction equations with source and applications. *Differential Integral Equations*, 3(5):863–874, 1990.
- [2173] Victor A. Galaktionov. Blow-up for quasilinear heat equations with critical Fujita’s exponents. *Proc. Roy. Soc. Edinburgh Sect. A*, 124(3):517–525, 1994.
- [2174] Victor A. Galaktionov. Invariant subspaces and new explicit solutions to evolution equations with quadratic nonlinearities. *Proc. Roy. Soc. Edinburgh Sect. A*, 125(2):225–246, 1995.
- [2175] Lucio Galeati and Massimiliano Gubinelli. Prevalence of  $\rho$ -irregularity and related properties. *preprint arXiv:2004.00872*, April 2020.
- [2176] N. Gantert and O. Zeitouni. Large and moderate deviations for the local time of a recurrent Markov chain on  $\mathbf{Z}^2$ . *Ann. Inst. H. Poincaré Probab. Statist.*, 34(5):687–704, 1998.
- [2177] Nina Gantert and Ofer Zeitouni. Quenched sub-exponential tail estimates for one-dimensional random walk in random environment. *Comm. Math. Phys.*, 194(1):177–190, 1998.
- [2178] Nina Gantert and Ofer Zeitouni. Large deviations for one-dimensional random walk in a random environment—a survey. In *Random walks (Budapest, 1998)*, volume 9 of *Bolyai Soc. Math. Stud.*, pages 127–165. János Bolyai Math. Soc., Budapest, 1999.
- [2179] Fuqing Gao and Jeremy Quastel. Exponential decay of entropy in the random transposition and Bernoulli-Laplace models. *Ann. Appl. Probab.*, 13(4):1591–1600, 2003.
- [2180] Fuqing Gao and J. Quastel. Moderate deviations from the hydrodynamic limit of the symmetric exclusion process. *Sci. China Ser. A*, 46(5):577–592, 2003.
- [2181] Christophe Garban and Jeffrey E. Steif. Noise sensitivity and percolation. In *Probability and statistical physics in two and more dimensions*, volume 15 of *Clay Math. Proc.*, pages 49–154. Amer. Math. Soc., Providence, RI, 2012.
- [2182] C. W. Gardiner. *Handbook of stochastic methods*, volume 13 of *Springer Series in Synergetics*. Springer-Verlag, Berlin, second edition, 1985. For physics, chemistry and the natural sciences.
- [2183] Valentin Garino, Ivan Nourdin, David Nualart, and Majid Salamat. Limit theorems for integral functionals of Hermite-driven processes. *Bernoulli*, 27(3):1764–1788, 2021.
- [2184] A. M. Garsia, E. Rodemich, and H. Rumsey, Jr. A real variable lemma and the continuity of paths of some Gaussian processes. *Indiana Univ. Math. J.*, 20:565–578, 1970/71.
- [2185] A. M. Garsia and E. Rodemich. Monotonicity of certain functionals under rearrangement. *Ann. Inst. Fourier (Grenoble)*, 24(2):vi, 67–116, 1974.

- [2186] Adriano M. Garsia. Continuity properties of Gaussian processes with multidimensional time parameter. In *Proceedings of the Sixth Berkeley Symposium on Mathematical Statistics and Probability (Univ. California, Berkeley, Calif., 1970/1971), Vol. II: Probability theory*, pages 369–374, 1972.
- [2187] J. Gärtner, W. König, and S. A. Molchanov. Almost sure asymptotics for the continuous parabolic Anderson model. *Probab. Theory Related Fields*, 118(4):547–573, 2000.
- [2188] Jürgen Gärtner, Wolfgang König, and Stanislav Molchanov. Geometric characterization of intermittency in the parabolic Anderson model. *Ann. Probab.*, 35(2):439–499, 2007.
- [2189] Jürgen Gärtner and Wolfgang König. Moment asymptotics for the continuous parabolic Anderson model. *Ann. Appl. Probab.*, 10(1):192–217, 2000.
- [2190] Jürgen Gärtner and Wolfgang König. The parabolic Anderson model. In *Interacting stochastic systems*, pages 153–179. Springer, Berlin, 2005.
- [2191] J. Gärtner and S. A. Molchanov. Parabolic problems for the Anderson model. I. Intermittency and related topics. *Comm. Math. Phys.*, 132(3):613–655, 1990.
- [2192] J. Gärtner and S. A. Molchanov. Parabolic problems for the Anderson model. II. Second-order asymptotics and structure of high peaks. *Probab. Theory Related Fields*, 111(1):17–55, 1998.
- [2193] Jürgen Gärtner. Convergence towards Burgers’ equation and propagation of chaos for weakly asymmetric exclusion processes. *Stochastic Process. Appl.*, 27(2):233–260, 1988.
- [2194] Johanna Garzón, Samy Tindel, and Soledad Torres. Euler scheme for fractional delay stochastic differential equations by rough paths techniques. *Acta Math. Sci. Ser. B (Engl. Ed.)*, 39(3):747–763, 2019.
- [2195] Ioannis Gasteratos, Michael Salins, and Konstantinos Spiliopoulos. Moderate deviations for systems of slow-fast stochastic reaction-diffusion equations. *Stoch. Partial Differ. Equ. Anal. Comput.*, 11(2):503–598, 2023.
- [2196] Jim Gatheral, Elton P. Hsu, Peter Laurence, Cheng Ouyang, and Tai-Ho Wang. Asymptotics of implied volatility in local volatility models. *Math. Finance*, 22(4):591–620, 2012.
- [2197] Bernard Gaveau and Philip Trauber. L’intégrale stochastique comme opérateur de divergence dans l’espace fonctionnel. *J. Functional Analysis*, 46(2):230–238, 1982.
- [2198] K. Gaw edzki and A. Kupiainen. Block spin renormalization group for dipole gas and  $(\nabla\varphi)^4$ . *Ann. Physics*, 147(1):198–243, 1983.
- [2199] K. Gaw edzki and A. Kupiainen. Massless lattice  $\varphi_4^4$  theory: rigorous control of a renormalizable asymptotically free model. *Comm. Math. Phys.*, 99(2):197–252, 1985.
- [2200] Wolfgang Gawronski. On the bell-shape of stable densities. *Ann. Probab.*, 12(1):230–242, 1984.
- [2201] J. Geanakoplos, W. Sudderth, and O. Zeitouni. Asymptotic behavior of a stochastic discount rate. *Sankhya A*, 76(1):150–157, 2014.
- [2202] Christel Geiß and Ralf Manthey. Comparison theorems for stochastic differential equations in finite and infinite dimensions. *Stochastic Process. Appl.*, 53(1):23–35, 1994.
- [2203] I. M. Gelfand and G. E. Shilov. *Generalized functions. Vol. 1*. AMS Chelsea Publishing, Providence, RI, 2016. Properties and operations, Translated from the 1958 Russian original [MR0097715] by Eugene Saletan, Reprint of the 1964 English translation [MR0166596].

- [2204] I. M. Gelfand and N. Ya. Vilenkin. *Generalized functions. Vol. 4.* AMS Chelsea Publishing, Providence, RI, 2016. Applications of harmonic analysis, Translated from the 1961 Russian original [ MR0146653] by Amiel Feinstein, Reprint of the 1964 English translation [ MR0173945].
- [2205] I. M. Gelfand. Some problems in the theory of quasilinear equations. *Amer. Math. Soc. Transl. (2)*, 29:295–381, 1963.
- [2206] Zachary A. Gelbaum. Fractional Brownian fields over manifolds. *Trans. Amer. Math. Soc.*, 366(9):4781–4814, 2014.
- [2207] I. M. Gel’fand and G. E. Shilov. *Generalized functions. Vol. I: Properties and operations.* Academic Press, New York-London, 1964. Translated by Eugene Saletan.
- [2208] Donald Geman and Joseph Horowitz. Occupation densities. *Ann. Probab.*, 8(1):1–67, 1980.
- [2209] Xi Geng, Cheng Ouyang, and Samy Tindel. Precise local estimates for differential equations driven by fractional Brownian motion: hypoelliptic case. *Ann. Probab.*, 50(2):649–687, 2022.
- [2210] Xi Geng, Cheng Ouyang, and Samy Tindel. Precise local estimates for differential equations driven by fractional Brownian motion: elliptic case. *J. Theoret. Probab.*, 36(3):1341–1367, 2023.
- [2211] Nicos Georgiou, Mathew Joseph, Davar Khoshnevisan, and Shang-Yuan Shiu. Semi-discrete semi-linear parabolic SPDEs. *Ann. Appl. Probab.*, 25(5):2959–3006, 2015.
- [2212] Nicos Georgiou, Davar Khoshnevisan, Kunwoo Kim, and Alex D. Ramos. The dimension of the range of a transient random walk. *Electron. J. Probab.*, 23:Paper No. 83, 31, 2018.
- [2213] Nicos Georgiou, Rohini Kumar, and Timo Seppäläinen. TASEP with discontinuous jump rates. *ALEA Lat. Am. J. Probab. Math. Stat.*, 7:293–318, 2010.
- [2214] Nicos Georgiou, Firas Rassoul-Agha, Timo Seppäläinen, and Atilla Yilmaz. Ratios of partition functions for the log-gamma polymer. *Ann. Probab.*, 43(5):2282–2331, 2015.
- [2215] Nicos Georgiou, Firas Rassoul-Agha, and Timo Seppäläinen. Variational formulas and cocycle solutions for directed polymer and percolation models. *Comm. Math. Phys.*, 346(2):741–779, 2016.
- [2216] Nicos Georgiou, Firas Rassoul-Agha, and Timo Seppäläinen. Geodesics and the competition interface for the corner growth model. *Probab. Theory Related Fields*, 169(1-2):223–255, 2017.
- [2217] Nicos Georgiou, Firas Rassoul-Agha, and Timo Seppäläinen. Stationary cocycles and Busemann functions for the corner growth model. *Probab. Theory Related Fields*, 169(1-2):177–222, 2017.
- [2218] Nicos Georgiou and Timo Seppäläinen. Large deviation rate functions for the partition function in a log-gamma distributed random potential. *Ann. Probab.*, 41(6):4248–4286, 2013.
- [2219] Andris Gerasimovičs and Martin Hairer. Hörmander’s theorem for semilinear SPDEs. *Electron. J. Probab.*, 24:Paper No. 132, 56, 2019.
- [2220] Máté Gerencsér and Martin Hairer. Singular SPDEs in domains with boundaries. *Probab. Theory Related Fields*, 173(3-4):697–758, 2019.
- [2221] Máté Gerencsér and Martin Hairer. A solution theory for quasilinear singular SPDEs. *Comm. Pure Appl. Math.*, 72(9):1983–2005, 2019.
- [2222] Luca Gerolla, Martin Hairer, and Xue-Mei Li. Fluctuations of stochastic pdes with long-range correlations. *preprint arXiv:2303.09811*, March 2023.



- [2223] I. Gershenzon, B. Lacroix-A-Chez-Toine, O. Raz, E. Subag, and O. Zeitouni. On-site potential creates complexity in systems with disordered coupling. *Phys. Rev. Lett.*, 130(23):Paper No. 237103, 8, 2023.
- [2224] Benjamin Gess, Cheng Ouyang, and Samy Tindel. Density bounds for solutions to differential equations driven by Gaussian rough paths. *J. Theoret. Probab.*, 33(2):611–648, 2020.
- [2225] Fritz Gesztesy and Marius Mitrea. A description of all self-adjoint extensions of the Laplacian and Krein-type resolvent formulas on non-smooth domains. *J. Anal. Math.*, 113:53–172, 2011.
- [2226] Stefano Ghirlanda and Francesco Guerra. General properties of overlap probability distributions in disordered spin systems. Towards Parisi ultrametricity. *J. Phys. A*, 31(46):9149–9155, 1998.
- [2227] Subhroshekhar Ghosh and Ofer Zeitouni. Large deviations for zeros of random polynomials with i.i.d. exponential coefficients. *Int. Math. Res. Not. IMRN*, (5):1308–1347, 2016.
- [2228] Giambattista Giacomin, Hubert Lacoin, and Fabio Lucio Toninelli. Hierarchical pinning models, quadratic maps and quenched disorder. *Probab. Theory Related Fields*, 147(1-2):185–216, 2010.
- [2229] Giambattista Giacomin, Stefano Olla, and Herbert Spohn. Equilibrium fluctuations for  $\nabla\phi$  interface model. *Ann. Probab.*, 29(3):1138–1172, 2001.
- [2230] Giambattista Giacomin. *Random polymer models*. Imperial College Press, London, 2007.
- [2231] Yoshikazu Giga and Robert V. Kohn. Characterizing blowup using similarity variables. *Indiana Univ. Math. J.*, 36(1):1–40, 1987.
- [2232] Yoshikazu Giga. Analyticity of the semigroup generated by the Stokes operator in  $L_r$  spaces. *Math. Z.*, 178(3):297–329, 1981.
- [2233] Yoshikazu Giga. Domains of fractional powers of the Stokes operator in  $L_r$  spaces. *Arch. Rational Mech. Anal.*, 89(3):251–265, 1985.
- [2234] Yoshikazu Giga. Interior derivative blow-up for quasilinear parabolic equations. *Discrete Contin. Dynam. Systems*, 1(3):449–461, 1995.
- [2235] David Gilbarg and Neil S. Trudinger. *Elliptic partial differential equations of second order*. Classics in Mathematics. Springer-Verlag, Berlin, 2001. Reprint of the 1998 edition.
- [2236] P. Ginsparg and J. Zinn-Justin. 2D gravity + 1D matter. *Phys. Lett. B*, 240(3-4):333–340, 1990.
- [2237] Luca M. Giordano, Maria Jolis, and Lluís Quer-Sardanyons. SPDEs with linear multiplicative fractional noise: continuity in law with respect to the Hurst index. *Stochastic Process. Appl.*, 130(12):7396–7430, 2020.
- [2238] Luca M. Giordano, Maria Jolis, and Lluís Quer-Sardanyons. SPDEs with fractional noise in space: continuity in law with respect to the Hurst index. *Bernoulli*, 26(1):352–386, 2020.
- [2239] Arianna Giunti, Yu Gu, and Jean-Christophe Mourrat. Heat kernel upper bounds for interacting particle systems. *Ann. Probab.*, 47(2):1056–1095, 2019.
- [2240] L. Glangetas and F. Merle. Concentration properties of blow-up solutions and instability results for Zakharov equation in dimension two. II. *Comm. Math. Phys.*, 160(2):349–389, 1994.
- [2241] L. Glangetas and F. Merle. Existence of self-similar blow-up solutions for Zakharov equation in dimension two. I. *Comm. Math. Phys.*, 160(1):173–215, 1994.

- [2242] James Glimm, Arthur Jaffe, and Thomas Spencer. Phase transitions for  $\phi_2^4$  quantum fields. *Comm. Math. Phys.*, 45(3):203–216, 1975.
- [2243] James Glimm and Arthur Jaffe. *Quantum physics*. Springer-Verlag, New York-Berlin, 1981. A functional integral point of view.
- [2244] James Glimm and Arthur Jaffe. *Quantum physics*. Springer-Verlag, New York, second edition, 1987. A functional integral point of view.
- [2245] C. Godrèche. *Solids far from equilibrium*, volume 1 of *Collection Aléa-Saclay: Monographs and Texts in Statistical Physics*. Cambridge University Press, Cambridge, 1992.
- [2246] Chris Godsil and Gordon Royle. *Algebraic graph theory*, volume 207 of *Graduate Texts in Mathematics*. Springer-Verlag, New York, 2001.
- [2247] S. I. Goldberg and C. Mueller. Brownian motion, geometry, and generalizations of Picard’s little theorem. *Bull. Amer. Math. Soc. (N.S.)*, 7(1):259–263, 1982.
- [2248] S. I. Goldberg and C. Mueller. Brownian motion, geometry, and generalizations of Picard’s little theorem. *Ann. Probab.*, 11(4):833–846, 1983.
- [2249] David Goldberg. A local version of real Hardy spaces. *Duke Math. J.*, 46(1):27–42, 1979.
- [2250] Larry Goldstein, Ivan Nourdin, and Giovanni Peccati. Gaussian phase transitions and conic intrinsic volumes: Steining the Steiner formula. *Ann. Appl. Probab.*, 27(1):1–47, 2017.
- [2251] Ben Goldys, Szymon Peszat, and Jerzy Zabczyk. Gauss-Markov processes on Hilbert spaces. *Trans. Amer. Math. Soc.*, 368(1):89–108, 2016.
- [2252] Benjamin Goldys, Michael Röckner, and Xicheng Zhang. Martingale solutions and Markov selections for stochastic partial differential equations. *Stochastic Process. Appl.*, 119(5):1725–1764, 2009.
- [2253] Alejandro Gomez, Kijung Lee, Carl Mueller, Ang Wei, and Jie Xiong. Strong uniqueness for an SPDE via backward doubly stochastic differential equations. *Statist. Probab. Lett.*, 83(10):2186–2190, 2013.
- [2254] Alejandro Gomez, Jong Jun Lee, Carl Mueller, Eyal Neuman, and Michael Salins. On uniqueness and blowup properties for a class of second order SDEs. *Electron. J. Probab.*, 22:Paper No. 72, 17, 2017.
- [2255] Patrícia Gonçalves and Milton Jara. Nonlinear fluctuations of weakly asymmetric interacting particle systems. *Arch. Ration. Mech. Anal.*, 212(2):597–644, 2014.
- [2256] Rudolf Gorenflo, Francesco Mainardi, Daniele Moretti, Gianni Pagnini, and Paolo Paradisi. Fractional diffusion: probability distributions and random walk models. volume 305, pages 106–112. 2002. Non extensive thermodynamics and physical applications (Villasimius, 2001).
- [2257] Luis G. Gorostiza and David Nualart. Nuclear Gelfand triples on Wiener space and applications to trajectorial fluctuations of particle systems. *J. Funct. Anal.*, 125(1):37–66, 1994.
- [2258] Nathael Gozlan, Cyril Roberto, and Paul-Marie Samson. From concentration to logarithmic Sobolev and Poincaré inequalities. *J. Funct. Anal.*, 260(5):1491–1522, 2011.
- [2259] Mihai Gradinaru, Ivan Nourdin, and Samy Tindel. Ito’s- and Tanaka’s-type formulae for the stochastic heat equation: the linear case. *J. Funct. Anal.*, 228(1):114–143, 2005.
- [2260] Mihai Gradinaru and Ivan Nourdin. Stochastic volatility: approximation and goodness-of-fit test. *Probab. Math. Statist.*, 28(1):1–19, 2008.

- [2261] Mihai Gradinaru and Ivan Nourdin. Milstein’s type schemes for fractional SDEs. *Ann. Inst. Henri Poincaré Probab. Stat.*, 45(4):1085–1098, 2009.
- [2262] Mihai Gradinaru, Francesco Russo, and Pierre Vallois. Generalized covariations, local time and Stratonovich Itô’s formula for fractional Brownian motion with Hurst index  $H \geq \frac{1}{4}$ . *Ann. Probab.*, 31(4):1772–1820, 2003.
- [2263] Mihai Gradinaru and Samy Tindel. On homogeneous pinning models and penalizations. *Stoch. Dyn.*, 8(3):383–396, 2008.
- [2264] I. S. Gradshteyn and I. M. Ryzhik. *Table of integrals, series, and products*. Academic Press, Inc., San Diego, CA, sixth edition, 2000. Translated from the Russian, Translation edited and with a preface by Alan Jeffrey and Daniel Zwillinger.
- [2265] Loukas Grafakos. *Classical Fourier analysis*, volume 249 of *Graduate Texts in Mathematics*. Springer, New York, third edition, 2014.
- [2266] Loukas Grafakos. *Modern Fourier analysis*, volume 250 of *Graduate Texts in Mathematics*. Springer, New York, third edition, 2014.
- [2267] Janko Gravner and Jeremy Quastel. Internal DLA and the Stefan problem. *Ann. Probab.*, 28(4):1528–1562, 2000.
- [2268] Janko Gravner, Craig A. Tracy, and Harold Widom. Limit theorems for height fluctuations in a class of discrete space and time growth models. *J. Statist. Phys.*, 102(5-6):1085–1132, 2001.
- [2269] Janko Gravner, Craig A. Tracy, and Harold Widom. Fluctuations in the composite regime of a disordered growth model. *Comm. Math. Phys.*, 229(3):433–458, 2002.
- [2270] Janko Gravner, Craig A. Tracy, and Harold Widom. A growth model in a random environment. *Ann. Probab.*, 30(3):1340–1368, 2002.
- [2271] A. Greven and F. den Hollander. Phase transitions for the long-time behavior of interacting diffusions. *Ann. Probab.*, 35(4):1250–1306, 2007.
- [2272] Andreas Greven and Frank den Hollander. Branching random walk in random environment: phase transitions for local and global growth rates. *Probab. Theory Related Fields*, 91(2):195–249, 1992.
- [2273] Andreas Greven and Frank den Hollander. A variational characterization of the speed of a one-dimensional self-repellent random walk. *Ann. Appl. Probab.*, 3(4):1067–1099, 1993.
- [2274] Andreas Greven and Frank den Hollander. Large deviations for a random walk in random environment. *Ann. Probab.*, 22(3):1381–1428, 1994.
- [2275] Ilie Grigorescu, Min Kang, and Timo Seppäläinen. Behavior dominated by slow particles in a disordered asymmetric exclusion process. *Ann. Appl. Probab.*, 14(3):1577–1602, 2004.
- [2276] Geoffrey Grimmett and Philipp Hiemer. Directed percolation and random walk. In *In and out of equilibrium (Mambucaba, 2000)*, volume 51 of *Progr. Probab.*, pages 273–297. Birkhäuser Boston, Boston, MA, 2002.
- [2277] G. R. Grimmett, H. Kesten, and Y. Zhang. Random walk on the infinite cluster of the percolation model. *Probab. Theory Related Fields*, 96(1):33–44, 1993.
- [2278] Geoffrey R. Grimmett and Zhongyang Li. Self-avoiding walks and amenability. *Electron. J. Combin.*, 24(4):Paper No. 4.38, 24, 2017.

- [2279] Geoffrey Grimmett. *Percolation*, volume 321 of *Grundlehren der mathematischen Wissenschaften [Fundamental Principles of Mathematical Sciences]*. Springer-Verlag, Berlin, second edition, 1999.
- [2280] Gustaf Gripenberg. On the resolvents of nonconvolution Volterra kernels. *Funkcial. Ekvac.*, 23(1):83–95, 1980.
- [2281] Pierre Grisvard. *Elliptic problems in nonsmooth domains*, volume 24 of *Monographs and Studies in Mathematics*. Pitman (Advanced Publishing Program), Boston, MA, 1985.
- [2282] Pablo Groisman. Totally discrete explicit and semi-implicit Euler methods for a blow-up problem in several space dimensions. *Computing*, 76(3-4):325–352, 2006.
- [2283] Valerii I. Gromak, Ilpo Laine, and Shun Shimomura. *Painlevé differential equations in the complex plane*, volume 28 of *De Gruyter Studies in Mathematics*. Walter de Gruyter & Co., Berlin, 2002.
- [2284] Axel Grorud, David Nualart, and Marta Sanz-Solé. Hilbert-valued anticipating stochastic differential equations. *Ann. Inst. H. Poincaré Probab. Statist.*, 30(1):133–161, 1994.
- [2285] David J. Gross and Igor Klebanov. One-dimensional string theory on a circle. *Nuclear Phys. B*, 344(3):475–498, 1990.
- [2286] David J. Gross and Nikola Miljković. A nonperturbative solution of  $D = 1$  string theory. *Phys. Lett. B*, 238(2-4):217–223, 1990.
- [2287] Leonard Gross. Abstract Wiener spaces. In *Proc. Fifth Berkeley Sympos. Math. Statist. and Probability (Berkeley, Calif., 1965/66), Vol. II: Contributions to Probability Theory, Part 1*, pages 31–42. Univ. California Press, Berkeley, Calif., 1967.
- [2288] Martin Grothaus, Maria João Oliveira, José Luís da Silva, and Ludwig Streit. Self-avoiding fractional Brownian motion—the Edwards model. *J. Stat. Phys.*, 145(6):1513–1523, 2011.
- [2289] Michael Grüter and Kjell-Ove Widman. The Green function for uniformly elliptic equations. *Manuscripta Math.*, 37(3):303–342, 1982.
- [2290] Yu Gu and Guillaume Bal. Random homogenization and convergence to integrals with respect to the Rosenblatt process. *J. Differential Equations*, 253(4):1069–1087, 2012.
- [2291] Yu Gu and Guillaume Bal. An invariance principle for Brownian motion in random scenery. *Electron. J. Probab.*, 19:no. 1, 19, 2014.
- [2292] Yu Gu and Guillaume Bal. Fluctuations of parabolic equations with large random potentials. *Stoch. Partial Differ. Equ. Anal. Comput.*, 3(1):1–51, 2015.
- [2293] Yu Gu and Guillaume Bal. Homogenization of parabolic equations with large time-dependent random potential. *Stochastic Process. Appl.*, 125(1):91–115, 2015.
- [2294] Yu Gu and Guillaume Bal. Weak convergence approach for parabolic equations with large, highly oscillatory, random potential. *Ann. Inst. Henri Poincaré Probab. Stat.*, 52(1):261–285, 2016.
- [2295] Yu Gu and Christopher Henderson. A PDE hierarchy for directed polymers in random environments. *Nonlinearity*, 34(10):7335–7370, 2021.
- [2296] Yu Gu and Christopher Henderson. Long-time behaviour for a nonlocal model from directed polymers. *Nonlinearity*, 36(2):902–954, 2023.
- [2297] Yu Gu and Jingyu Huang. Chaos expansion of 2D parabolic Anderson model. *Electron. Commun. Probab.*, 23:Paper No. 26, 10, 2018.

- [2298] Yu Gu, Tomasz Komorowski, and Lenya Ryzhik. Fluctuations of random semilinear advection equations. *SIAM J. Math. Anal.*, 50(5):5293–5336, 2018.
- [2299] Yu Gu, Tomasz Komorowski, and Lenya Ryzhik. The Schrödinger equation with spatial white noise: the average wave function. *J. Funct. Anal.*, 274(7):2113–2138, 2018.
- [2300] Yu Gu and Tomasz Komorowski. Gaussian fluctuations from random Schrödinger equation. *Comm. Partial Differential Equations*, 46(2):201–232, 2021.
- [2301] Yu Gu and Tomasz Komorowski. High temperature behaviors of the directed polymer on a cylinder. *preprint arXiv:2110.07368*, October 2021.
- [2302] Yu Gu and Tomasz Komorowski. Kpz on torus: Gaussian fluctuations. *preprint arXiv:2104.13540*, April 2021.
- [2303] Yu Gu and Tomasz Komorowski. Another look at the balázs-quastel-seppäläinen theorem. *preprint arXiv:2203.03733*, March 2022.
- [2304] Yu Gu and Tomasz Komorowski. Gaussian fluctuations of replica overlap in directed polymers. *Electron. Commun. Probab.*, 27:Paper No. 33, 12, 2022.
- [2305] Yu Gu and Tomasz Komorowski. Gaussian fluctuations of replica overlap in directed polymers. *preprint arXiv:2201.07097*, January 2022.
- [2306] Yu Gu and Tomasz Komorowski. High temperature behaviors of the directed polymer on a cylinder. *J. Stat. Phys.*, 186(3):Paper No. 48, 15, 2022.
- [2307] Yu Gu and Tomasz Komorowski. Another look at the Balázs-Quastel-Seppäläinen theorem. *Trans. Amer. Math. Soc.*, 376(4):2947–2962, 2023.
- [2308] Yu Gu and Tomasz Komorowski. Fluctuations of the winding number of a directed polymer on a cylinder. *SIAM J. Math. Anal.*, 55(4):3262–3286, 2023.
- [2309] Yu Gu and Jiawei Li. Fluctuations of a nonlinear stochastic heat equation in dimensions three and higher. *SIAM J. Math. Anal.*, 52(6):5422–5440, 2020.
- [2310] Yu Gu and Jean-Christophe Mourrat. Pointwise two-scale expansion for parabolic equations with random coefficients. *Probab. Theory Related Fields*, 166(1-2):585–618, 2016.
- [2311] Yu Gu and Jean-Christophe Mourrat. Scaling limit of fluctuations in stochastic homogenization. *Multiscale Model. Simul.*, 14(1):452–481, 2016.
- [2312] Yu Gu and Jean-Christophe Mourrat. On generalized Gaussian free fields and stochastic homogenization. *Electron. J. Probab.*, 22:Paper No. 28, 21, 2017.
- [2313] Yu Gu, Jeremy Quastel, and Li-Cheng Tsai. Moments of the 2D SHE at criticality. *Probab. Math. Phys.*, 2(1):179–219, 2021.
- [2314] Yu Gu, Lenya Ryzhik, and Ofer Zeitouni. The Edwards-Wilkinson limit of the random heat equation in dimensions three and higher. *Comm. Math. Phys.*, 363(2):351–388, 2018.
- [2315] Yu Gu and Lenya Ryzhik. The random Schrödinger equation: homogenization in time-dependent potentials. *Multiscale Model. Simul.*, 14(1):323–363, 2016.
- [2316] Yu Gu and Lenya Ryzhik. The random Schrödinger equation: slowly decorrelating time-dependent potentials. *Commun. Math. Sci.*, 15(2):359–378, 2017.
- [2317] Yu Gu and Li-Cheng Tsai. Another look into the Wong-Zakai theorem for stochastic heat equation. *Ann. Appl. Probab.*, 29(5):3037–3061, 2019.
- [2318] Yu Gu and Weijun Xu. Moments of 2D parabolic Anderson model. *Asymptot. Anal.*, 108(3):151–161, 2018.

- [2319] Yu Gu. *Probabilistic Approaches to Partial Differential Equations with Large Random Potentials*. ProQuest LLC, Ann Arbor, MI, 2014. Thesis (Ph.D.)—Columbia University.
- [2320] Yu Gu. A central limit theorem for fluctuations in 1D stochastic homogenization. *Stoch. Partial Differ. Equ. Anal. Comput.*, 4(4):713–745, 2016.
- [2321] Yu Gu. High order correctors and two-scale expansions in stochastic homogenization. *Probab. Theory Related Fields*, 169(3-4):1221–1259, 2017.
- [2322] Yu Gu. The 1D Schrödinger equation with a spacetime white noise: the average wave function. *ESAIM Probab. Stat.*, 23:338–349, 2019.
- [2323] Yu Gu. Gaussian fluctuations from the 2D KPZ equation. *Stoch. Partial Differ. Equ. Anal. Comput.*, 8(1):150–185, 2020.
- [2324] Massimiliano Gubinelli and Martina Hofmanová. Global solutions to elliptic and parabolic  $\Phi^4$  models in Euclidean space. *Comm. Math. Phys.*, 368(3):1201–1266, 2019.
- [2325] Massimiliano Gubinelli, Peter Imkeller, and Nicolas Perkowski. Paracontrolled distributions and singular PDEs. *Forum Math. Pi*, 3:e6, 75, 2015.
- [2326] Massimiliano Gubinelli, Antoine Lejay, and Samy Tindel. Young integrals and SPDEs. *Potential Anal.*, 25(4):307–326, 2006.
- [2327] Massimiliano Gubinelli and Nicolas Perkowski. KPZ reloaded. *Comm. Math. Phys.*, 349(1):165–269, 2017.
- [2328] Massimiliano Gubinelli and Nicolas Perkowski. Energy solutions of KPZ are unique. *J. Amer. Math. Soc.*, 31(2):427–471, 2018.
- [2329] Massimiliano Gubinelli and Nicolas Perkowski. An introduction to singular SPDEs. In *Stochastic partial differential equations and related fields*, volume 229 of *Springer Proc. Math. Stat.*, pages 69–99. Springer, Cham, 2018.
- [2330] Massimiliano Gubinelli and Nicolas Perkowski. The infinitesimal generator of the stochastic Burgers equation. *Probab. Theory Related Fields*, 178(3-4):1067–1124, 2020.
- [2331] Massimiliano Gubinelli and Samy Tindel. Rough evolution equations. *Ann. Probab.*, 38(1):1–75, 2010.
- [2332] M. Gubinelli, B. Ugurcan, and I. Zachhuber. Semilinear evolution equations for the Anderson Hamiltonian in two and three dimensions. *Stoch. Partial Differ. Equ. Anal. Comput.*, 8(1):82–149, 2020.
- [2333] M. Gubinelli. Controlling rough paths. *J. Funct. Anal.*, 216(1):86–140, 2004.
- [2334] Steven S. Gubser and Igor R. Klebanov. A modified  $c = 1$  matrix model with new critical behavior. *Phys. Lett. B*, 340(1-2):35–42, 1994.
- [2335] Hélène Guérin, Sylvie Méléard, and Eulalia Nualart. Estimates for the density of a nonlinear Landau process. *J. Funct. Anal.*, 238(2):649–677, 2006.
- [2336] Ngartelbaye Guerngar, Erkan Nane, Ramazan Tinaztepe, Suleyman Ulusoy, and Hans Werner Van Wyk. Simultaneous inversion for the fractional exponents in the space-time fractional diffusion equation  $\partial_t^\beta u = -(-\Delta)^{\alpha/2}u - (-\Delta)^{\gamma/2}u$ . *Fract. Calc. Appl. Anal.*, 24(3):818–847, 2021.
- [2337] Ngartelbaye Guerngar, Erkan Nane, Suleyman Ulusoy, and Hans Werner van Wyk. A uniqueness determination of the fractional exponents in a three-parameter fractional diffusion. *Fract. Differ. Calc.*, 13(1):87–104, 2023.

- [2338] Ngartelbaye Guerngar and Erkan Nane. Moment bounds of a class of stochastic heat equations driven by space-time colored noise in bounded domains. *Stochastic Process. Appl.*, 130(10):6246–6270, 2020.
- [2339] João M. E. Guerra and David 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(1):91–115, 2005.
- [2340] João Guerra and David Nualart. Stochastic differential equations driven by fractional Brownian motion and standard Brownian motion. *Stoch. Anal. Appl.*, 26(5):1053–1075, 2008.
- [2341] Francesco Guerra and Fabio Lucio Toninelli. The thermodynamic limit in mean field spin glass models. *Comm. Math. Phys.*, 230(1):71–79, 2002.
- [2342] Francesco Guerra. Broken replica symmetry bounds in the mean field spin glass model. *Comm. Math. Phys.*, 233(1):1–12, 2003.
- [2343] Thomas Guhr. Supersymmetry. In *The Oxford handbook of random matrix theory*, pages 135–154. Oxford Univ. Press, Oxford, 2011.
- [2344] Alice Guionnet, Manjunath Krishnapur, and Ofer Zeitouni. The single ring theorem. *Ann. of Math. (2)*, 174(2):1189–1217, 2011.
- [2345] Alice Guionnet, Philip Matchett Wood, and Ofer Zeitouni. Convergence of the spectral measure of non-normal matrices. *Proc. Amer. Math. Soc.*, 142(2):667–679, 2014.
- [2346] A. Guionnet and O. Zeitouni. Concentration of the spectral measure for large matrices. *Electron. Comm. Probab.*, 5:119–136, 2000.
- [2347] Alice Guionnet and Ofer Zeitouni. Large deviations asymptotics for spherical integrals. *J. Funct. Anal.*, 188(2):461–515, 2002.
- [2348] Alice Guionnet and Ofer Zeitouni. Addendum to: “Large deviations asymptotics for spherical integrals” [J. Funct. Anal. **188** (2002), no. 2, 461–515; mr1883414]. *J. Funct. Anal.*, 216(1):230–241, 2004.
- [2349] Alice Guionnet and Ofer Zeitouni. Support convergence in the single ring theorem. *Probab. Theory Related Fields*, 154(3-4):661–675, 2012.
- [2350] Jingjun Guo, Yaozhong Hu, and Yanping Xiao. Higher-order derivative of intersection local time for two independent fractional Brownian motions. *J. Theoret. Probab.*, 32(3):1190–1201, 2019.
- [2351] Yuhui Guo, Jian Song, and Xiaoming Song. Stochastic fractional diffusion equations with gaussian noise rough in space. *preprint arXiv:2303.11939*, March 2023.
- [2352] Xiaoqin Guo and Ofer Zeitouni. Quenched invariance principle for random walks in balanced random environment. *Probab. Theory Related Fields*, 152(1-2):207–230, 2012.
- [2353] Ori Gurel-Gurevich, Yuval Peres, and Ofer Zeitouni. Localization for controlled random walks and martingales. *Electron. Commun. Probab.*, 19:no. 24, 8, 2014.
- [2354] Peter Guttorp and Tilmann Gneiting. Studies in the history of probability and statistics. XLIX. On the Matérn correlation family. *Biometrika*, 93(4):989–995, 2006.
- [2355] I. Gyöngy and N. V. Krylov. On stochastics equations with respect to semimartingales. II. Itô formula in Banach spaces. *Stochastics*, 6(3-4):153–173, 1981/82.
- [2356] István Gyöngy, David Nualart, and Marta Sanz-Solé. Approximation and support theorems in modulus spaces. *Probab. Theory Related Fields*, 101(4):495–509, 1995.

- [2357] István Gyöngy and David Nualart. Implicit scheme for quasi-linear parabolic partial differential equations perturbed by space-time white noise. *Stochastic Process. Appl.*, 58(1):57–72, 1995.
- [2358] István Gyöngy and David Nualart. Implicit scheme for stochastic parabolic partial differential equations driven by space-time white noise. *Potential Anal.*, 7(4):725–757, 1997.
- [2359] István Gyöngy and David Nualart. On the stochastic Burgers’ equation in the real line. *Ann. Probab.*, 27(2):782–802, 1999.
- [2360] István Gyöngy and É. Pardoux. On the regularization effect of space-time white noise on quasi-linear parabolic partial differential equations. *Probab. Theory Related Fields*, 97(1-2):211–229, 1993.
- [2361] I. Gyöngy. On stochastic equations with respect to semimartingales. III. *Stochastics*, 7(4):231–254, 1982.
- [2362] István Gyöngy. Lattice approximations for stochastic quasi-linear parabolic partial differential equations driven by space-time white noise. I. *Potential Anal.*, 9(1):1–25, 1998.
- [2363] David W. Hahn and M. Necati Özisik. *Heat Conduction*. Wiley, 3rd edition, 2012.
- [2364] Martin Hairer, Martin Hutzenthaler, and Arnulf Jentzen. Loss of regularity for Kolmogorov equations. *Ann. Probab.*, 43(2):468–527, 2015.
- [2365] Martin Hairer and Massimo Iberti. Tightness of the Ising-Kac model on the two-dimensional torus. *J. Stat. Phys.*, 171(4):632–655, 2018.
- [2366] Martin Hairer, Gautam Iyer, Leonid Koralov, Alexei Novikov, and Zsolt Pajor-Gyulai. A fractional kinetic process describing the intermediate time behaviour of cellular flows. *Ann. Probab.*, 46(2):897–955, 2018.
- [2367] Martin Hairer and David Kelly. Stochastic PDEs with multiscale structure. *Electron. J. Probab.*, 17:no. 52, 38, 2012.
- [2368] Martin Hairer and David Kelly. Geometric versus non-geometric rough paths. *Ann. Inst. Henri Poincaré Probab. Stat.*, 51(1):207–251, 2015.
- [2369] Martin Hairer, Leonid Koralov, and Zsolt Pajor-Gyulai. From averaging to homogenization in cellular flows—an exact description of the transition. *Ann. Inst. Henri Poincaré Probab. Stat.*, 52(4):1592–1613, 2016.
- [2370] Martin Hairer and Cyril Labbé. A simple construction of the continuum parabolic Anderson model on  $\mathbf{R}^2$ . *Electron. Commun. Probab.*, 20:no. 43, 11, 2015.
- [2371] Martin Hairer and Cyril Labbé. The reconstruction theorem in Besov spaces. *J. Funct. Anal.*, 273(8):2578–2618, 2017.
- [2372] Martin Hairer and Cyril Labbé. Multiplicative stochastic heat equations on the whole space. *J. Eur. Math. Soc. (JEMS)*, 20(4):1005–1054, 2018.
- [2373] Martin Hairer and Xue-Mei Li. Averaging dynamics driven by fractional Brownian motion. *Ann. Probab.*, 48(4):1826–1860, 2020.
- [2374] Martin Hairer, Jan Maas, and Hendrik Weber. Approximating rough stochastic PDEs. *Comm. Pure Appl. Math.*, 67(5):776–870, 2014.
- [2375] Martin Hairer and Jan Maas. A spatial version of the Itô-Stratonovich correction. *Ann. Probab.*, 40(4):1675–1714, 2012.



- [2376] Martin Hairer and Andrew J. Majda. A simple framework to justify linear response theory. *Nonlinearity*, 23(4):909–922, 2010.
- [2377] Martin Hairer and Charles Manson. Periodic homogenization with an interface. In *Progress in analysis and its applications*, pages 410–416. World Sci. Publ., Hackensack, NJ, 2010.
- [2378] Martin Hairer and Charles Manson. Periodic homogenization with an interface: the one-dimensional case. *Stochastic Process. Appl.*, 120(8):1589–1605, 2010.
- [2379] Martin Hairer and Charles Manson. Periodic homogenization with an interface: the multi-dimensional case. *Ann. Probab.*, 39(2):648–682, 2011.
- [2380] M. Hairer and K. Matetski. Optimal rate of convergence for stochastic Burgers-type equations. *Stoch. Partial Differ. Equ. Anal. Comput.*, 4(2):402–437, 2016.
- [2381] M. Hairer and K. Matetski. Discretisations of rough stochastic PDEs. *Ann. Probab.*, 46(3):1651–1709, 2018.
- [2382] Martin Hairer, Jonathan C. Mattingly, and Étienne Pardoux. Malliavin calculus for highly degenerate 2D stochastic Navier-Stokes equations. *C. R. Math. Acad. Sci. Paris*, 339(11):793–796, 2004.
- [2383] M. Hairer, J. C. Mattingly, and M. Scheutzow. Asymptotic coupling and a general form of Harris’ theorem with applications to stochastic delay equations. *Probab. Theory Related Fields*, 149(1-2):223–259, 2011.
- [2384] Martin Hairer and Jonathan C. Mattingly. Ergodic properties of highly degenerate 2D stochastic Navier-Stokes equations. *C. R. Math. Acad. Sci. Paris*, 339(12):879–882, 2004.
- [2385] Martin Hairer and Jonathan C. Mattingly. Ergodicity of the 2D Navier-Stokes equations with degenerate stochastic forcing. *Ann. of Math. (2)*, 164(3):993–1032, 2006.
- [2386] Martin Hairer and Jonathan C. Mattingly. Spectral gaps in Wasserstein distances and the 2D stochastic Navier-Stokes equations. *Ann. Probab.*, 36(6):2050–2091, 2008.
- [2387] Martin Hairer and Jonathan C. Mattingly. Slow energy dissipation in anharmonic oscillator chains. *Comm. Pure Appl. Math.*, 62(8):999–1032, 2009.
- [2388] Martin Hairer and Jonathan C. Mattingly. A theory of hypoellipticity and unique ergodicity for semilinear stochastic PDEs. *Electron. J. Probab.*, 16:no. 23, 658–738, 2011.
- [2389] Martin Hairer and Jonathan C. Mattingly. Yet another look at Harris’ ergodic theorem for Markov chains. In *Seminar on Stochastic Analysis, Random Fields and Applications VI*, volume 63 of *Progr. Probab.*, pages 109–117. Birkhäuser/Springer Basel AG, Basel, 2011.
- [2390] M. Hairer and J. Mattingly. The strong Feller property for singular stochastic PDEs. *Ann. Inst. Henri Poincaré Probab. Stat.*, 54(3):1314–1340, 2018.
- [2391] M. Hairer and A. Ohashi. Ergodic theory for SDEs with extrinsic memory. *Ann. Probab.*, 35(5):1950–1977, 2007.
- [2392] Martin Hairer, Etienne Pardoux, and Andrey Piatnitski. Random homogenisation of a highly oscillatory singular potential. *Stoch. Partial Differ. Equ. Anal. Comput.*, 1(4):571–605, 2013.
- [2393] Martin Hairer and Etienne Pardoux. Homogenization of periodic linear degenerate PDEs. *J. Funct. Anal.*, 255(9):2462–2487, 2008.
- [2394] Martin Hairer and Étienne Pardoux. A Wong-Zakai theorem for stochastic PDEs. *J. Math. Soc. Japan*, 67(4):1551–1604, 2015.

- [2395] Martin Hairer and Étienne Pardoux. Fluctuations around a homogenised semilinear random PDE. *Arch. Ration. Mech. Anal.*, 239(1):151–217, 2021.
- [2396] M. Hairer and G. A. Pavliotis. From ballistic to diffusive behavior in periodic potentials. *J. Stat. Phys.*, 131(1):175–202, 2008.
- [2397] M. Hairer and N. S. Pillai. Ergodicity of hypoelliptic SDEs driven by fractional Brownian motion. *Ann. Inst. Henri Poincaré Probab. Stat.*, 47(2):601–628, 2011.
- [2398] Martin Hairer and Natesh S. Pillai. Regularity of laws and ergodicity of hypoelliptic SDEs driven by rough paths. *Ann. Probab.*, 41(4):2544–2598, 2013.
- [2399] Martin Hairer and Jeremy Quastel. A class of growth models rescaling to KPZ. *Forum Math. Pi*, 6:e3, 112, 2018.
- [2400] Martin Hairer, Marc D. Ryser, and Hendrik Weber. Triviality of the 2D stochastic Allen-Cahn equation. *Electron. J. Probab.*, 17:no. 39, 14, 2012.
- [2401] Martin Hairer and Hao Shen. The dynamical sine-Gordon model. *Comm. Math. Phys.*, 341(3):933–989, 2016.
- [2402] Martin Hairer and Hao Shen. A central limit theorem for the KPZ equation. *Ann. Probab.*, 45(6B):4167–4221, 2017.
- [2403] M. Hairer, A. M. Stuart, J. Voss, and P. Wiberg. Analysis of SPDEs arising in path sampling. I. The Gaussian case. *Commun. Math. Sci.*, 3(4):587–603, 2005.
- [2404] M. Hairer, A. M. Stuart, and J. Voss. Analysis of SPDEs arising in path sampling. II. The nonlinear case. *Ann. Appl. Probab.*, 17(5-6):1657–1706, 2007.
- [2405] Martin Hairer, Andrew Stuart, and Jochen Voß. Sampling conditioned diffusions. In *Trends in stochastic analysis*, volume 353 of *London Math. Soc. Lecture Note Ser.*, pages 159–185. Cambridge Univ. Press, Cambridge, 2009.
- [2406] Martin Hairer, Andrew M. Stuart, and Jochen Voss. Sampling conditioned hypoelliptic diffusions. *Ann. Appl. Probab.*, 21(2):669–698, 2011.
- [2407] M. Hairer, A. Stuart, and J. Voss. Signal processing problems on function space: Bayesian formulation, stochastic PDEs and effective MCMC methods. In *The Oxford handbook of nonlinear filtering*, pages 833–873. Oxford Univ. Press, Oxford, 2011.
- [2408] Martin Hairer, Andrew M. Stuart, and Sebastian J. Vollmer. Spectral gaps for a Metropolis-Hastings algorithm in infinite dimensions. *Ann. Appl. Probab.*, 24(6):2455–2490, 2014.
- [2409] Martin Hairer and Jochen Voss. Approximations to the stochastic Burgers equation. *J. Nonlinear Sci.*, 21(6):897–920, 2011.
- [2410] Martin Hairer and Jonathan Weare. Improved diffusion Monte Carlo. *Comm. Pure Appl. Math.*, 67(12):1995–2021, 2014.
- [2411] Martin Hairer and Jonathan Weare. The Brownian fan. *Comm. Pure Appl. Math.*, 68(1):1–60, 2015.
- [2412] Martin Hairer and Jonathan Weare. Corrigendum: Improved diffusion Monte Carlo [MR3272366]. *Comm. Pure Appl. Math.*, 68(8):1285–1286, 2015.
- [2413] Martin Hairer and Hendrik Weber. Erratum to: Rough Burgers-like equations with multiplicative noise [mr3010394]. *Probab. Theory Related Fields*, 157(3-4):1011–1013, 2013.
- [2414] Martin Hairer and Hendrik Weber. Rough Burgers-like equations with multiplicative noise. *Probab. Theory Related Fields*, 155(1-2):71–126, 2013.

- [2415] Martin Hairer and Hendrik Weber. Large deviations for white-noise driven, nonlinear stochastic PDEs in two and three dimensions. *Ann. Fac. Sci. Toulouse Math. (6)*, 24(1):55–92, 2015.
- [2416] Martin Hairer and Weijun Xu. Large-scale behavior of three-dimensional continuous phase coexistence models. *Comm. Pure Appl. Math.*, 71(4):688–746, 2018.
- [2417] Martin Hairer and Weijun Xu. Large scale limit of interface fluctuation models. *Ann. Probab.*, 47(6):3478–3550, 2019.
- [2418] Martin Hairer. Coupling stochastic PDEs. In *XIVth International Congress on Mathematical Physics*, pages 281–289. World Sci. Publ., Hackensack, NJ, 2005.
- [2419] Martin Hairer. Ergodicity of stochastic differential equations driven by fractional Brownian motion. *Ann. Probab.*, 33(2):703–758, 2005.
- [2420] Martin Hairer. Ergodic properties of a class of non-Markovian processes. In *Trends in stochastic analysis*, volume 353 of *London Math. Soc. Lecture Note Ser.*, pages 65–98. Cambridge Univ. Press, Cambridge, 2009.
- [2421] Martin Hairer. How hot can a heat bath get? *Comm. Math. Phys.*, 292(1):131–177, 2009.
- [2422] Martin Hairer. Hypocoercivity in infinite dimensions. In *Progress in analysis and its applications*, pages 479–484. World Sci. Publ., Hackensack, NJ, 2010.
- [2423] Martin Hairer. On Malliavin’s proof of Hörmander’s theorem. *Bull. Sci. Math.*, 135(6-7):650–666, 2011.
- [2424] M. Hairer. Rough stochastic PDEs. *Comm. Pure Appl. Math.*, 64(11):1547–1585, 2011.
- [2425] Martin Hairer. Singular perturbations to semilinear stochastic heat equations. *Probab. Theory Related Fields*, 152(1-2):265–297, 2012.
- [2426] Martin Hairer. Solving the KPZ equation. *Ann. of Math. (2)*, 178(2):559–664, 2013.
- [2427] Martin Hairer. Singular stochastic PDEs. In *Proceedings of the International Congress of Mathematicians—Seoul 2014. Vol. IV*, pages 49–73. Kyung Moon Sa, Seoul, 2014.
- [2428] Martin Hairer. Singular stochastic PDEs. In *Proceedings of the International Congress of Mathematicians—Seoul 2014. Vol. 1*, pages 685–709. Kyung Moon Sa, Seoul, 2014.
- [2429] M. Hairer. Solving the KPZ equation. In *XVIIth International Congress on Mathematical Physics*, page 419. World Sci. Publ., Hackensack, NJ, 2014.
- [2430] M. Hairer. A theory of regularity structures. *Invent. Math.*, 198(2):269–504, 2014.
- [2431] Martin Hairer. Introduction to regularity structures. *Braz. J. Probab. Stat.*, 29(2):175–210, 2015.
- [2432] Martin Hairer. Regularity structures and the dynamical  $\Phi_3^4$  model. In *Current developments in mathematics 2014*, pages 1–49. Int. Press, Somerville, MA, 2016.
- [2433] Martin Hairer. An analyst’s take on the BPHZ theorem. In *Computation and combinatorics in dynamics, stochastics and control*, volume 13 of *Abel Symp.*, pages 429–476. Springer, Cham, 2018.
- [2434] Martin Hairer. Renormalisation of parabolic stochastic PDEs. *Jpn. J. Math.*, 13(2):187–233, 2018.
- [2435] Piotr Hajłasz, Pekka Koskela, and Heli Tuominen. Sobolev embeddings, extensions and measure density condition. *J. Funct. Anal.*, 254(5):1217–1234, 2008.

- [2436] Bruce Hajek. Mean stochastic comparison of diffusions. *Z. Wahrsch. Verw. Gebiete*, 68(3):315–329, 1985.
- [2437] Bertrand I. Halperin. Green’s functions for a particle in a one-dimensional random potential. *Phys. Rev. (2)*, 139:A104–A117, 1965.
- [2438] Timothy Halpin-Healy and Yi-Cheng Zhang. Kinetic roughening phenomena, stochastic growth, directed polymers and all that. aspects of multidisciplinary statistical mechanics. *Phys. Rep.*, 254(4):215–414, 1995.
- [2439] Thomas C. Halsey, Katsuya Honda, and Bertrand Duplantier. Multifractal dimensions for branched growth. *J. Statist. Phys.*, 85(5-6):681–743, 1996.
- [2440] B. M. Hambly and T. Kumagai. Asymptotics for the spectral and walk dimension as fractals approach Euclidean space. *Fractals*, 10(4):403–412, 2002.
- [2441] J. M. Hammersley and D. J. A. Welsh. Further results on the rate of convergence to the connective constant of the hypercubical lattice. *Quart. J. Math. Oxford Ser. (2)*, 13:108–110, 1962.
- [2442] J. M. Hammersley. Generalization of the fundamental theorem on sub-additive functions. *Proc. Cambridge Philos. Soc.*, 58:235–238, 1962.
- [2443] Yuecai Han, Yaozhong Hu, and Jian Song. Maximum principle for general controlled systems driven by fractional Brownian motions. *Appl. Math. Optim.*, 67(2):279–322, 2013.
- [2444] Zheng Han, Yaozhong Hu, and Chihoon Lee. Optimal pricing barriers in a regulated market using reflected diffusion processes. *Quant. Finance*, 16(4):639–647, 2016.
- [2445] Zheng Han, Yaozhong Hu, and Chihoon Lee. On pricing barrier control in a regime-switching regulated market. *Quant. Finance*, 19(3):491–499, 2019.
- [2446] Mark S Handcock and Michael L Stein. A bayesian analysis of kriging. *Technometrics*, 35(4):403–410, 1993.
- [2447] Mark S. Handcock and James R. Wallis. An approach to statistical spatial-temporal modeling of meteorological fields. *J. Amer. Statist. Assoc.*, 89(426):368–390, 1994. With comments and a rejoinder by Handcock.
- [2448] Takashi Hara and Gordon Slade. The scaling limit of the incipient infinite cluster in high-dimensional percolation. II. Integrated super-Brownian excursion. volume 41, pages 1244–1293. 2000. Probabilistic techniques in equilibrium and nonequilibrium statistical physics.
- [2449] Takashi Hara and Gordon Slade. The scaling limit of the incipient infinite cluster in high-dimensional percolation. I. Critical exponents. *J. Statist. Phys.*, 99(5-6):1075–1168, 2000.
- [2450] Takashi Hara and Gordon Slade. Critical behaviour of self-avoiding walk in five or more dimensions. *Bull. Amer. Math. Soc. (N.S.)*, 25(2):417–423, 1991.
- [2451] Takashi Hara and Gordon Slade. Self-avoiding walk in five or more dimensions. I. The critical behaviour. *Comm. Math. Phys.*, 147(1):101–136, 1992.
- [2452] Takashi Hara and Hal Tasaki. A rigorous control of logarithmic corrections in four-dimensional  $\phi^4$  spin systems. II. Critical behavior of susceptibility and correlation length. *J. Statist. Phys.*, 47(1-2):99–121, 1987.
- [2453] Fabian A. Harang, Samy Tindel, and Xiaohua Wang. Volterra equations driven by rough signals 2: Higher-order expansions. *Stoch. Dyn.*, 23(1):Paper No. 2350002, 50, 2023.
- [2454] Fabian A. Harang and Samy Tindel. Volterra equations driven by rough signals. *Stochastic Process. Appl.*, 142:34–78, 2021.

- [2455] Alain Haraux. *Nonlinear evolution equations—global behavior of solutions*, volume 841 of *Lecture Notes in Mathematics*. Springer-Verlag, Berlin-New York, 1981.
- [2456] El Mehdi Haress and Yaozhong Hu. Estimation of all parameters in the fractional Ornstein-Uhlenbeck model under discrete observations. *Stat. Inference Stoch. Process.*, 24(2):327–351, 2021.
- [2457] J. Harnad, C. A. Tracy, and H. Widom. Hamiltonian structure of equations appearing in random matrices. In *Low-dimensional topology and quantum field theory (Cambridge, 1992)*, volume 315 of *NATO Adv. Sci. Inst. Ser. B: Phys.*, pages 231–245. Plenum, New York, 1993.
- [2458] Daniel Harnett, Arturo Jaramillo, and David Nualart. Symmetric stochastic integrals with respect to a class of self-similar Gaussian processes. *J. Theoret. Probab.*, 32(3):1105–1144, 2019.
- [2459] Daniel Harnett and David Nualart. Weak convergence of the Stratonovich integral with respect to a class of Gaussian processes. *Stochastic Process. Appl.*, 122(10):3460–3505, 2012.
- [2460] Daniel Harnett and David Nualart. Central limit theorem for a Stratonovich integral with Malliavin calculus. *Ann. Probab.*, 41(4):2820–2879, 2013.
- [2461] Daniel Harnett and David Nualart. Central limit theorem for an iterated integral with respect to fBm with  $H > 1/2$ . *Stochastics*, 86(2):187–202, 2014.
- [2462] Daniel Harnett and David Nualart. On Simpson’s rule and fractional Brownian motion with  $H = 1/10$ . *J. Theoret. Probab.*, 28(4):1651–1688, 2015.
- [2463] Daniel Harnett and David Nualart. Decomposition and limit theorems for a class of self-similar Gaussian processes. In *Stochastic analysis and related topics*, volume 72 of *Progr. Probab.*, pages 99–116. Birkhäuser/Springer, Cham, 2017.
- [2464] Daniel Harnett and David Nualart. Central limit theorem for functionals of a generalized self-similar Gaussian process. *Stochastic Process. Appl.*, 128(2):404–425, 2018.
- [2465] T. E. Harris. A lower bound for the critical probability in a certain percolation process. *Proc. Cambridge Philos. Soc.*, 56:13–20, 1960.
- [2466] H. J. Haubold, A. M. Mathai, and R. K. Saxena. Mittag-Leffler functions and their applications. *J. Appl. Math.*, pages Art. ID 298628, 51, 2011.
- [2467] Erika Hausenblas and Jan Seidler. Stochastic convolutions driven by martingales: maximal inequalities and exponential integrability. *Stoch. Anal. Appl.*, 26(1):98–119, 2008.
- [2468] John Hawkes. Potential theory of Lévy processes. *Proc. London Math. Soc. (3)*, 38(2):335–352, 1979.
- [2469] John Hawkes. Some geometric aspects of potential theory. In *Stochastic analysis and applications (Swansea, 1983)*, volume 1095 of *Lecture Notes in Math.*, pages 130–154. Springer, Berlin, 1984.
- [2470] Kantaro Hayakawa. On nonexistence of global solutions of some semilinear parabolic differential equations. *Proc. Japan Acad.*, 49:503–505, 1973.
- [2471] Lars Inge Hedberg. Spectral synthesis and stability in Sobolev spaces. In *Euclidean harmonic analysis (Proc. Sem., Univ. Maryland, College Park, Md., 1979)*, volume 779 of *Lecture Notes in Math.*, pages 73–103. Springer, Berlin, 1980.
- [2472] Lars Inge Hedberg. Spectral synthesis in Sobolev spaces, and uniqueness of solutions of the Dirichlet problem. *Acta Math.*, 147(3-4):237–264, 1981.

- [2473] Joseph Helfer and Daniel T. Wise. A note on maxima in random walks. *Electron. J. Combin.*, 23(1):Paper 1.17, 10, 2016.
- [2474] R. J. Henderson and S. G. Rajeev. Renormalized contact potential in two dimensions. *J. Math. Phys.*, 39(2):749–759, 1998.
- [2475] Malte Henkel. *Conformal invariance and critical phenomena*. Texts and Monographs in Physics. Springer-Verlag, Berlin, 1999.
- [2476] Antoine Henrot and Michel Pierre. *Variation et optimisation de formes*, volume 48 of *Mathématiques & Applications (Berlin) [Mathematics & Applications]*. Springer, Berlin, 2005. Une analyse géométrique. [A geometric analysis].
- [2477] Daniel Henry. *Geometric theory of semilinear parabolic equations*, volume 840 of *Lecture Notes in Mathematics*. Springer-Verlag, Berlin-New York, 1981.
- [2478] Daniel B. Henry. Some infinite-dimensional Morse-Smale systems defined by parabolic partial differential equations. *J. Differential Equations*, 59(2):165–205, 1985.
- [2479] Randall Herrell, Renming Song, Dongsheng Wu, and Yimin Xiao. Sharp space-time regularity of the solution to stochastic heat equation driven by fractional-colored noise. *Stoch. Anal. Appl.*, 38(4):747–768, 2020.
- [2480] M. A. Herrero and J. J. L. Velázquez. Approaching an extinction point in one-dimensional semilinear heat equations with strong absorption. *J. Math. Anal. Appl.*, 170(2):353–381, 1992.
- [2481] M. A. Herrero and J. J. L. Velázquez. Blow-up behaviour of one-dimensional semilinear parabolic equations. *Ann. Inst. H. Poincaré C Anal. Non Linéaire*, 10(2):131–189, 1993.
- [2482] Miguel A. Herrero and Juan J. L. Velázquez. Explosion de solutions d’équations paraboliques semilinéaires supercritiques. *C. R. Acad. Sci. Paris Sér. I Math.*, 319(2):141–145, 1994.
- [2483] Miguel A. Herrero and Juan J. L. Velázquez. Singularity formation in the one-dimensional supercooled Stefan problem. *European J. Appl. Math.*, 7(2):119–150, 1996.
- [2484] Marion Hesse and Andreas E. Kyprianou. The mass of super-Brownian motion upon exiting balls and Sheu’s compact support condition. *Stochastic Process. Appl.*, 124(6):2003–2022, 2014.
- [2485] Markus Heydenreich, Remco van der Hofstad, and Akira Sakai. Mean-field behavior for long- and finite range Ising model, percolation and self-avoiding walk. *J. Stat. Phys.*, 132(6):1001–1049, 2008.
- [2486] Markus Heydenreich and Remco van der Hofstad. *Progress in high-dimensional percolation and random graphs*. CRM Short Courses. Springer, Cham; Centre de Recherches Mathématiques, Montreal, QC, 2017.
- [2487] Markus Heydenreich. Long-range self-avoiding walk converges to  $\alpha$ -stable processes. *Ann. Inst. Henri Poincaré Probab. Stat.*, 47(1):20–42, 2011.
- [2488] Takeyuki Hida, Hui-Hsiung Kuo, Jürgen Potthoff, and Ludwig Streit. *White noise*, volume 253 of *Mathematics and its Applications*. Kluwer Academic Publishers Group, Dordrecht, 1993. An infinite-dimensional calculus.
- [2489] R. Hilfer. *Applications of fractional calculus in physics*. World Scientific Publishing Co., Inc., River Edge, NJ, 2000.
- [2490] Adrián Hinojosa-Calleja and Marta Sanz-Solé. Anisotropic Gaussian random fields: criteria for hitting probabilities and applications. *Stoch. Partial Differ. Equ. Anal. Comput.*, 9(4):984–1030, 2021.

- [2491] Paweł Hitzchenko. On the behavior of the constant in a decoupling inequality for martingales. *Proc. Amer. Math. Soc.*, 121(1):253–258, 1994.
- [2492] Kenneth J. Hochberg. A signed measure on path space related to Wiener measure. *Ann. Probab.*, 6(3):433–458, 1978.
- [2493] Wassily Hoeffding. Probability inequalities for sums of bounded random variables. *J. Amer. Statist. Assoc.*, 58:13–30, 1963.
- [2494] Linard Hoessly, Carsten Wiuf, and Panqiu Xia. On the sum of chemical reactions. *preprint arXiv:2105.04353*, May 2021.
- [2495] Linard Hoessly, Carsten Wiuf, and Panqiu Xia. On the sum of chemical reactions. *Eur. J. Appl. Math.*, page 1–23, 2022.
- [2496] Martina Hofmanová and Tusheng Zhang. Quasilinear parabolic stochastic partial differential equations: existence, uniqueness. *Stochastic Process. Appl.*, 127(10):3354–3371, 2017.
- [2497] R. van der Hofstad, F. den Hollander, and W. König. Central limit theorem for the Edwards model. *Ann. Probab.*, 25(2):573–597, 1997.
- [2498] Remco van der Hofstad, Wolfgang König, and Peter Mörters. The universality classes in the parabolic Anderson model. *Comm. Math. Phys.*, 267(2):307–353, 2006.
- [2499] Remco van der Hofstad and Wolfgang König. A survey of one-dimensional random polymers. *J. Statist. Phys.*, 103(5-6):915–944, 2001.
- [2500] Remco van der Hofstad, Peter Mörters, and Nadia Sidorova. Weak and almost sure limits for the parabolic Anderson model with heavy tailed potentials. *Ann. Appl. Probab.*, 18(6):2450–2494, 2008.
- [2501] Helge Holden and Yaozhong Hu. Finite difference approximation of the pressure equation for fluid flow in a stochastic medium—a probabilistic approach. *Comm. Partial Differential Equations*, 21(9-10):1367–1388, 1996.
- [2502] Helge Holden, Bernt Øksendal, Jan Ubøe, and Tusheng Zhang. *Stochastic partial differential equations*. Universitext. Springer, New York, second edition, 2010. A modeling, white noise functional approach.
- [2503] Helge Holden, Bernt Øksendal, Jan Ubøe, and Tusheng Zhang. *Stochastic partial differential equations*. Probability and its Applications. Birkhäuser Boston, Inc., Boston, MA, 1996. A modeling, white noise functional approach.
- [2504] Frank den Hollander, Wolfgang König, and Renato S. dos Santos. The parabolic Anderson model on a Galton-Watson tree. In *In and out of equilibrium 3. Celebrating Vladas Sidoravicius*, volume 77 of *Progr. Probab.*, pages 591–635. Birkhäuser/Springer, Cham, [2021] ©2021.
- [2505] Frank den Hollander, Stanislav A. Molchanov, and Ofer Zeitouni. *Random media at Saint-Flour*. Probability at Saint-Flour. Springer, Heidelberg, 2012. Reprints of lectures from the Annual Saint-Flour Probability Summer School held in Saint-Flour.
- [2506] Frank den Hollander. *Random polymers*, volume 1974 of *Lecture Notes in Mathematics*. Springer-Verlag, Berlin, 2009. Lectures from the 37th Probability Summer School held in Saint-Flour, 2007.
- [2507] Frank den Hollander. Laudatio: the mathematical work of Jürgen Gärtner. In *Probability in complex physical systems*, volume 11 of *Springer Proc. Math.*, pages 1–10. Springer, Heidelberg, 2012.

- [2508] Jieliang Hong, Leonid Mytnik, and Edwin Perkins. On the topological boundary of the range of super-Brownian motion. *Ann. Probab.*, 48(3):1168–1201, 2020.
- [2509] Wenming Hong and Ofer Zeitouni. A quenched CLT for super-Brownian motion with random immigration. *J. Theoret. Probab.*, 20(4):807–820, 2007.
- [2510] Jieliang Hong. Renormalization of local times of super-Brownian motion. *Electron. J. Probab.*, 23:Paper No. 109, 45, 2018.
- [2511] Jieliang Hong. Improved Hölder continuity near the boundary of one-dimensional super-Brownian motion. *Electron. Commun. Probab.*, 24:Paper No. 28, 12, 2019.
- [2512] Eberhard Hopf. The partial differential equation  $u_t + uu_x = \mu u_{xx}$ . *Comm. Pure Appl. Math.*, 3:201–230, 1950.
- [2513] Lars Hörmander. Hypoelliptic second order differential equations. *Acta Math.*, 119:147–171, 1967.
- [2514] Lajos Horváth and Davar Khoshnevisan. Weight functions and pathwise local central limit theorems. *Stochastic Process. Appl.*, 59(1):105–123, 1995.
- [2515] L. Horváth and D. Khoshnevisan. A strong approximation for logarithmic averages. *Studia Sci. Math. Hungar.*, 31(1-3):187–196, 1996.
- [2516] Christian Houdré and José Villa. An example of infinite dimensional quasi-helix. In *Stochastic models (Mexico City, 2002)*, volume 336 of *Contemp. Math.*, pages 195–201. Amer. Math. Soc., Providence, RI, 2003.
- [2517] J. Ben Hough, Manjunath Krishnapur, Yuval Peres, and Bálint Virág. Determinantal processes and independence. *Probab. Surv.*, 3:206–229, 2006.
- [2518] S. D. Howison, A. A. Lacey, and J. R. Ockendon. Hele-Shaw free-boundary problems with suction. *Quart. J. Mech. Appl. Math.*, 41(2):183–193, 1988.
- [2519] S. D. Howison, J. R. Ockendon, and A. A. Lacey. Singularity development in moving-boundary problems. *Quart. J. Mech. Appl. Math.*, 38(3):343–360, 1985.
- [2520] S. D. Howison and S. Richardson. Cusp development in free boundaries, and two-dimensional slow viscous flows. volume 6, pages 441–454. 1995. *Complex analysis and free boundary problems (St. Petersburg, 1994)*.
- [2521] S. D. Howison. Complex variable methods in Hele-Shaw moving boundary problems. *European J. Appl. Math.*, 3(3):209–224, 1992.
- [2522] Elton P. Hsu and Cheng Ouyang. Quasi-invariance of the Wiener measure on the path space over a complete Riemannian manifold. *J. Funct. Anal.*, 257(5):1379–1395, 2009.
- [2523] Yaozhong Hu, Jingyu Huang, and David Nualart. On Hölder continuity of the solution of stochastic wave equations in dimension three. *Stoch. Partial Differ. Equ. Anal. Comput.*, 2(3):353–407, 2014.
- [2524] Yaozhong Hu, Jingyu Huang, David Nualart, and Xiaobin Sun. Smoothness of the joint density for spatially homogeneous SPDEs. *J. Math. Soc. Japan*, 67(4):1605–1630, 2015.
- [2525] Yaozhong Hu, Jingyu Huang, David Nualart, and Samy Tindel. Stochastic heat equations with general multiplicative Gaussian noises: Hölder continuity and intermittency. *Electron. J. Probab.*, 20:no. 55, 50, 2015.
- [2526] Yaozhong Hu, Jingyu Huang, and David Nualart. On the intermittency front of stochastic heat equation driven by colored noises. *Electron. Commun. Probab.*, 21:Paper No. 21, 13, 2016.



- [2527] Yaozhong Hu, Jingyu Huang, Khoa Lê, David Nualart, and Samy Tindel. Stochastic heat equation with rough dependence in space. *Ann. Probab.*, 45(6B):4561–4616, 2017.
- [2528] Yaozhong Hu, Jingyu Huang, Khoa Lê, David Nualart, and Samy Tindel. Parabolic Anderson model with rough dependence in space. In *Computation and combinatorics in dynamics, stochastics and control*, volume 13 of *Abel Symp.*, pages 477–498. Springer, Cham, 2018.
- [2529] Yaozhong Hu, Maria Jolis, and Samy Tindel. On Stratonovich and Skorohod stochastic calculus for Gaussian processes. *Ann. Probab.*, 41(3A):1656–1693, 2013.
- [2530] Y. Hu, G. Kallianpur, and J. Xiong. An approximation for the Zakai equation. *Appl. Math. Optim.*, 45(1):23–44, 2002.
- [2531] Y. Hu and G. Kallianpur. Schrödinger equations with fractional Laplacians. *Appl. Math. Optim.*, 42(3):281–290, 2000.
- [2532] Y. Hu and G. Kallianpur. Exponential integrability and application to stochastic quantization. *Appl. Math. Optim.*, 37(3):295–353, 1998.
- [2533] Yueyun Hu, Davar Khoshnevisan, and Marc Wouts. Charged polymers in the attractive regime: a first-order transition from Brownian scaling to four-point localization. *J. Stat. Phys.*, 144(5):948–977, 2011.
- [2534] Yueyun Hu and Davar Khoshnevisan. Strong approximations in a charged-polymer model. *Period. Math. Hungar.*, 61(1-2):213–224, 2010.
- [2535] Yaozhong Hu, Khoa Lê, and Leonid Mytnik. Stochastic differential equation for Brox diffusion. *Stochastic Process. Appl.*, 127(7):2281–2315, 2017.
- [2536] Yaozhong Hu and Khoa Le. A multiparameter Garsia-Rodemich-Rumsey inequality and some applications. *Stochastic Process. Appl.*, 123(9):3359–3377, 2013.
- [2537] Yaozhong Hu and Khoa N. Lê. Nonlinear Young integrals via fractional calculus. In *Stochastics of environmental and financial economics—Centre of Advanced Study, Oslo, Norway, 2014–2015*, volume 138 of *Springer Proc. Math. Stat.*, pages 81–99. Springer, Cham, 2016.
- [2538] Yaozhong Hu and Khoa Lê. Nonlinear Young integrals and differential systems in Hölder media. *Trans. Amer. Math. Soc.*, 369(3):1935–2002, 2017.
- [2539] Yaozhong Hu and Khoa Lê. Joint Hölder continuity of parabolic Anderson model. *Acta Math. Sci. Ser. B (Engl. Ed.)*, 39(3):764–780, 2019.
- [2540] Yaozhong Hu and Khoa Lê. Asymptotics of the density of parabolic Anderson random fields. *Ann. Inst. Henri Poincaré Probab. Stat.*, 58(1):105–133, 2022.
- [2541] Yaozhong Hu, Chihoon Lee, Myung Hee Lee, and Jian Song. Parameter estimation for reflected Ornstein-Uhlenbeck processes with discrete observations. *Stat. Inference Stoch. Process.*, 18(3):279–291, 2015.
- [2542] Yaozhong Hu and Chihoon Lee. Drift parameter estimation for a reflected fractional Brownian motion based on its local time. *J. Appl. Probab.*, 50(2):592–597, 2013.
- [2543] Yaozhong Hu, Juan Li, and Chao Mi. BSDEs generated by fractional space-time noise and related SPDEs. *Appl. Math. Comput.*, 450:Paper No. 127979, 30, 2023.
- [2544] Yao Zhong Hu, Tom Lindstrøm, Bernt Øksendal, Jan Ubøe, and Tu Sheng Zhang. Inverse powers of white noise. In *Stochastic analysis (Ithaca, NY, 1993)*, volume 57 of *Proc. Sympos. Pure Math.*, pages 439–456. Amer. Math. Soc., Providence, RI, 1995.

- [2545] Yaozhong Hu, Yanghui Liu, and David Nualart. Rate of convergence and asymptotic error distribution of Euler approximation schemes for fractional diffusions. *Ann. Appl. Probab.*, 26(2):1147–1207, 2016.
- [2546] Yaozhong Hu, Yanghui Liu, and David Nualart. Taylor schemes for rough differential equations and fractional diffusions. *Discrete Contin. Dyn. Syst. Ser. B*, 21(9):3115–3162, 2016.
- [2547] Yaozhong Hu, Yanghui Liu, and Samy Tindel. On the necessary and sufficient conditions to solve a heat equation with general additive Gaussian noise. *Acta Math. Sci. Ser. B (Engl. Ed.)*, 39(3):669–690, 2019.
- [2548] Yaozhong Hu, Yanghui Liu, and David Nualart. Crank-Nicolson scheme for stochastic differential equations driven by fractional Brownian motions. *Ann. Appl. Probab.*, 31(1):39–83, 2021.
- [2549] Yaozhong Hu and Hongwei Long. Parameter estimation for Ornstein-Uhlenbeck processes driven by  $\alpha$ -stable Lévy motions. *Commun. Stoch. Anal.*, 1(2):175–192, 2007.
- [2550] Yaozhong Hu and Hongwei Long. Least squares estimator for Ornstein-Uhlenbeck processes driven by  $\alpha$ -stable motions. *Stochastic Process. Appl.*, 119(8):2465–2480, 2009.
- [2551] Yaozhong Hu and Hongwei Long. On the singularity of least squares estimator for mean-reverting  $\alpha$ -stable motions. *Acta Math. Sci. Ser. B (Engl. Ed.)*, 29(3):599–608, 2009.
- [2552] Yao Zhong Hu and Hong Wei Long. Symmetric integral and the approximation theorem of stochastic integral in the plane. *Acta Math. Sci. (English Ed.)*, 13(2):153–166, 1993.
- [2553] Yaozhong Hu, Fei Lu, and David Nualart. Feynman-Kac formula for the heat equation driven by fractional noise with Hurst parameter  $H < 1/2$ . *Ann. Probab.*, 40(3):1041–1068, 2012.
- [2554] Yaozhong Hu, Fei Lu, and David Nualart. Hölder continuity of the solutions for a class of nonlinear SPDE’s arising from one dimensional superprocesses. *Probab. Theory Related Fields*, 156(1-2):27–49, 2013.
- [2555] Yaozhong Hu, Fei Lu, and David Nualart. Non-degeneracy of some Sobolev pseudo-norms of fractional Brownian motion. *Electron. Commun. Probab.*, 18:no. 84, 8, 2013.
- [2556] Yaozhong Hu, Fei Lu, and David Nualart. Convergence of densities of some functionals of Gaussian processes. *J. Funct. Anal.*, 266(2):814–875, 2014.
- [2557] Ying Hu, Anis Matoussi, and Tusheng Zhang. Wong-Zakai approximations of backward doubly stochastic differential equations. *Stochastic Process. Appl.*, 125(12):4375–4404, 2015.
- [2558] Y. Z. Hu and P.-A. Meyer. Chaos de Wiener et intégrale de Feynman. In *Séminaire de Probabilités, XXII*, volume 1321 of *Lecture Notes in Math.*, pages 51–71. Springer, Berlin, 1988.
- [2559] Y. Z. Hu and P.-A. Meyer. Sur les intégrales multiples de Stratonovitch. In *Séminaire de Probabilités, XXII*, volume 1321 of *Lecture Notes in Math.*, pages 72–81. Springer, Berlin, 1988.
- [2560] Y. Z. Hu and P. A. Meyer. On the approximation of multiple Stratonovich integrals. In *Stochastic processes*, pages 141–147. Springer, New York, 1993.
- [2561] Yaozhong Hu, Salah-Eldin A. Mohammed, and Feng Yan. Discrete-time approximations of stochastic delay equations: the Milstein scheme. *Ann. Probab.*, 32(1A):265–314, 2004.
- [2562] Yaozhong Hu, David Nualart, and Jian Song. Integral representation of renormalized self-intersection local times. *J. Funct. Anal.*, 255(9):2507–2532, 2008.

- [2563] Yaozhong Hu, David Nualart, and Xiaoming Song. A singular stochastic differential equation driven by fractional Brownian motion. *Statist. Probab. Lett.*, 78(14):2075–2085, 2008.
- [2564] Yaozhong Hu, David Nualart, and Jian Song. Fractional martingales and characterization of the fractional Brownian motion. *Ann. Probab.*, 37(6):2404–2430, 2009.
- [2565] Yaozhong Hu, David Nualart, Weilin Xiao, and Weiguo Zhang. Exact maximum likelihood estimator for drift fractional Brownian motion at discrete observation. *Acta Math. Sci. Ser. B (Engl. Ed.)*, 31(5):1851–1859, 2011.
- [2566] Yaozhong Hu, David Nualart, and Jian Song. Feynman-Kac formula for heat equation driven by fractional white noise. *Ann. Probab.*, 39(1):291–326, 2011.
- [2567] Yaozhong Hu, David Nualart, and Xiaoming Song. Malliavin calculus for backward stochastic differential equations and application to numerical solutions. *Ann. Appl. Probab.*, 21(6):2379–2423, 2011.
- [2568] Yaozhong Hu, David Nualart, and Jian Song. A nonlinear stochastic heat equation: Hölder continuity and smoothness of the density of the solution. *Stochastic Process. Appl.*, 123(3):1083–1103, 2013.
- [2569] Yaozhong Hu, David Nualart, and Jian Song. The  $\frac{4}{3}$ -variation of the derivative of the self-intersection Brownian local time and related processes. *J. Theoret. Probab.*, 27(3):789–825, 2014.
- [2570] Yaozhong Hu, David Nualart, and Fangjun Xu. Central limit theorem for an additive functional of the fractional Brownian motion. *Ann. Probab.*, 42(1):168–203, 2014.
- [2571] Yaozhong Hu, David Nualart, Samy Tindel, and Fangjun Xu. Density convergence in the Breuer-Major theorem for Gaussian stationary sequences. *Bernoulli*, 21(4):2336–2350, 2015.
- [2572] Yaozhong Hu, David Nualart, and Tusheng Zhang. Large deviations for stochastic heat equation with rough dependence in space. *Bernoulli*, 24(1):354–385, 2018.
- [2573] Yaozhong Hu, David Nualart, and Hongjuan Zhou. Drift parameter estimation for nonlinear stochastic differential equations driven by fractional Brownian motion. *Stochastics*, 91(8):1067–1091, 2019.
- [2574] Yaozhong Hu, David Nualart, and Panqiu Xia. Hölder continuity of the solutions to a class of SPDE’s arising from branching particle systems in a random environment. *Electron. J. Probab.*, 24:Paper No. 105, 52, 2019.
- [2575] Yaozhong Hu, David Nualart, and Hongjuan Zhou. Parameter estimation for fractional Ornstein-Uhlenbeck processes of general Hurst parameter. *Stat. Inference Stoch. Process.*, 22(1):111–142, 2019.
- [2576] Yaozhong Hu, David Nualart, Xiaobin Sun, and Yingchao Xie. Smoothness of density for stochastic differential equations with Markovian switching. *Discrete Contin. Dyn. Syst. Ser. B*, 24(8):3615–3631, 2019.
- [2577] Yaozhong Hu, David Nualart, and Xiaoming Song. An implicit numerical scheme for a class of backward doubly stochastic differential equations. *Stochastic Process. Appl.*, 130(6):3295–3324, 2020.
- [2578] Yaozhong Hu and David Nualart. Renormalized self-intersection local time for fractional Brownian motion. *Ann. Probab.*, 33(3):948–983, 2005.
- [2579] Y. Hu and D. Nualart. Some processes associated with fractional Bessel processes. *J. Theoret. Probab.*, 18(2):377–397, 2005.

- [2580] Yaozhong Hu and David Nualart. Differential equations driven by Hölder continuous functions of order greater than  $1/2$ . In *Stochastic analysis and applications*, volume 2 of *Abel Symp.*, pages 399–413. Springer, Berlin, 2007.
- [2581] Yaozhong Hu and David Nualart. Regularity of renormalized self-intersection local time for fractional Brownian motion. *Commun. Inf. Syst.*, 7(1):21–30, 2007.
- [2582] Yaozhong Hu and David Nualart. Rough path analysis via fractional calculus. *Trans. Amer. Math. Soc.*, 361(5):2689–2718, 2009.
- [2583] Yaozhong Hu and David Nualart. Stochastic heat equation driven by fractional noise and local time. *Probab. Theory Related Fields*, 143(1-2):285–328, 2009.
- [2584] Yaozhong Hu and David Nualart. Stochastic integral representation of the  $L^2$  modulus of Brownian local time and a central limit theorem. *Electron. Commun. Probab.*, 14:529–539, 2009.
- [2585] Yaozhong Hu and David Nualart. Central limit theorem for the third moment in space of the Brownian local time increments. *Electron. Commun. Probab.*, 15:396–410, 2010.
- [2586] Yaozhong Hu and David Nualart. Parameter estimation for fractional Ornstein-Uhlenbeck processes. *Statist. Probab. Lett.*, 80(11-12):1030–1038, 2010.
- [2587] Yaozhong Hu and David Nualart. Continuity of some anticipating integral processes. *Statist. Probab. Lett.*, 37(2):203–211, 1998.
- [2588] Yaozhong Hu, Daniel Ocone, and Jian Song. Some results on backward stochastic differential equations driven by fractional Brownian motions. In *Stochastic analysis and applications to finance*, volume 13 of *Interdiscip. Math. Sci.*, pages 225–242. World Sci. Publ., Hackensack, NJ, 2012.
- [2589] Yaozhong Hu, Bernt Øksendal, and Agnès Sulem. Optimal portfolio in a fractional Black & Scholes market. In *Mathematical physics and stochastic analysis (Lisbon, 1998)*, pages 267–279. World Sci. Publ., River Edge, NJ, 2000.
- [2590] Yaozhong Hu, Bernt Øksendal, and Tusheng Zhang. Stochastic partial differential equations driven by multiparameter fractional white noise. In *Stochastic processes, physics and geometry: new interplays, II (Leipzig, 1999)*, volume 29 of *CMS Conf. Proc.*, pages 327–337. Amer. Math. Soc., Providence, RI, 2000.
- [2591] Yaozhong Hu, Bernt Øksendal, and Tusheng Zhang. Stochastic fractional potential theory. In *Papers on analysis*, volume 83 of *Rep. Univ. Jyväskylä Dep. Math. Stat.*, pages 169–180. Univ. Jyväskylä, Jyväskylä, 2001.
- [2592] Yaozhong Hu, Bernt Øksendal, and Agnès Sulem. Optimal consumption and portfolio in a Black-Scholes market driven by fractional Brownian motion. *Infin. Dimens. Anal. Quantum Probab. Relat. Top.*, 6(4):519–536, 2003.
- [2593] Yaozhong Hu, Bernt Øksendal, and Tusheng Zhang. General fractional multiparameter white noise theory and stochastic partial differential equations. *Comm. Partial Differential Equations*, 29(1-2):1–23, 2004.
- [2594] Yaozhong Hu, Bernt Øksendal, and Donna Mary Salopek. Weighted local time for fractional Brownian motion and applications to finance. *Stoch. Anal. Appl.*, 23(1):15–30, 2005.
- [2595] Yaozhong Hu, Bernt Øksendal, and Agnès Sulem. Singular mean-field control games. *Stoch. Anal. Appl.*, 35(5):823–851, 2017.
- [2596] Yaozhong Hu and Bernt Øksendal. Chaos expansion of local time of fractional Brownian motions. *Stochastic Anal. Appl.*, 20(4):815–837, 2002.

- [2597] Yaozhong Hu and Bernt Øksendal. Fractional white noise calculus and applications to finance. *Infin. Dimens. Anal. Quantum Probab. Relat. Top.*, 6(1):1–32, 2003.
- [2598] Yaozhong Hu and Bernt Øksendal. Optimal smooth portfolio selection for an insider. *J. Appl. Probab.*, 44(3):742–752, 2007.
- [2599] Yaozhong Hu and Bernt Øksendal. Optimal stopping with advanced information flow: selected examples. In *Advances in mathematics of finance*, volume 83 of *Banach Center Publ.*, pages 107–116. Polish Acad. Sci. Inst. Math., Warsaw, 2008.
- [2600] Yaozhong Hu and Bernt Øksendal. Partial information linear quadratic control for jump diffusions. *SIAM J. Control Optim.*, 47(4):1744–1761, 2008.
- [2601] Yaozhong Hu and Bernt Øksendal. Linear Volterra backward stochastic integral equations. *Stochastic Process. Appl.*, 129(2):626–633, 2019.
- [2602] Yaozhong Hu and Bernt Øksendal. Wick approximation of quasilinear stochastic differential equations. In *Stochastic analysis and related topics, V (Silivri, 1994)*, volume 38 of *Progr. Probab.*, pages 203–231. Birkhäuser Boston, Boston, MA, 1996.
- [2603] Yaozhong Hu and Bernt Øksendal. Optimal time to invest when the price processes are geometric Brownian motions. *Finance Stoch.*, 2(3):295–310, 1998.
- [2604] Yaozhong Hu and Shige Peng. Backward stochastic differential equation driven by fractional Brownian motion. *SIAM J. Control Optim.*, 48(3):1675–1700, 2009.
- [2605] Yaozhong Hu and Víctor Pérez-Abreu. On the continuity of Wiener chaos. *Bol. Soc. Mat. Mexicana (3)*, 1(2):127–135, 1995.
- [2606] Yaozhong Hu and Guanglin Rang. Identification of the point sources in some stochastic wave equations. *Abstr. Appl. Anal.*, pages Art. ID 219876, 11, 2014.
- [2607] Wenqing Hu, Michael Salins, and Konstantinos Spiliopoulos. Large deviations and averaging for systems of slow-fast stochastic reaction-diffusion equations. *Stoch. Partial Differ. Equ. Anal. Comput.*, 7(4):808–874, 2019.
- [2608] Yaozhong Hu and Neha Sharma. Ergodic estimators of double exponential Ornstein-Uhlenbeck processes. *J. Comput. Appl. Math.*, 434:Paper No. 115329, 19, 2023.
- [2609] Yueyun Hu and Zhan Shi. Minimal position and critical martingale convergence in branching random walks, and directed polymers on disordered trees. *Ann. Probab.*, 37(2):742–789, 2009.
- [2610] Yaozhong Hu and Jian Song. Parameter estimation for fractional Ornstein-Uhlenbeck processes with discrete observations. In *Malliavin calculus and stochastic analysis*, volume 34 of *Springer Proc. Math. Stat.*, pages 427–442. Springer, New York, 2013.
- [2611] Yaozhong Hu and Samy Tindel. Smooth density for some nilpotent rough differential equations. *J. Theoret. Probab.*, 26(3):722–749, 2013.
- [2612] Y. Hu, A. S. Üstünel, and M. Zakai. Tangent processes on Wiener space. *J. Funct. Anal.*, 192(1):234–270, 2002.
- [2613] Yaozhong Hu, Xiong Wang, Panqiu Xia, and Jiayu Zheng. Moment asymptotics for super-brownian motions. *preprint arXiv:2303.12994*, March 2023.
- [2614] Yaozhong Hu and Baobin Wang. Convergence rate of an approximation to multiple integral of FBM. *Acta Math. Sci. Ser. B (Engl. Ed.)*, 30(3):975–992, 2010.
- [2615] Yaozhong Hu and Xiong Wang. Intermittency properties for a large class of stochastic pdes driven by fractional space-time noises. *preprint arXiv:2109.03473, to appear in Stoch. Partial Differ. Equ. Anal. Comput.*, September 2021.

- [2616] Yaozhong Hu and Xiong Wang. Matching upper and lower moment bounds for a large class of stochastic PDEs driven by general space-time Gaussian noises. *Stoch. Partial Differ. Equ. Anal. Comput.*, 2022.
- [2617] Yaozhong Hu and Xiong Wang. Stochastic heat equation with general rough noise. *Ann. Inst. Henri Poincaré Probab. Stat.*, 58(1):379–423, 2022.
- [2618] Yaozhong Hu and Shinzo Watanabe. Donsker’s delta functions and approximation of heat kernels by the time discretization methods. *J. Math. Kyoto Univ.*, 36(3):499–518, 1996.
- [2619] Yaozhong Hu and Yuejuan Xi. Estimation of all parameters in the reflected Ornstein-Uhlenbeck process from discrete observations. *Statist. Probab. Lett.*, 174:Paper No. 109099, 8, 2021.
- [2620] Yaozhong Hu and Yuejuan Xi. Parameter estimation for threshold Ornstein-Uhlenbeck processes from discrete observations. *J. Comput. Appl. Math.*, 411:Paper No. 114264, 17, 2022.
- [2621] Yao-zhong Hu and Jia-an Yan. Wick calculus for nonlinear Gaussian functionals. *Acta Math. Appl. Sin. Engl. Ser.*, 25(3):399–414, 2009.
- [2622] Yaozhong Hu and Changli Yang. Optimal tracking for bilinear stochastic system driven by fractional Brownian motions. *J. Syst. Sci. Complex.*, 25(2):238–248, 2012.
- [2623] Yaozhong Hu and Junxi Zhang. Functional central limit theorems for stick-breaking priors. *Bayesian Anal.*, 17(4):1101–1120, 2022.
- [2624] Yaozhong Hu and Xun Yu Zhou. Stochastic control for linear systems driven by fractional noises. *SIAM J. Control Optim.*, 43(6):2245–2277, 2005.
- [2625] Yaozhong Hu. A class of SPDE driven by fractional white noise. In *Stochastic processes, physics and geometry: new interplays, II (Leipzig, 1999)*, volume 29 of *CMS Conf. Proc.*, pages 317–325. Amer. Math. Soc., Providence, RI, 2000.
- [2626] Yaozhong Hu. Multi-dimensional geometric Brownian motions, Onsager-Machlup functions, and applications to mathematical finance. *Acta Math. Sci. Ser. B (Engl. Ed.)*, 20(3):341–358, 2000.
- [2627] Yaozhong Hu. Optimal times to observe in the Kalman-Bucy models. *Stochastics Stochastics Rep.*, 69(1-2):123–140, 2000.
- [2628] Yaozhong Hu. A unified approach to several inequalities for Gaussian and diffusion measures. In *Séminaire de Probabilités, XXXIV*, volume 1729 of *Lecture Notes in Math.*, pages 329–335. Springer, Berlin, 2000.
- [2629] Y. Hu. Heat equations with fractional white noise potentials. *Appl. Math. Optim.*, 43(3):221–243, 2001.
- [2630] Yaozhong Hu. Prediction and translation of fractional Brownian motions. In *Stochastics in finite and infinite dimensions*, Trends Math., pages 153–171. Birkhäuser Boston, Boston, MA, 2001.
- [2631] Yaozhong Hu. Self-intersection local time of fractional Brownian motions—via chaos expansion. *J. Math. Kyoto Univ.*, 41(2):233–250, 2001.
- [2632] Yaozhong Hu. Chaos expansion of heat equations with white noise potentials. *Potential Anal.*, 16(1):45–66, 2002.
- [2633] Yaozhong Hu. Option pricing in a market where the volatility is driven by fractional Brownian motions. In *Recent developments in mathematical finance (Shanghai, 2001)*, pages 49–59. World Sci. Publ., River Edge, NJ, 2002.

- [2634] Yaozhong Hu. Probability structure preserving and absolute continuity. *Ann. Inst. H. Poincaré Probab. Statist.*, 38(4):557–580, 2002.
- [2635] Yaozhong Hu. Optimal consumption and portfolio in a market where the volatility is driven by fractional Brownian motion. In *Probability, finance and insurance*, pages 164–173. World Sci. Publ., River Edge, NJ, 2004.
- [2636] Yaozhong Hu. Optimization of consumption and portfolio and minimization of volatility. In *Mathematics of finance*, volume 351 of *Contemp. Math.*, pages 199–206. Amer. Math. Soc., Providence, RI, 2004.
- [2637] Yaozhong Hu. Integral transformations and anticipative calculus for fractional Brownian motions. *Mem. Amer. Math. Soc.*, 175(825):viii+127, 2005.
- [2638] Yaozhong Hu. A random transport-diffusion equation. *Acta Math. Sci. Ser. B (Engl. Ed.)*, 30(6):2033–2050, 2010.
- [2639] Yaozhong Hu. An enlargement of filtration for Brownian motion. *Acta Math. Sci. Ser. B (Engl. Ed.)*, 31(5):1671–1678, 2011.
- [2640] YaoZhong Hu. Stochastic quantization and ergodic theorem for density of diffusions. *Sci. China Math.*, 55(11):2285–2296, 2012.
- [2641] Yaozhong Hu. Multiple integrals and expansion of solutions of differential equations driven by rough paths and by fractional Brownian motions. *Stochastics*, 85(5):859–916, 2013.
- [2642] Guannan Hu. *Fractional diffusion in Gaussian noisy environment*. ProQuest LLC, Ann Arbor, MI, 2015. Thesis (Ph.D.)—University of Kansas.
- [2643] Yaozhong Hu. *Analysis on Gaussian spaces*. World Scientific Publishing Co. Pte. Ltd., Hackensack, NJ, 2017.
- [2644] Yaozhong Hu. Itô type stochastic differential equations driven by fractional Brownian motions of Hurst parameter  $H > 1/2$ . *Stochastics*, 90(5):720–761, 2018.
- [2645] Y. Hu. Schrödinger equation with Gaussian potential. *Teor. uImovir. Mat. Stat.*, (98):109–120, 2018.
- [2646] Yaozhong Hu. Preface [Special issue on stochastic partial differential equations]. *Acta Math. Sci. Ser. B (Engl. Ed.)*, 39(3):627–628, 2019.
- [2647] Yaozhong Hu. Some recent progress on stochastic heat equations. *Acta Math. Sci. Ser. B (Engl. Ed.)*, 39(3):874–914, 2019.
- [2648] Yao Zhong Hu. Stochastic analysis of the stochastic functional on the basic space. *Acta Math. Sci. (English Ed.)*, 6(1):67–74, 1986.
- [2649] Yao Zhong Hu. Un nouvel exemple de distribution de Hida. In *Séminaire de Probabilités, XXII*, volume 1321 of *Lecture Notes in Math.*, pages 82–84. Springer, Berlin, 1988.
- [2650] Yao Zhong Hu. Some notes on multiple Stratonovitch integrals. *Acta Math. Sci. (English Ed.)*, 9(4):453–462, 1989.
- [2651] Yao Zhong Hu. Calculs formels sur les EDS de Stratonovitch. In *Séminaire de Probabilités, XXIV, 1988/89*, volume 1426 of *Lecture Notes in Math.*, pages 453–460. Springer, Berlin, 1990.
- [2652] Yao Zhong Hu. Symmetric integral and canonical extension for jump process—some combinatorial results. *Acta Math. Sci. (English Ed.)*, 10(4):448–458, 1990.

- [2653] Yao Zhong Hu. *Existence de traces dans les développements en chaos de Wiener*, volume 480 of *Publication de l'Institut de Recherche Mathématique Avancée [Publication of the Institute of Advanced Mathematical Research]*. Université Louis Pasteur, Département de Mathématique, Institut de Recherche Mathématique Avancée, Strasbourg, 1992. Dissertation, Université Louis Pasteur, Strasbourg, 1992.
- [2654] Yao Zhong Hu. Une formule d'Itô pour le mouvement brownien fermionique. In *Séminaire de Probabilités, XXVI*, volume 1526 of *Lecture Notes in Math.*, pages 575–578. Springer, Berlin, 1992.
- [2655] Yao Zhong Hu. Une remarque sur l'inégalité de Hölder non commutative. In *Séminaire de Probabilités, XXVI*, volume 1526 of *Lecture Notes in Math.*, page 595. Springer, Berlin, 1992.
- [2656] Yao Zhong Hu. Série de Taylor stochastique et formule de Campbell-Hausdorff, d'après Ben Arous. In *Séminaire de Probabilités, XXVI*, volume 1526 of *Lecture Notes in Math.*, pages 579–586. Springer, Berlin, 1992.
- [2657] Yao Zhong Hu. Sur un travail de R. Carmona et D. Nualart. In *Séminaire de Probabilités, XXVI*, volume 1526 of *Lecture Notes in Math.*, pages 587–594. Springer, Berlin, 1992.
- [2658] Yao Zhong Hu. Calculation of Feynman path integral for certain central forces. In *Stochastic analysis and related topics (Oslo, 1992)*, volume 8 of *Stochastics Monogr.*, pages 161–171. Gordon and Breach, Montreux, 1993.
- [2659] Yao Zhong Hu. Hypercontractivité pour les fermions, d'après Carlen-Lieb. In *Séminaire de Probabilités, XXVII*, volume 1557 of *Lecture Notes in Math.*, pages 86–96. Springer, Berlin, 1993.
- [2660] Yao Zhong Hu. The pathwise solution for a class of quasilinear stochastic equations of evolution in Banach space. III. *Acta Math. Sci. (English Ed.)*, 13(1):13–22, 1993.
- [2661] Yao Zhong Hu. A remark on the value on zero of Brownian functional. In *Stochastic analysis and related topics (Oslo, 1992)*, volume 8 of *Stochastics Monogr.*, pages 173–175. Gordon and Breach, Montreux, 1993.
- [2662] Yao Zhong Hu. The pathwise solution for a class of quasilinear stochastic differential equation in Banach spaces. I. *Acta Math. Sci. (English Ed.)*, 14(4):461–474, 1994.
- [2663] Yao Zhong Hu. Some operator inequalities. In *Séminaire de Probabilités, XXVIII*, volume 1583 of *Lecture Notes in Math.*, pages 316–333. Springer, Berlin, 1994.
- [2664] Yao Zhong Hu. On the differentiability of functions of an operator. Addendum to: “Some operator inequalities” [in it *Séminaire de Probabilités, XXVIII*, 316–333, *Lecture Notes in Math.*, 1583, Springer, Berlin, 1994; MR1329122 (96c:47021)]. In *Séminaire de Probabilités, XXIX*, volume 1613 of *Lecture Notes in Math.*, pages 218–219. Springer, Berlin, 1995.
- [2665] Yao Zhong Hu. The pathwise solution for a class of quasilinear stochastic equations of evolution in Banach space. II. *Acta Math. Sci. (English Ed.)*, 15(3):264–274, 1995.
- [2666] Yaozhong Hu. On the self-intersection local time of Brownian motion-via chaos expansion. *Publ. Mat.*, 40(2):337–350, 1996.
- [2667] Yaozhong Hu. Semi-implicit Euler-Maruyama scheme for stiff stochastic equations. In *Stochastic analysis and related topics, V (Silivri, 1994)*, volume 38 of *Progr. Probab.*, pages 183–202. Birkhäuser Boston, Boston, MA, 1996.
- [2668] Yaozhong Hu. Strong and weak order of time discretization schemes of stochastic differential equations. In *Séminaire de Probabilités, XXX*, volume 1626 of *Lecture Notes in Math.*, pages 218–227. Springer, Berlin, 1996.



- [2669] Yaozhong Hu. Itô-Wiener chaos expansion with exact residual and correlation, variance inequalities. *J. Theoret. Probab.*, 10(4):835–848, 1997.
- [2670] Yaozhong Hu. On the positivity of the solution of a class of stochastic pressure equations. *Stochastics Stochastics Rep.*, 63(1-2):27–40, 1998.
- [2671] Yaozhong Hu. Exponential integrability of diffusion processes. In *Advances in stochastic inequalities (Atlanta, GA, 1997)*, volume 234 of *Contemp. Math.*, pages 75–84. Amer. Math. Soc., Providence, RI, 1999.
- [2672] Z. Huang, D. A. Dikin, W. Ding, Y. Qiao, X. Chen, Y. Fridman, and R. S. Ruoff. Three-dimensional representation of curved nanowires. *J. Microsc.*, 216(3):206–214, 2004.
- [2673] Jingyu Huang and Davar Khoshnevisan. On the multifractal local behavior of parabolic stochastic PDEs. *Electron. Commun. Probab.*, 22:Paper No. 49, 11, 2017.
- [2674] Jingyu Huang and Davar Khoshnevisan. Analysis of a stratified Kraichnan flow. *Electron. J. Probab.*, 25:Paper No. 122, 67, 2020.
- [2675] Guan Huang and Sergei Kuksin. On the energy transfer to high frequencies in the damped/driven nonlinear Schrödinger equation. *Stoch. Partial Differ. Equ. Anal. Comput.*, 9(4):867–891, 2021.
- [2676] Jingyu Huang, Khoa Lê, and David Nualart. Large time asymptotics for the parabolic Anderson model driven by spatially correlated noise. *Ann. Inst. Henri Poincaré Probab. Stat.*, 53(3):1305–1340, 2017.
- [2677] Jingyu Huang, Khoa Lê, and David Nualart. Large time asymptotics for the parabolic Anderson model driven by space and time correlated noise. *Stoch. Partial Differ. Equ. Anal. Comput.*, 5(4):614–651, 2017.
- [2678] Jingyu Huang and Khoa Lê. Spatial asymptotic of the stochastic heat equation with compactly supported initial data. *Stoch. Partial Differ. Equ. Anal. Comput.*, 7(3):495–539, 2019.
- [2679] Jingyu Huang, David Nualart, and Lauri Viitasaari. A central limit theorem for the stochastic heat equation. *Stochastic Process. Appl.*, 130(12):7170–7184, 2020.
- [2680] Jingyu Huang, David Nualart, Lauri Viitasaari, and Guangqu Zheng. Gaussian fluctuations for the stochastic heat equation with colored noise. *Stoch. Partial Differ. Equ. Anal. Comput.*, 8(2):402–421, 2020.
- [2681] Jingyu Huang. *Stochastic partial differential equations driven by colored noise*. ProQuest LLC, Ann Arbor, MI, 2015. Thesis (Ph.D.)—University of Kansas.
- [2682] Jingyu Huang. On stochastic heat equation with measure initial data. *Electron. Commun. Probab.*, 22:Paper No. 40, 6, 2017.
- [2683] Dirk Hundertmark. A short introduction to Anderson localization. In *Analysis and stochastics of growth processes and interface models*, pages 194–218. Oxford Univ. Press, Oxford, 2008.
- [2684] W. Hunziker and I. M. Sigal. The quantum  $N$ -body problem. *J. Math. Phys.*, 41(6):3448–3510, 2000.
- [2685] David A. Huse and Michael E. Fisher. Commensurate melting, domain walls, and dislocations. *Phys. Rev. B (3)*, 29(1):239–270, 1984.
- [2686] David A. Huse and Christopher L. Henley. Pinning and roughening of domain walls in ising systems due to random impurities. *Phys. Rev. Lett.*, 54:2708–2711, Jun 1985.
- [2687] Tom Hutchcroft. The Hammersley-Welsh bound for self-avoiding walk revisited. *Electron. Commun. Probab.*, 23:Paper No. 5, 8, 2018.

- [2688] Ildar Ibragimov and Ofer Zeitouni. On roots of random polynomials. *Trans. Amer. Math. Soc.*, 349(6):2427–2441, 1997.
- [2689] Nobuyuki Ikeda, David Nualart, and Daniel W. Stroock. *Malliavin calculus at Saint-Flour*. Probability at Saint-Flour. Springer, Heidelberg, 2012.
- [2690] Nobuyuki Ikeda and Shinzo Watanabe. *Stochastic differential equations and diffusion processes*, volume 24 of *North-Holland Mathematical Library*. North-Holland Publishing Co., Amsterdam-New York; Kodansha, Ltd., Tokyo, 1981.
- [2691] Nobuyuki Ikeda and Shinzo Watanabe. *Stochastic differential equations and diffusion processes*, volume 24 of *North-Holland Mathematical Library*. North-Holland Publishing Co., Amsterdam; Kodansha, Ltd., Tokyo, second edition, 1989.
- [2692] T. Imamura and T. Sasamoto. Fluctuations of the one-dimensional polynuclear growth model with external sources. *Nuclear Phys. B*, 699(3):503–544, 2004.
- [2693] Takashi Imamura and Tomohiro Sasamoto. Replica approach to the KPZ equation with the half Brownian motion initial condition. *J. Phys. A*, 44(38):385001, 29, 2011.
- [2694] Takashi Imamura and Tomohiro Sasamoto. Determinantal structures in the O’Connell-Yor directed random polymer model. *J. Stat. Phys.*, 163(4):675–713, 2016.
- [2695] J. Z. Imbrie and T. Spencer. Diffusion of directed polymers in a random environment. *J. Statist. Phys.*, 52(3-4):609–626, 1988.
- [2696] Zaheer Imdad and Tusheng Zhang. Pricing European options in a delay model with jumps. *Int. J. Financ. Eng.*, 1(4):1450032, 13, 2014.
- [2697] Peter Imkeller and David Nualart. Continuity of the occupation density for anticipating stochastic integral processes. *Potential Anal.*, 2(2):137–155, 1993.
- [2698] Peter Imkeller and David Nualart. Integration by parts on Wiener space and the existence of occupation densities. *Ann. Probab.*, 22(1):469–493, 1994.
- [2699] E. L. Ince. *Ordinary Differential Equations*. Dover Publications, New York, 1944.
- [2700] J. van Ísacker. Generalized harmonic analysis. In *Advances in Geophysics, Vol. 7*, pages 189–214. Academic Press, New York, 1961.
- [2701] I. Iscoe. On the supports of measure-valued critical branching Brownian motion. *Ann. Probab.*, 16(1):200–221, 1988.
- [2702] Sadao Isogami and Mitsugu Matsushita. Structural and statistical properties of self-avoiding fractional brownian motion. *J. Phys. Soc. Jpn.*, 61(5):1445–1448, 1992.
- [2703] Kiyosi Itô and Henry P. McKean, Jr. *Diffusion processes and their sample paths*. Die Grundlehren der mathematischen Wissenschaften, Band 125. Springer-Verlag, Berlin-New York, 1974. Second printing, corrected.
- [2704] Alexander R. Its, Craig A. Tracy, and Harold Widom. Random words, Toeplitz determinants, and integrable systems. I. In *Random matrix models and their applications*, volume 40 of *Math. Sci. Res. Inst. Publ.*, pages 245–258. Cambridge Univ. Press, Cambridge, 2001.
- [2705] Alexander R. Its, Craig A. Tracy, and Harold Widom. Random words, Toeplitz determinants and integrable systems. II. volume 152/153, pages 199–224. 2001. *Advances in nonlinear mathematics and science*.
- [2706] Alexander R. Its. Painlevé transcendents. In *The Oxford handbook of random matrix theory*, pages 176–197. Oxford Univ. Press, Oxford, 2011.

- [2707] Koichiro Iwata. An infinite-dimensional stochastic differential equation with state space  $C(\mathbf{R})$ . *Probab. Theory Related Fields*, 74(1):141–159, 1987.
- [2708] Saul Jacka and Roger Tribe. Comparisons for measure valued processes with interactions. *Ann. Probab.*, 31(3):1679–1712, 2003.
- [2709] Jean Jacod and Albert N. Shiryaev. *Limit theorems for stochastic processes*, volume 288 of *Grundlehren der mathematischen Wissenschaften [Fundamental Principles of Mathematical Sciences]*. Springer-Verlag, Berlin, 1987.
- [2710] Jean Jacod. *Calcul stochastique et problèmes de martingales*, volume 714 of *Lecture Notes in Mathematics*. Springer, Berlin, 1979.
- [2711] Sanjay Jain and Samir D. Mathur. World-sheet geometry and baby universes in 2D quantum gravity. *Phys. Lett. B*, 286(3-4):239–246, 1992.
- [2712] Tünde Jakab, Irina Mitrea, and Marius Mitrea. Traces of functions in Hardy and Besov spaces on Lipschitz domains with applications to compensated compactness and the theory of Hardy and Bergman type spaces. *J. Funct. Anal.*, 246(1):50–112, 2007.
- [2713] Tünde Jakab, Irina Mitrea, and Marius Mitrea. Sobolev estimates for the Green potential associated with the Robin-Laplacian in Lipschitz domains satisfying a uniform exterior ball condition. In *Sobolev spaces in mathematics. II*, volume 9 of *Int. Math. Ser. (N. Y.)*, pages 227–260. Springer, New York, 2009.
- [2714] Jacek Jakubowski and Jerzy Zabczyk. Exponential moments for HJM models with jumps. *Finance Stoch.*, 11(3):429–445, 2007.
- [2715] G. J. O. Jameson. A simple proof of Stirling’s formula for the gamma function. *Math. Gaz.*, 99(544):68–74, 2015.
- [2716] Christopher Janjigian, Firas Rassoul-Agha, and Timo Seppäläinen. Ergodicity and synchronization of the kardar-parisi-zhang equation. *preprint arXiv:2211.06779*, November 2022.
- [2717] Chris Janjigian. Large deviations of the free energy in the O’Connell-Yor polymer. *J. Stat. Phys.*, 160(4):1054–1080, 2015.
- [2718] Christopher Janjigian. Upper tail large deviations in Brownian directed percolation. *Electron. Commun. Probab.*, 24:Paper No. 45, 10, 2019.
- [2719] Svante Janson. *Gaussian Hilbert spaces*, volume 129 of *Cambridge Tracts in Mathematics*. Cambridge University Press, Cambridge, 1997.
- [2720] E. Janvresse, C. Landim, J. Quastel, and H. T. Yau. Relaxation to equilibrium of conservative dynamics. I. Zero-range processes. *Ann. Probab.*, 27(1):325–360, 1999.
- [2721] Arturo Jaramillo, Ivan Nourdin, and Giovanni Peccati. Approximation of fractional local times: zero energy and derivatives. *Ann. Appl. Probab.*, 31(5):2143–2191, 2021.
- [2722] Arturo Jaramillo and David Nualart. Asymptotic properties of the derivative of self-intersection local time of fractional Brownian motion. *Stochastic Process. Appl.*, 127(2):669–700, 2017.
- [2723] Arturo Jaramillo and David Nualart. Functional limit theorem for the self-intersection local time of the fractional Brownian motion. *Ann. Inst. Henri Poincaré Probab. Stat.*, 55(1):480–527, 2019.
- [2724] Arturo Jaramillo and David Nualart. Collision of eigenvalues for matrix-valued processes. *Random Matrices Theory Appl.*, 9(4):2030001, 26, 2020.

- [2725] David S. Jerison and Carlos E. Kenig. The Neumann problem on Lipschitz domains. *Bull. Amer. Math. Soc. (N.S.)*, 4(2):203–207, 1981.
- [2726] David Jerison and Carlos E. Kenig. The inhomogeneous Dirichlet problem in Lipschitz domains. *J. Funct. Anal.*, 130(1):161–219, 1995.
- [2727] Kurt Johansson. Shape fluctuations and random matrices. *Comm. Math. Phys.*, 209(2):437–476, 2000.
- [2728] Kurt Johansson. Transversal fluctuations for increasing subsequences on the plane. *Probab. Theory Related Fields*, 116(4):445–456, 2000.
- [2729] Kurt Johansson. Discrete polynuclear growth and determinantal processes. *Comm. Math. Phys.*, 242(1-2):277–329, 2003.
- [2730] Fritz John. *Partial differential equations*, volume 1 of *Applied Mathematical Sciences*. Springer-Verlag, New York, fourth edition, 1991.
- [2731] Maria Jolis and Marta Sanz-Solé. Integrator properties of the Skorohod integral. *Stochastics Stochastics Rep.*, 41(3):163–176, 1992.
- [2732] Maria Jolis and Marta Sanz-Solé. Doob-Meyer decomposition and integrator properties of the Wong-Zakai anticipating integral. In *Stochastic analysis and related topics (Oslo, 1992)*, volume 8 of *Stochastics Monogr.*, pages 177–201. Gordon and Breach, Montreux, 1993.
- [2733] Maria Jolis and Marta Sanz. Nonadaptive stochastic calculus. In *Proceedings of the XIVth Spanish-Portuguese Conference on Mathematics, Vol. I–III (Spanish) (Puerto de la Cruz, 1989)*, pages 891–895. Univ. La Laguna, La Laguna, 1990.
- [2734] Maria Jolis and Marta Sanz. On generalized multiple stochastic integrals and multiparameter anticipative calculus. In *Stochastic analysis and related topics, II (Sivri, 1988)*, volume 1444 of *Lecture Notes in Math.*, pages 141–182. Springer, Berlin, 1990.
- [2735] Maria Jolis. The Wiener integral with respect to second order processes with stationary increments. *J. Math. Anal. Appl.*, 366(2):607–620, 2010.
- [2736] G. Jona-Lasinio and P. K. Mitter. On the stochastic quantization of field theory. *Comm. Math. Phys.*, 101(3):409–436, 1985.
- [2737] G. Jona-Lasinio. Stochastic reaction diffusion equations and interacting particle systems. volume 55, pages 751–758. 1991. Multiscale phenomena (São Paulo, 1990).
- [2738] Owen Dafydd Jones. Transition probabilities for the simple random walk on the Sierpiński graph. *Stochastic Process. Appl.*, 61(1):45–69, 1996.
- [2739] G. S. Jordan and Robert L. Wheeler. A generalization of the Wiener-Lévy theorem applicable to some Volterra equations. *Proc. Amer. Math. Soc.*, 57(1):109–114, 1976.
- [2740] Mathew Joseph, Davar Khoshnevisan, and Carl Mueller. Strong invariance and noise-comparison principles for some parabolic stochastic PDEs. *Ann. Probab.*, 45(1):377–403, 2017.
- [2741] D. D. Joseph and T. S. Lundgren. Quasilinear Dirichlet problems driven by positive sources. *Arch. Rational Mech. Anal.*, 49:241–269, 1972/73.
- [2742] Mathew Joseph, Firas Rassoul-Agha, and Timo Seppäläinen. Independent particles in a dynamical random environment. In *Probability and analysis in interacting physical systems*, volume 283 of *Springer Proc. Math. Stat.*, pages 75–121. Springer, Cham, 2019.
- [2743] Guo Xin Ju, Jin He Tao, Zi Xin Liu, and Mian Wang. The eigenvectors of  $q$ -deformed creation operator  $a^+_q$  and their properties. *Modern Phys. Lett. A*, 10(8):669–675, 1995.

- [2744] O. Julià and D. Nualart. The distribution of a double stochastic integral with respect to two independent Brownian sheets. *Stochastics*, 25(3):171–182, 1988.
- [2745] Mark Kac. On certain Toeplitz-like matrices and their relation to the problem of lattice vibrations. *J. Stat. Phys.*, 151(5):785–795, 2013.
- [2746] Jan Kadlec. The regularity of the solution of the Poisson problem in a domain whose boundary is similar to that of a convex domain. *Czechoslovak Math. J.*, 14(89):386–393, 1964.
- [2747] J.-P. Kahane and J. Peyrière. Sur certaines martingales de Benoit Mandelbrot. *Advances in Math.*, 22(2):131–145, 1976.
- [2748] Jean-Pierre Kahane. *Some random series of functions*, volume 5 of *Cambridge Studies in Advanced Mathematics*. Cambridge University Press, Cambridge, second edition, 1985.
- [2749] Jean-Pierre Kahane. Sur le chaos multiplicatif. *Ann. Sci. Math. Québec*, 9(2):105–150, 1985.
- [2750] Jean-Pierre Kahane. Une inégalité du type de Slepian et Gordon sur les processus gaussiens. *Israel J. Math.*, 55(1):109–110, 1986.
- [2751] A. S. Kalashnikov. Some problems of the qualitative theory of second-order nonlinear degenerate parabolic equations. *Uspekhi Mat. Nauk*, 42(2(254)):135–176, 287, 1987.
- [2752] Kamran Kalbasi, Thomas S. Mountford, and Frederi G. Viens. Anderson polymer in a fractional Brownian environment: asymptotic behavior of the partition function. *J. Theoret. Probab.*, 31(3):1429–1468, 2018.
- [2753] Kamran Kalbasi and Thomas S. Mountford. Feynman-Kac representation for the parabolic Anderson model driven by fractional noise. *J. Funct. Anal.*, 269(5):1234–1263, 2015.
- [2754] Kamran Kalbasi and Thomas Mountford. On the probability distribution of the local times of diagonally operator-self-similar Gaussian fields with stationary increments. *Bernoulli*, 26(2):1504–1534, 2020.
- [2755] Olav Kallenberg and Rafał Sztencel. Some dimension-free features of vector-valued martingales. *Probab. Theory Related Fields*, 88(2):215–247, 1991.
- [2756] Olav Kallenberg. *Foundations of modern probability*. Probability and its Applications (New York). Springer-Verlag, New York, second edition, 2002.
- [2757] Gopinath Kallianpur and Jie Xiong. *Stochastic differential equations in infinite-dimensional spaces*, volume 26 of *Institute of Mathematical Statistics Lecture Notes—Monograph Series*. Institute of Mathematical Statistics, Hayward, CA, 1995. Expanded version of the lectures delivered as part of the 1993 Barrett Lectures at the University of Tennessee, Knoxville, TN, March 25–27, 1993, With a foreword by Balram S. Rajput and Jan Rosinski.
- [2758] Gopinath Kallianpur. *Stochastic filtering theory*, volume 13 of *Applications of Mathematics*. Springer-Verlag, New York-Berlin, 1980.
- [2759] Nigel Kalton, Svitlana Mayboroda, and Marius Mitrea. Interpolation of Hardy-Sobolev-Besov-Triebel-Lizorkin spaces and applications to problems in partial differential equations. In *Interpolation theory and applications*, volume 445 of *Contemp. Math.*, pages 121–177. Amer. Math. Soc., Providence, RI, 2007.
- [2760] Nigel Kalton and Marius Mitrea. Stability results on interpolation scales of quasi-Banach spaces and applications. *Trans. Amer. Math. Soc.*, 350(10):3903–3922, 1998.
- [2761] N. J. Kalton, N. T. Peck, and James W. Roberts. *An  $F$ -space sampler*, volume 89 of *London Mathematical Society Lecture Note Series*. Cambridge University Press, Cambridge, 1984.

- [2762] Alex Kamenev, Baruch Meerson, and Pavel V. Sasorov. Short-time height distribution in the one-dimensional Kardar-Parisi-Zhang equation: starting from a parabola. *Phys. Rev. E*, 94(3):032108, 9, 2016.
- [2763] S. Kamin, L. A. Peletier, and J. L. Vázquez. A nonlinear diffusion-absorption equation with unbounded initial data. In *Nonlinear diffusion equations and their equilibrium states, 3 (Gregynog, 1989)*, volume 7 of *Progr. Nonlinear Differential Equations Appl.*, pages 243–263. Birkhäuser Boston, Boston, MA, 1992.
- [2764] Eugene Kanzieper. Replica approach in random matrix theory. In *The Oxford handbook of random matrix theory*, pages 155–175. Oxford Univ. Press, Oxford, 2011.
- [2765] Stanley Kaplan. On the growth of solutions of quasi-linear parabolic equations. *Comm. Pure Appl. Math.*, 16:305–330, 1963.
- [2766] Ioannis Karatzas and Steven E. Shreve. *Brownian motion and stochastic calculus*, volume 113 of *Graduate Texts in Mathematics*. Springer-Verlag, New York, second edition, 1991.
- [2767] Anna Karczewska and Carlos Lizama. Stochastic Volterra equations driven by cylindrical Wiener process. *J. Evol. Equ.*, 7(2):373–386, 2007.
- [2768] Anna Karczewska and Jerzy Zabczyk. Regularity of solutions to stochastic Volterra equations. *Atti Accad. Naz. Lincei Cl. Sci. Fis. Mat. Natur. Rend. Lincei (9) Mat. Appl.*, 11(3):141–154 (2001), 2000.
- [2769] Anna Karczewska and Jerzy Zabczyk. Stochastic PDE’s with function-valued solutions. In *Infinite dimensional stochastic analysis (Amsterdam, 1999)*, volume 52 of *Verh. Afd. Natuurkd. 1. Reeks. K. Ned. Akad. Wet.*, pages 197–216. R. Neth. Acad. Arts Sci., Amsterdam, 2000.
- [2770] Anna Karczewska and Jerzy Zabczyk. A note on stochastic wave equations. In *Evolution equations and their applications in physical and life sciences (Bad Herrenalb, 1998)*, volume 215 of *Lecture Notes in Pure and Appl. Math.*, pages 501–511. Dekker, New York, 2001.
- [2771] Anna Karczewska. *Convolution type stochastic Volterra equations*, volume 10 of *Lecture Notes in Nonlinear Analysis*. Juliusz Schauder Center for Nonlinear Studies, Toruń, 2007.
- [2772] Mehran Kardar, Giorgio Parisi, and Yi-Cheng Zhang. Dynamic scaling of growing interfaces. *Phys. Rev. Lett.*, 56(9):889, 1986.
- [2773] Mehran Kardar and Yi-Cheng Zhang. Scaling of directed polymers in random media. *Phys. Rev. Lett.*, 58:2087–2090, May 1987.
- [2774] Mehran Kardar. Replica Bethe ansatz studies of two-dimensional interfaces with quenched random impurities. *Nuclear Phys. B*, 290(4):582–602, 1987.
- [2775] Tosio Kato. *Perturbation theory for linear operators*. Grundlehren der Mathematischen Wissenschaften, Band 132. Springer-Verlag, Berlin-New York, second edition, 1976.
- [2776] Tosio Kato. *Perturbation theory for linear operators*. Classics in Mathematics. Springer-Verlag, Berlin, 1995. Reprint of the 1980 edition.
- [2777] Yitzhak Katznelson. *An introduction to harmonic analysis*. John Wiley & Sons, Inc., New York-London-Sydney, 1968.
- [2778] Bernhard Kawohl and Robert Kersner. On degenerate diffusion with very strong absorption. *Math. Methods Appl. Sci.*, 15(7):469–477, 1992.
- [2779] Vladimir Kazakov, Ivan K. Kostov, and David Kutasov. A matrix model for the two-dimensional black hole. *Nuclear Phys. B*, 622(1-2):141–188, 2002.

- [2780] Jerry L. Kazdan and F. W. Warner. Curvature functions for compact 2-manifolds. *Ann. of Math. (2)*, 99:14–47, 1974.
- [2781] J. P. Keating and N. C. Snaith. Number theory. In *The Oxford handbook of random matrix theory*, pages 491–509. Oxford Univ. Press, Oxford, 2011.
- [2782] James P. Keener. *Principles of applied mathematics*. Perseus Books, Advanced Book Program, Cambridge, MA, revised edition, 2000. Transformation and approximation.
- [2783] J. B. Keller. On solutions of nonlinear wave equations. *Comm. Pure Appl. Math.*, 10:523–530, 1957.
- [2784] Todd Kemp, Ivan Nourdin, Giovanni Peccati, and Roland Speicher. Wigner chaos and the fourth moment. *Ann. Probab.*, 40(4):1577–1635, 2012.
- [2785] Carlos E. Kenig and Jill Pipher. The Neumann problem for elliptic equations with nonsmooth coefficients. *Invent. Math.*, 113(3):447–509, 1993.
- [2786] Carlos E. Kenig. *Harmonic analysis techniques for second order elliptic boundary value problems*, volume 83 of *CBMS Regional Conference Series in Mathematics*. Published for the Conference Board of the Mathematical Sciences, Washington, DC; by the American Mathematical Society, Providence, RI, 1994.
- [2787] Richard Kenyon. Dominos and the Gaussian free field. *Ann. Probab.*, 29(3):1128–1137, 2001.
- [2788] George Kerchev, Ivan Nourdin, Eero Saksman, and Lauri Viitasaari. Local times and sample path properties of the Rosenblatt process. *Stochastic Process. Appl.*, 131:498–522, 2021.
- [2789] János Kertész, Viktor k. Horváth, and Ferenc Weber. Self-affine rupture lines in paper sheets. *Fractals*, 01(01):67–74, 1993.
- [2790] H. Kesten and B. P. Stigum. A limit theorem for multidimensional Galton-Watson processes. *Ann. Math. Statist.*, 37:1211–1223, 1966.
- [2791] Harry Kesten. On the number of self-avoiding walks. II. *J. Mathematical Phys.*, 5:1128–1137, 1964.
- [2792] J. Kevorkian. *Partial differential equations*, volume 35 of *Texts in Applied Mathematics*. Springer-Verlag, New York, second edition, 2000. Analytical solution techniques.
- [2793] Rafail Khasminskii and Ofer Zeitouni. Asymptotic filtering for finite state Markov chains. *Stochastic Process. Appl.*, 63(1):1–10, 1996.
- [2794] Rafail Khasminskii. *Stochastic stability of differential equations*, volume 66 of *Stochastic Modelling and Applied Probability*. Springer, Heidelberg, second edition, 2012. With contributions by G. N. Milstein and M. B. Nevelson.
- [2795] Boris A. Khoruzhenko and Hans-Jürgen Sommers. Non-Hermitian ensembles. In *The Oxford handbook of random matrix theory*, pages 376–397. Oxford Univ. Press, Oxford, 2011.
- [2796] Davar Khoshnevisan, Kunwoo Kim, and Yimin Xiao. Intermittency and multifractality: a case study via parabolic stochastic PDEs. *Ann. Probab.*, 45(6A):3697–3751, 2017.
- [2797] Davar Khoshnevisan, Kunwoo Kim, and Yimin Xiao. A macroscopic multifractal analysis of parabolic stochastic PDEs. *Comm. Math. Phys.*, 360(1):307–346, 2018.
- [2798] Davar Khoshnevisan, Kunwoo Kim, Carl Mueller, and Shang-Yuan Shiu. Dissipation in parabolic SPDEs. *J. Stat. Phys.*, 179(2):502–534, 2020.

- [2799] Davar Khoshnevisan, Kunwoo Kim, and Carl Mueller. Dissipation in parabolic SPDEs II: Oscillation and decay of the solution. *Ann. Inst. Henri Poincaré Probab. Stat.*, 59(3):1610–1641, 2023.
- [2800] Davar Khoshnevisan, Kunwoo Kim, Carl Mueller, and Shang-Yuan Shiu. Phase analysis for a family of stochastic reaction-diffusion equations. *Electron. J. Probab.*, 28:Paper No. 101, 66, 2023.
- [2801] Davar Khoshnevisan and Kunwoo Kim. Non-linear noise excitation and intermittency under high disorder. *Proc. Amer. Math. Soc.*, 143(9):4073–4083, 2015.
- [2802] Davar Khoshnevisan and Kunwoo Kim. Nonlinear noise excitation of intermittent stochastic PDEs and the topology of LCA groups. *Ann. Probab.*, 43(4):1944–1991, 2015.
- [2803] Davar Khoshnevisan, David A. Levin, and Zhan Shi. An extreme-value analysis of the LIL for Brownian motion. *Electron. Comm. Probab.*, 10:196–206, 2005.
- [2804] Davar Khoshnevisan, David A. Levin, and Pedro J. Méndez-Hernández. On dynamical Gaussian random walks. *Ann. Probab.*, 33(4):1452–1478, 2005.
- [2805] Davar Khoshnevisan, David A. Levin, and Pedro J. Méndez-Hernández. Exceptional times and invariance for dynamical random walks. *Probab. Theory Related Fields*, 134(3):383–416, 2006.
- [2806] Davar Khoshnevisan, David A. Levin, and Pedro J. Méndez-Hernández. Capacities in Wiener space, quasi-sure lower functions, and Kolmogorov’s  $\epsilon$ -entropy. *Stochastic Process. Appl.*, 118(10):1723–1737, 2008.
- [2807] Davar Khoshnevisan, Thomas M. Lewis, and Wenbo V. Li. On the future infima of some transient processes. *Probab. Theory Related Fields*, 99(3):337–360, 1994.
- [2808] Davar Khoshnevisan, Thomas M. Lewis, and Zhan Shi. On a problem of Erdos and Taylor. *Ann. Probab.*, 24(2):761–787, 1996.
- [2809] Davar Khoshnevisan and Thomas M. Lewis. Optimal reward on a sparse tree with random edge weights. *J. Appl. Probab.*, 40(4):926–945, 2003.
- [2810] Davar Khoshnevisan and Thomas M. Lewis. The favorite point of a Poisson process. *Stochastic Process. Appl.*, 57(1):19–38, 1995.
- [2811] Davar Khoshnevisan and Thomas M. Lewis. Chung’s law of the iterated logarithm for iterated Brownian motion. *Ann. Inst. H. Poincaré Probab. Statist.*, 32(3):349–359, 1996.
- [2812] Davar Khoshnevisan and Thomas M. Lewis. The uniform modulus of continuity of iterated Brownian motion. *J. Theoret. Probab.*, 9(2):317–333, 1996.
- [2813] Davar Khoshnevisan and Thomas M. Lewis. A law of the iterated logarithm for stable processes in random scenery. *Stochastic Process. Appl.*, 74(1):89–121, 1998.
- [2814] Davar Khoshnevisan and Thomas M. Lewis. Iterated Brownian motion and its intrinsic skeletal structure. In *Seminar on Stochastic Analysis, Random Fields and Applications (Ascona, 1996)*, volume 45 of *Progr. Probab.*, pages 201–210. Birkhäuser, Basel, 1999.
- [2815] Davar Khoshnevisan and Thomas M. Lewis. Stochastic calculus for Brownian motion on a Brownian fracture. *Ann. Appl. Probab.*, 9(3):629–667, 1999.
- [2816] Davar Khoshnevisan, David Nualart, and Fei Pu. Spatial stationarity, ergodicity, and CLT for parabolic Anderson model with delta initial condition in dimension  $d \geq 1$ . *SIAM J. Math. Anal.*, 53(2):2084–2133, 2021.



- [2817] Davar Khoshnevisan and Eulalia Nualart. Level sets of the stochastic wave equation driven by a symmetric Lévy noise. *Bernoulli*, 14(4):899–925, 2008.
- [2818] D. Khoshnevisan and R. Pemantle. Sojourn times of Brownian sheet. volume 41, pages 187–194. 2000. Endre Csáki 65.
- [2819] Davar Khoshnevisan, Yuval Peres, and Yimin Xiao. Limsup random fractals. *Electron. J. Probab.*, 5:no. 5, 24, 2000.
- [2820] Davar Khoshnevisan, Pál Révész, and Zhan Shi. On the explosion of the local times along lines of Brownian sheet. *Ann. Inst. H. Poincaré Probab. Statist.*, 40(1):1–24, 2004.
- [2821] Davar Khoshnevisan, Pál Révész, and Zhan Shi. Level crossings of a two-parameter random walk. *Stochastic Process. Appl.*, 115(3):359–380, 2005.
- [2822] Davar Khoshnevisan and Pál Révész. Zeros of a two-parameter random walk. In *Dependence in probability, analysis and number theory*, pages 265–278. Kendrick Press, Heber City, UT, 2010.
- [2823] Davar Khoshnevisan, Paavo Salminen, and Marc Yor. A note on a.s. finiteness of perpetual integral functionals of diffusions. *Electron. Comm. Probab.*, 11:108–117, 2006.
- [2824] Davar Khoshnevisan and Marta Sanz-Solé. Optimal regularity of spdes with additive noise. *preprint arXiv:2208.01728*, August 2022.
- [2825] Davar Khoshnevisan and Andrey Sarantsev. Talagrand concentration inequalities for stochastic partial differential equations. *Stoch. Partial Differ. Equ. Anal. Comput.*, 7(4):679–698, 2019.
- [2826] D. Khoshnevisan, R. L. Schilling, and Y. Xiao. Packing dimension profiles and Lévy processes. *Bull. Lond. Math. Soc.*, 44(5):931–943, 2012.
- [2827] Davar Khoshnevisan and René Schilling. *From Lévy-type processes to parabolic SPDEs*. Advanced Courses in Mathematics. CRM Barcelona. Birkhäuser/Springer, Cham, 2016. Edited by Lluís Quer-Sardanyons and Frederic Utzet.
- [2828] Davar Khoshnevisan and Zhan Shi. Fast sets and points for fractional Brownian motion. In *Séminaire de Probabilités, XXXIV*, volume 1729 of *Lecture Notes in Math.*, pages 393–416. Springer, Berlin, 2000.
- [2829] Davar Khoshnevisan and Zhan Shi. Chung’s law for integrated Brownian motion. *Trans. Amer. Math. Soc.*, 350(10):4253–4264, 1998.
- [2830] Davar Khoshnevisan and Zhan Shi. Gaussian measure of a small ball and capacity in Wiener space. In *Asymptotic methods in probability and statistics (Ottawa, ON, 1997)*, pages 453–465. North-Holland, Amsterdam, 1998.
- [2831] Davar Khoshnevisan and Zhan Shi. Brownian sheet and capacity. *Ann. Probab.*, 27(3):1135–1159, 1999.
- [2832] Davar Khoshnevisan, Narn-Rueih Shieh, and Yimin Xiao. Hausdorff dimension of the contours of symmetric additive Lévy processes. *Probab. Theory Related Fields*, 140(1-2):129–167, 2008.
- [2833] Davar Khoshnevisan, Narn-Rueih Shieh, and Yimin Xiao. Erratum: Hausdorff dimension of the contours of symmetric additive Lévy processes [mr2357673]. *Probab. Theory Related Fields*, 143(3-4):665–666, 2009.
- [2834] Davar Khoshnevisan, Jason Swanson, Yimin Xiao, and Liang Zhang. Weak existence of a solution to a differential equation driven by a very rough fbm. *preprint arXiv:1309.3613*, September 2013.

- [2835] Davar Khoshnevisan and Edward Waymire. A conversation with Mu-Fa Chen. *Notices Amer. Math. Soc.*, 64(6):616–619, 2017.
- [2836] Davar Khoshnevisan, Dongsheng Wu, and Yimin Xiao. Sectorial local non-determinism and the geometry of the Brownian sheet. *Electron. J. Probab.*, 11:no. 32, 817–843, 2006.
- [2837] Davar Khoshnevisan, Yimin Xiao, and Yuquan Zhong. Local times of additive Lévy processes. *Stochastic Process. Appl.*, 104(2):193–216, 2003.
- [2838] Davar Khoshnevisan, Yimin Xiao, and Yuquan Zhong. Measuring the range of an additive Lévy process. *Ann. Probab.*, 31(2):1097–1141, 2003.
- [2839] Davar Khoshnevisan and Yimin Xiao. Images and level sets of additive random walks. In *High dimensional probability, II (Seattle, WA, 1999)*, volume 47 of *Progr. Probab.*, pages 329–345. Birkhäuser Boston, Boston, MA, 2000.
- [2840] Davar Khoshnevisan and Yimin Xiao. Level sets of additive Lévy processes. *Ann. Probab.*, 30(1):62–100, 2002.
- [2841] Davar Khoshnevisan and Yimin Xiao. Weak unimodality of finite measures, and an application to potential theory of additive Lévy processes. *Proc. Amer. Math. Soc.*, 131(8):2611–2616, 2003.
- [2842] Davar Khoshnevisan and Yimin Xiao. Additive Lévy processes: capacity and Hausdorff dimension. In *Fractal geometry and stochastics III*, volume 57 of *Progr. Probab.*, pages 151–170. Birkhäuser, Basel, 2004.
- [2843] Davar Khoshnevisan and Yimin Xiao. Lévy processes: capacity and Hausdorff dimension. *Ann. Probab.*, 33(3):841–878, 2005.
- [2844] Davar Khoshnevisan and Yimin Xiao. Images of the Brownian sheet. *Trans. Amer. Math. Soc.*, 359(7):3125–3151, 2007.
- [2845] Davar Khoshnevisan and Yimin Xiao. Packing dimension of the range of a Lévy process. *Proc. Amer. Math. Soc.*, 136(7):2597–2607, 2008.
- [2846] Davar Khoshnevisan and Yimin Xiao. Packing-dimension profiles and fractional Brownian motion. *Math. Proc. Cambridge Philos. Soc.*, 145(1):205–213, 2008.
- [2847] Davar Khoshnevisan and Yimin Xiao. Harmonic analysis of additive Lévy processes. *Probab. Theory Related Fields*, 145(3-4):459–515, 2009.
- [2848] Davar Khoshnevisan and Yimin Xiao. Brownian motion and thermal capacity. *Ann. Probab.*, 43(1):405–434, 2015.
- [2849] Davar Khoshnevisan and Yimin Xiao. On the macroscopic fractal geometry of some random sets. In *Stochastic analysis and related topics*, volume 72 of *Progr. Probab.*, pages 179–206. Birkhäuser/Springer, Cham, 2017.
- [2850] D. Khoshnevisan. On sums of i.i.d. random variables indexed by  $N$  parameters. In *Séminaire de Probabilités, XXXIV*, volume 1729 of *Lecture Notes in Math.*, pages 151–156. Springer, Berlin, 2000.
- [2851] Davar Khoshnevisan. *Multiparameter processes*. Springer Monographs in Mathematics. Springer-Verlag, New York, 2002. An introduction to random fields.
- [2852] Davar Khoshnevisan. The codimension of the zeros of a stable process in random scenery. In *Séminaire de Probabilités XXXVII*, volume 1832 of *Lecture Notes in Math.*, pages 236–245. Springer, Berlin, 2003.
- [2853] Davar Khoshnevisan. Intersections of Brownian motions. *Expo. Math.*, 21(2):97–114, 2003.

- [2854] Davar Khoshnevisan. Brownian sheet and quasi-sure analysis. In *Asymptotic methods in stochastics*, volume 44 of *Fields Inst. Commun.*, pages 25–47. Amer. Math. Soc., Providence, RI, 2004.
- [2855] Davar Khoshnevisan. *Probability*, volume 80 of *Graduate Studies in Mathematics*. American Mathematical Society, Providence, RI, 2007.
- [2856] Davar Khoshnevisan. Dynamical percolation on general trees. *Probab. Theory Related Fields*, 140(1-2):169–193, 2008.
- [2857] Davar Khoshnevisan. Slices of a Brownian sheet: new results and open problems. In *Seminar on Stochastic Analysis, Random Fields and Applications V*, volume 59 of *Progr. Probab.*, pages 135–174. Birkhäuser, Basel, 2008.
- [2858] Davar Khoshnevisan. From fractals and probability to Lévy processes and stochastic PDEs. In *Fractal geometry and stochastics IV*, volume 61 of *Progr. Probab.*, pages 111–141. Birkhäuser Verlag, Basel, 2009.
- [2859] Davar Khoshnevisan. A primer on stochastic partial differential equations. In *A minicourse on stochastic partial differential equations*, volume 1962 of *Lecture Notes in Math.*, pages 1–38. Springer, Berlin, 2009.
- [2860] Davar Khoshnevisan. *Analysis of stochastic partial differential equations*, volume 119 of *CBMS Regional Conference Series in Mathematics*. Published for the Conference Board of the Mathematical Sciences, Washington, DC; by the American Mathematical Society, Providence, RI, 2014.
- [2861] D. Khoshnevisan. Parabolic SPDEs and intermittency. 16th Brazilian Summer School of Probability. Recife, Brazil, August 6–11, 2012. *Markov Process. Related Fields*, 20(1):45–80, 2014.
- [2862] Davar Khoshnevisan. Invariance and comparison principles for parabolic stochastic partial differential equations. In *From Lévy-type processes to parabolic SPDEs*, Adv. Courses Math. CRM Barcelona, pages 127–216. Birkhäuser/Springer, Cham, 2016.
- [2863] Davar Khoshnevisan. *Level crossings of the uniform empirical process*. ProQuest LLC, Ann Arbor, MI, 1989. Thesis (Ph.D.)—University of California, Berkeley.
- [2864] Davar Khoshnevisan. Level crossings of the empirical process. *Stochastic Process. Appl.*, 43(2):331–343, 1992.
- [2865] Davar Khoshnevisan. Local asymptotic laws for the Brownian convex hull. *Probab. Theory Related Fields*, 93(3):377–392, 1992.
- [2866] Davar Khoshnevisan. Moment inequalities for functionals of the Brownian convex hull. *Ann. Probab.*, 20(2):627–630, 1992.
- [2867] Davar Khoshnevisan. An embedding of compensated compound Poisson processes with applications to local times. *Ann. Probab.*, 21(1):340–361, 1993.
- [2868] Davar Khoshnevisan. A discrete fractal in  $\mathbf{Z}_+^1$ . *Proc. Amer. Math. Soc.*, 120(2):577–584, 1994.
- [2869] Davar Khoshnevisan. Exact rates of convergence to Brownian local time. *Ann. Probab.*, 22(3):1295–1330, 1994.
- [2870] Davar Khoshnevisan. The gap between the past supremum and the future infimum of a transient Bessel process. In *Séminaire de Probabilités, XXIX*, volume 1613 of *Lecture Notes in Math.*, pages 220–230. Springer, Berlin, 1995.

- [2871] Davar Khoshnevisan. On the distribution of bubbles of the Brownian sheet. *Ann. Probab.*, 23(2):786–805, 1995.
- [2872] Davar Khoshnevisan. Deviation inequalities for continuous martingales. *Stochastic Process. Appl.*, 65(1):17–30, 1996.
- [2873] Davar Khoshnevisan. Lévy classes and self-normalization. *Electron. J. Probab.*, 1:no. 1, approx. 18 pp., 1996.
- [2874] D. Khoshnevisan. Escape rates for Lévy processes. *Studia Sci. Math. Hungar.*, 33(1-3):177–183, 1997.
- [2875] Davar Khoshnevisan. Some polar sets for the Brownian sheet. In *Séminaire de Probabilités, XXXI*, volume 1655 of *Lecture Notes in Math.*, pages 190–197. Springer, Berlin, 1997.
- [2876] Davar Khoshnevisan. Brownian sheet images and Bessel-Riesz capacity. *Trans. Amer. Math. Soc.*, 351(7):2607–2622, 1999.
- [2877] S. I. Khudyaev. *Analiz v klassakh razryvnykh funktsiui i uravneniya matematicheskoi fiziki*. Izdat. “Nauka”, Moscow, 1975.
- [2878] Yuri Kifer. The Burgers equation with a random force and a general model for directed polymers in random environments. *Probab. Theory Related Fields*, 108(1):29–65, 1997.
- [2879] Anatoly A. Kilbas and Megumi Saigo. *H-transforms*, volume 9 of *Analytical Methods and Special Functions*. Chapman & Hall/CRC, Boca Raton, FL, 2004. Theory and applications.
- [2880] Anatoly A. Kilbas, Hari M. Srivastava, and Juan J. Trujillo. *Theory and applications of fractional differential equations*, volume 204 of *North-Holland Mathematics Studies*. Elsevier Science B.V., Amsterdam, 2006.
- [2881] Jin Min Kim and J. M. Kosterlitz. Growth in a restricted solid-on-solid model. *Phys. Rev. Lett.*, 62:2289–2292, May 1989.
- [2882] Yujin H. Kim, Eyal Lubetzky, and Ofer Zeitouni. The maximum of branching Brownian motion in  $R^d$ . *Ann. Appl. Probab.*, 33(2):1315–1368, 2023.
- [2883] Kunwoo Kim, Carl Mueller, and Richard B. Sowers. A stochastic moving boundary value problem. *Illinois J. Math.*, 54(3):927–962 (2012), 2010.
- [2884] Kunwoo Kim and Richard B. Sowers. Numerical analysis of the stochastic moving boundary problem. *Stoch. Anal. Appl.*, 30(6):963–996, 2012.
- [2885] Kunwoo Kim and Jaeyun Yi. Limit theorems for time-dependent averages of nonlinear stochastic heat equations. *Bernoulli*, 28(1):214–238, 2022.
- [2886] Kunwoo Kim, Zhi Zheng, and Richard B. Sowers. A stochastic Stefan problem. *J. Theoret. Probab.*, 25(4):1040–1080, 2012.
- [2887] Kyeong-Hun Kim. On stochastic partial differential equations with variable coefficients in  $C^1$  domains. *Stochastic Process. Appl.*, 112(2):261–283, 2004.
- [2888] Kunwoo Kim. On the large-scale structure of the tall peaks for stochastic heat equations with fractional Laplacian. *Stochastic Process. Appl.*, 129(6):2207–2227, 2019.
- [2889] Jeong Han Kim. On increasing subsequences of random permutations. *J. Combin. Theory Ser. A*, 76(1):148–155, 1996.
- [2890] J. F. C. Kingman. *Poisson processes*, volume 3 of *Oxford Studies in Probability*. The Clarendon Press, Oxford University Press, New York, 1993. Oxford Science Publications.

- [2891] C. Kipnis, S. Olla, and S. R. S. Varadhan. Hydrodynamics and large deviation for simple exclusion processes. *Comm. Pure Appl. Math.*, 42(2):115–137, 1989.
- [2892] Mokhtar Kirane, Erkan Nane, and Nguyen Huy Tuan. On a backward problem for multi-dimensional Ginzburg-Landau equation with random data. *Inverse Problems*, 34(1):015008, 21, 2018.
- [2893] Fima C. Klebaner, Justin Lazar, and Ofer Zeitouni. On the quasi-stationary distribution for some randomly perturbed transformations of an interval. *Ann. Appl. Probab.*, 8(1):300–315, 1998.
- [2894] Fima C. Klebaner and Ofer Zeitouni. The exit problem for a class of density-dependent branching systems. *Ann. Appl. Probab.*, 4(4):1188–1205, 1994.
- [2895] Igor R. Klebanov and Akikazu Hashimoto. Non-perturbative solution of matrix models modified by trace-squared terms. *Nuclear Phys. B*, 434(1-2):264–282, 1995.
- [2896] Igor R. Klebanov and Akikazu Hashimoto. Wormholes, matrix models, and Liouville gravity. volume 45BC, pages 135–148. 1996. String theory, gauge theory and quantum gravity (Trieste, 1995).
- [2897] Igor R. Klebanov. Touching random surfaces and Liouville gravity. *Phys. Rev. D* (3), 51(4):1836–1841, 1995.
- [2898] Achim Klenke and Leonid Mytnik. Infinite rate mutually catalytic branching. *Ann. Probab.*, 38(4):1690–1716, 2010.
- [2899] Achim Klenke and Leonid Mytnik. Infinite rate mutually catalytic branching in infinitely many colonies: the longtime behavior. *Ann. Probab.*, 40(1):103–129, 2012.
- [2900] Achim Klenke and Leonid Mytnik. Infinite rate mutually catalytic branching in infinitely many colonies: construction, characterization and convergence. *Probab. Theory Related Fields*, 154(3-4):533–584, 2012.
- [2901] Achim Klenke and Leonid Mytnik. Infinite rate symbiotic branching on the real line: the tired frogs model. *Ann. Inst. Henri Poincaré Probab. Stat.*, 56(2):847–883, 2020.
- [2902] Frank B. Knight. *Essentials of Brownian motion and diffusion*. Mathematical Surveys, No. 18. American Mathematical Society, Providence, R.I., 1981.
- [2903] V. G. Knizhnik, A. M. Polyakov, and A. B. Zamolodchikov. Fractal structure of 2D-quantum gravity. *Modern Phys. Lett. A*, 3(8):819–826, 1988.
- [2904] Kusuo Kobayashi, Tunekiti Sirao, and Hiroshi Tanaka. On the growing up problem for semilinear heat equations. *J. Math. Soc. Japan*, 29(3):407–424, 1977.
- [2905] Kei Kobayashi. Stochastic calculus for a time-changed semimartingale and the associated stochastic differential equations. *J. Theoret. Probab.*, 24(3):789–820, 2011.
- [2906] A. N. Kochubei. The Cauchy problem for evolution equations of fractional order. *Differentsialnye Uravneniya*, 25(8):1359–1368, 1468, 1989.
- [2907] A. N. Kochubei. Diffusion of fractional order. *Differentsialnye Uravneniya*, 26(4):660–670, 733–734, 1990.
- [2908] Arturo Kohatsu-Higa, Jorge A. León, and David Nualart. Stochastic differential equations with random coefficients. *Bernoulli*, 3(2):233–245, 1997.
- [2909] A. Kohatsu-Higa, D. Márquez-Carreras, and M. Sanz-Solé. Asymptotic behavior of the density in a parabolic SPDE. *J. Theoret. Probab.*, 14(2):427–462, 2001.

- [2910] A. Kohatsu-Higa, D. Márquez-Carreras, and M. Sanz-Solé. Logarithmic estimates for the density of hypoelliptic two-parameter diffusions. *J. Funct. Anal.*, 190(2):481–506, 2002.
- [2911] Arturo Kohatsu-Higa, Eulalia Nualart, and Ngoc Khue Tran. LAN property for a simple Lévy process. *C. R. Math. Acad. Sci. Paris*, 352(10):859–864, 2014.
- [2912] Arturo Kohatsu-Higa, Eulalia Nualart, and Ngoc Khue Tran. LAN property for an ergodic diffusion with jumps. *Statistics*, 51(2):419–454, 2017.
- [2913] Arturo Kohatsu-Higa, Eulalia Nualart, and Ngoc Khue Tran. Density estimates for jump diffusion processes. *Appl. Math. Comput.*, 420:Paper No. 126814, 10, 2022.
- [2914] Arturo Kohatsu-Higa and David Nualart. Large time asymptotic properties of the stochastic heat equation. *J. Theoret. Probab.*, 34(3):1455–1473, 2021.
- [2915] Arturo Kohatsu-Higa and Marta Sanz-Solé. Existence and regularity of density for solutions to stochastic differential equations with boundary conditions. *Stochastics Stochastics Rep.*, 60(1-2):1–22, 1997.
- [2916] A. N. Kolmogorov and S. V. Fomin. *Elements of the theory of functions and functional analysis. Vol. 1. Metric and normed spaces*. Graylock Press, Rochester, N.Y., 1957. Translated from the first Russian edition by Leo F. Boron.
- [2917] Vassili Kolokoltsov. Symmetric stable laws and stable-like jump-diffusions. *Proc. London Math. Soc. (3)*, 80(3):725–768, 2000.
- [2918] Takashi Komatsu. On the martingale problem for generators of stable processes with perturbations. *Osaka J. Math.*, 21(1):113–132, 1984.
- [2919] Tomasz Komorowski. Brownian motion in a Poisson obstacle field. Number 266, pages Exp. No. 853, 3, 91–111. 2000. Séminaire Bourbaki, Vol. 1998/99.
- [2920] V. A. Kondratev and S. D. Èuidelman. Boundary-surface conditions in the theory of elliptic boundary value problems. *Dokl. Akad. Nauk SSSR*, 246(4):812–815, 1979.
- [2921] Wolfgang König. *The parabolic Anderson model*. Pathways in Mathematics. Birkhäuser/Springer, [Cham], 2016. Random walk in random potential.
- [2922] N. Konno and T. Shiga. Stochastic partial differential equations for some measure-valued diffusions. *Probab. Theory Related Fields*, 79(2):201–225, 1988.
- [2923] T. H. Koornwinder, R. Wong, R. Koekoek, and R. F. Swarttouw. Orthogonal polynomials. In *NIST handbook of mathematical functions*, pages 435–484. U.S. Dept. Commerce, Washington, DC, 2010.
- [2924] Jacob Korevaar. *Tauberian theory*, volume 329 of *Grundlehren der mathematischen Wissenschaften [Fundamental Principles of Mathematical Sciences]*. Springer-Verlag, Berlin, 2004. A century of developments.
- [2925] T. W. Körner. *Fourier analysis*. Cambridge Mathematical Library. Cambridge University Press, Cambridge, 2022. Reprint of [0924154], With a foreword by Terence Tao.
- [2926] Ivan K. Kostov and Matthias Staudacher. Multicritical phases of the  $O(n)$  model on a random lattice. *Nuclear Phys. B*, 384(3):459–483, 1992.
- [2927] I. Kostov. Boundary loop models and 2D quantum gravity. In *Exact methods in low-dimensional statistical physics and quantum computing*, pages 363–406. Oxford Univ. Press, Oxford, 2010.
- [2928] Ivan Kostov. Two-dimensional quantum gravity. In *The Oxford handbook of random matrix theory*, pages 619–640. Oxford Univ. Press, Oxford, 2011.

- [2929] I. K. Kostov. Loop amplitudes for nonrational string theories. *Phys. Lett. B*, 266(3-4):317–324, 1991.
- [2930] Ivan K. Kostov. Strings with discrete target space. *Nuclear Phys. B*, 376(3):539–598, 1992.
- [2931] Elena Kosygina, Atilla Yilmaz, and Ofer Zeitouni. Homogenization of a class of one-dimensional nonconvex viscous Hamilton-Jacobi equations with random potential. *Comm. Partial Differential Equations*, 45(1):32–56, 2020.
- [2932] Peter Kotelenetz. *Stochastic ordinary and stochastic partial differential equations*, volume 58 of *Stochastic Modelling and Applied Probability*. Springer, New York, 2008. Transition from microscopic to macroscopic equations.
- [2933] Peter Kotelenetz. Comparison methods for a class of function valued stochastic partial differential equations. *Probab. Theory Related Fields*, 93(1):1–19, 1992.
- [2934] V. A. Kozlov, V. G. Mazya, and J. Rossmann. *Elliptic boundary value problems in domains with point singularities*, volume 52 of *Mathematical Surveys and Monographs*. American Mathematical Society, Providence, RI, 1997.
- [2935] Gady Kozma and Ofer Zeitouni. On common roots of random Bernoulli polynomials. *Int. Math. Res. Not. IMRN*, (18):4334–4347, 2013.
- [2936] Alexander M. Krägeloh. Two families of functions related to the fractional powers of generators of strongly continuous contraction semigroups. *J. Math. Anal. Appl.*, 283(2):459–467, 2003.
- [2937] Alexandre Krajenbrink, Pierre Le Doussal, and Sylvain Prolhac. Systematic time expansion for the Kardar-Parisi-Zhang equation, linear statistics of the GUE at the edge and trapped fermions. *Nuclear Phys. B*, 936:239–305, 2018.
- [2938] Alexandre Krajenbrink and Pierre Le Doussal. Simple derivation of the  $(-\lambda H)^{5/2}$  tail for the 1D KPZ equation. *J. Stat. Mech. Theory Exp.*, (6):063210, 32, 2018.
- [2939] Steven G. Krantz. *Geometric analysis and function spaces*, volume 81 of *CBMS Regional Conference Series in Mathematics*. Published for the Conference Board of the Mathematical Sciences, Washington, DC; by the American Mathematical Society, Providence, RI, 1993.
- [2940] V. E. Kravtsov. Random matrix representations of critical statistics. In *The Oxford handbook of random matrix theory*, pages 250–269. Oxford Univ. Press, Oxford, 2011.
- [2941] Arjun Krishnan and Jeremy Quastel. Tracy-Widom fluctuations for perturbations of the log-gamma polymer in intermediate disorder. *Ann. Appl. Probab.*, 28(6):3736–3764, 2018.
- [2942] Manjunath Krishnapur and Yuval Peres. Recurrent graphs where two independent random walks collide finitely often. *Electron. Comm. Probab.*, 9:72–81, 2004.
- [2943] J Krug and H Spohn. Kinetic roughening of growing surfaces. *Solids far from equilibrium*, pages 479–582, 1991.
- [2944] N. V. Krylov, M. Röckner, and J. Zabczyk. *Stochastic PDE’s and Kolmogorov equations in infinite dimensions*, volume 1715 of *Lecture Notes in Mathematics*. Springer-Verlag, Berlin; Centro Internazionale Matematico Estivo (C.I.M.E.), Florence, 1999. Lectures given at the 2nd C.I.M.E. Session held in Cetraro, August 24–September 1, 1998, Edited by G. Da Prato, Fondazione CIME/CIME Foundation Subseries.
- [2945] N. V. Krylov and B. L. Rozovskiui. Stochastic evolution equations. In *Current problems in mathematics, Vol. 14 (Russian)*, pages 71–147, 256. Akad. Nauk SSSR, Vsesoyuz. Inst. Nauchn. i Tekhn. Informatsii, Moscow, 1979.

- [2946] V. Ju. Krylov. Some properties of the distribution corresponding to the equation  $\partial u/\partial t = (-1)^{q+1}\partial^{2q}u/\partial x^{2q}$ . *Soviet Math. Dokl.*, 1:760–763, 1960.
- [2947] N. V. Krylov. On  $L_p$ -theory of stochastic partial differential equations in the whole space. *SIAM J. Math. Anal.*, 27(2):313–340, 1996.
- [2948] N. V. Krylov. An analytic approach to SPDEs. In *Stochastic partial differential equations: six perspectives*, volume 64 of *Math. Surveys Monogr.*, pages 185–242. Amer. Math. Soc., Providence, RI, 1999.
- [2949] J. Kuelbs, W. V. Li, and Qi Man Shao. Small ball probabilities for Gaussian processes with stationary increments under Hölder norms. *J. Theoret. Probab.*, 8(2):361–386, 1995.
- [2950] James Kuelbs and Wenbo V. Li. Metric entropy and the small ball problem for Gaussian measures. *J. Funct. Anal.*, 116(1):133–157, 1993.
- [2951] James Kuelbs and Wenbo V. Li. Small ball estimates for Brownian motion and the Brownian sheet. *J. Theoret. Probab.*, 6(3):547–577, 1993.
- [2952] A. B. J. Kuijlaars. Universality. In *The Oxford handbook of random matrix theory*, pages 103–134. Oxford Univ. Press, Oxford, 2011.
- [2953] Sanjeev R. Kulkarni and Ofer Zeitouni. Can one decide the type of the mean from the empirical measure? *Statist. Probab. Lett.*, 12(4):323–327, 1991.
- [2954] Sanjeev R. Kulkarni and Ofer Zeitouni. A general classification rule for probability measures. *Ann. Statist.*, 23(4):1393–1407, 1995.
- [2955] Takashi Kumagai and Ofer Zeitouni. Fluctuations of maxima of discrete Gaussian free fields on a class of recurrent graphs. *Electron. Commun. Probab.*, 18:no. 75, 12, 2013.
- [2956] Takashi Kumagai. *Random walks on disordered media and their scaling limits*, volume 2101 of *Lecture Notes in Mathematics*. Springer, Cham, 2014. Lecture notes from the 40th Probability Summer School held in Saint-Flour, 2010, École d’Été de Probabilités de Saint-Flour. [Saint-Flour Probability Summer School].
- [2957] A. Kumar, Erkan Nane, and P. Vellaisamy. Time-changed Poisson processes. *Statist. Probab. Lett.*, 81(12):1899–1910, 2011.
- [2958] Arun Kumar and Erkan Nane. On the infinite divisibility of distributions of some inverse subordinators. *Mod. Stoch. Theory Appl.*, 5(4):509–519, 2018.
- [2959] Hiroshi Kunita. *Stochastic flows and stochastic differential equations*, volume 24 of *Cambridge Studies in Advanced Mathematics*. Cambridge University Press, Cambridge, 1990.
- [2960] Peer C. Kunstmann and Lutz Weis. Maximal  $L_p$ -regularity for parabolic equations, Fourier multiplier theorems and  $H^{\infty}$ -functional calculus. In *Functional analytic methods for evolution equations*, volume 1855 of *Lecture Notes in Math.*, pages 65–311. Springer, Berlin, 2004.
- [2961] Hung-Wen Kuo, Tai-Ping Liu, and Li-Cheng Tsai. Free molecular flow with boundary effect. *Comm. Math. Phys.*, 318(2):375–409, 2013.
- [2962] Hung-Wen Kuo, Tai-Ping Liu, and Li-Cheng Tsai. Equilibrating effects of boundary and collision in rarefied gases. *Comm. Math. Phys.*, 328(2):421–480, 2014.
- [2963] Hui-Hsiung Kuo. *Introduction to stochastic integration*. Universitext. Springer, New York, 2006.
- [2964] Hui Hsiung Kuo. *Gaussian measures in Banach spaces*. Lecture Notes in Mathematics, Vol. 463. Springer-Verlag, Berlin-New York, 1975.



- [2965] Antti Kupiainen and Matteo Marozzi. Renormalization of generalized KPZ equation. *J. Stat. Phys.*, 166(3-4):876–902, 2017.
- [2966] Antti Kupiainen. Renormalization group and stochastic PDEs. *Ann. Henri Poincaré*, 17(3):497–535, 2016.
- [2967] Thomas G. Kurtz and Jie Xiong. Particle representations for a class of nonlinear SPDEs. *Stochastic Process. Appl.*, 83(1):103–126, 1999.
- [2968] Thomas G. Kurtz. The Yamada-Watanabe-Engelbert theorem for general stochastic equations and inequalities. *Electron. J. Probab.*, 12:951–965, 2007.
- [2969] Thomas G. Kurtz. Equivalence of stochastic equations and martingale problems. In *Stochastic analysis 2010*, pages 113–130. Springer, Heidelberg, 2011.
- [2970] Thomas G. Kurtz. *Approximation of population processes*, volume 36 of *CBMS-NSF Regional Conference Series in Applied Mathematics*. Society for Industrial and Applied Mathematics (SIAM), Philadelphia, Pa., 1981.
- [2971] S. Kusuoka and D. Stroock. Applications of the Malliavin calculus. III. *J. Fac. Sci. Univ. Tokyo Sect. IA Math.*, 34(2):391–442, 1987.
- [2972] Sefika Kuzgun and David Nualart. Rate of convergence in the Breuer-Major theorem via chaos expansions. *Stoch. Anal. Appl.*, 37(6):1057–1091, 2019.
- [2973] A. E. Kyprianou. Slow variation and uniqueness of solutions to the functional equation in the branching random walk. *J. Appl. Probab.*, 35(4):795–801, 1998.
- [2974] Prem K. Kythe. *Handbook of conformal mappings and applications*. CRC Press, Boca Raton, FL, 2019.
- [2975] Cyril Labbé. Quasi-stationary distributions associated with explosive CSBP. *Electron. Commun. Probab.*, 18:no. 57, 13, 2013.
- [2976] Cyril Labbé. Weakly asymmetric bridges and the KPZ equation. *Comm. Math. Phys.*, 353(3):1261–1298, 2017.
- [2977] Cyril Labbé. The continuous Anderson Hamiltonian in  $d \leq 3$ . *J. Funct. Anal.*, 277(9):3187–3235, 2019.
- [2978] Céline Lacaux, Aurélie Muller-Gueudin, Radu Ranta, and Samy Tindel. Convergence and performance of the peeling wavelet denoising algorithm. *Metrika*, 77(4):509–537, 2014.
- [2979] A. A. Lacey and D. Tzanetis. Complete blow-up for a semilinear diffusion equation with a sufficiently large initial condition. *IMA J. Appl. Math.*, 41(3):207–215, 1988.
- [2980] A. A. Lacey and D. E. Tzanetis. Global, unbounded solutions to a parabolic equation. *J. Differential Equations*, 101(1):80–102, 1993.
- [2981] Michael Lacey. Large deviations for the maximum local time of stable Lévy processes. *Ann. Probab.*, 18(4):1669–1675, 1990.
- [2982] Hubert Lacoin. New bounds for the free energy of directed polymers in dimension  $1 + 1$  and  $1 + 2$ . *Comm. Math. Phys.*, 294(2):471–503, 2010.
- [2983] Hubert Lacoin. Influence of spatial correlation for directed polymers. *Ann. Probab.*, 39(1):139–175, 2011.
- [2984] O. A. Ladyženskaja, V. A. Solonnikov, and N. N. Uralceva. *Linear and quasilinear equations of parabolic type*. Translations of Mathematical Monographs, Vol. 23. American Mathematical Society, Providence, R.I., 1968. Translated from the Russian by S. Smith.

- [1985] O. A. Ladyzhenskaya. *The boundary value problems of mathematical physics*, volume 49 of *Applied Mathematical Sciences*. Springer-Verlag, New York, 1985. Translated from the Russian by Jack Lohwater [Arthur J. Lohwater].
- [1986] Ad Legendijk, Bart van Tiggelen, and Diederik S. Wiersma. Fifty years of anderson localization. *Phys. Today*, 62(8):24–29, 08 2009.
- [1987] Tze Leung Lai. Reproducing kernel Hilbert spaces and the law of the iterated logarithm for Gaussian processes. *Z. Wahrscheinlichkeitstheorie und Verw. Gebiete*, 29:7–19, 1974.
- [1988] El Hassan Lakhel. Large deviation for stochastic Volterra equation in the Besov-Orlicz space and application. *Random Oper. Stochastic Equations*, 11(4):333–350, 2003.
- [1989] L. D. Landau and E. M. Lifshitz. *Quantum mechanics: non-relativistic theory. Course of Theoretical Physics, Vol. 3*. Addison-Wesley Series in Advanced Physics. Pergamon Press Ltd., London-Paris; for U.S.A. and Canada: Addison-Wesley Publishing Co., Inc., Reading, Mass.;, 1958. Translated from the Russian by J. B. Sykes and J. S. Bell.
- [1990] L. D. Landau and E. M. Lifshitz. *Course of theoretical physics. Vol. 5: Statistical physics*. Pergamon Press, Oxford-Edinburgh-New York, enlarged edition, 1968. Translated from the Russian by J. B. Sykes and M. J. Kearsley.
- [1991] H. J. Landau and L. A. Shepp. On the supremum of a Gaussian process. *Sankhyā Ser. A*, 32:369–378, 1970.
- [1992] C. Landim, J. Quastel, M. Salmhofer, and H.-T. Yau. Superdiffusivity of asymmetric exclusion process in dimensions one and two. *Comm. Math. Phys.*, 244(3):455–481, 2004.
- [1993] N. S. Landkof. *Foundations of modern potential theory*. Die Grundlehren der mathematischen Wissenschaften, Band 180. Springer-Verlag, New York-Heidelberg, 1972. Translated from the Russian by A. P. Doohovskoy.
- [1994] M. J. Landman, G. C. Papanicolaou, C. Sulem, and P.-L. Sulem. Rate of blowup for solutions of the nonlinear Schrödinger equation at critical dimension. *Phys. Rev. A (3)*, 38(8):3837–3843, 1988.
- [1995] Noureddine Lanjri Zadi and David Nualart. Smoothness of the law of the supremum of the fractional Brownian motion. *Electron. Comm. Probab.*, 8:102–111, 2003.
- [1996] N. Lanjri Zaïdi and D. Nualart. Backward stochastic differential equations in the plane. *Potential Anal.*, 16(4):373–386, 2002.
- [1997] J. LaSalle. Uniqueness theorems and successive approximations. *Ann. of Math. (2)*, 50:722–730, 1949.
- [1998] Rafał Łatała and Dariusz Matlak. Royen’s proof of the Gaussian correlation inequality. In *Geometric aspects of functional analysis*, volume 2169 of *Lecture Notes in Math.*, pages 265–275. Springer, Cham, 2017.
- [1999] Derek F. Lawden. *Elliptic functions and applications*, volume 80 of *Applied Mathematical Sciences*. Springer-Verlag, New York, 1989.
- [3000] Gregory F. Lawler, Oded Schramm, and Wendelin Werner. On the scaling limit of planar self-avoiding walk. In *Fractal geometry and applications: a jubilee of Benoît Mandelbrot, Part 2*, volume 72 of *Proc. Sympos. Pure Math.*, pages 339–364. Amer. Math. Soc., Providence, RI, 2004.
- [3001] Gregory F. Lawler. *Introduction to stochastic processes*. Chapman & Hall/CRC, Boca Raton, FL, second edition, 2006.

- [3002] Gregory F. Lawler. Fractal and multifractal properties of Schramm-Loewner evolution. In *Probability and statistical physics in two and more dimensions*, volume 15 of *Clay Math. Proc.*, pages 277–318. Amer. Math. Soc., Providence, RI, 2012.
- [3003] C. Le Bris and P.-L. Lions. Existence and uniqueness of solutions to Fokker-Planck type equations with irregular coefficients. *Comm. Partial Differential Equations*, 33(7-9):1272–1317, 2008.
- [3004] Jean-François Le Gall and Grégory Miermont. Scaling limits of random trees and planar maps. In *Probability and statistical physics in two and more dimensions*, volume 15 of *Clay Math. Proc.*, pages 155–211. Amer. Math. Soc., Providence, RI, 2012.
- [3005] Jean-François Le Gall and Leonid Mytnik. Stochastic integral representation and regularity of the density for the exit measure of super-Brownian motion. *Ann. Probab.*, 33(1):194–222, 2005.
- [3006] Jean-François Le Gall and Jay Rosen. The range of stable random walks. *Ann. Probab.*, 19(2):650–705, 1991.
- [3007] Jean-François Le Gall. Subordination of trees and the Brownian map. *Probab. Theory Related Fields*, 171(3-4):819–864, 2018.
- [3008] Jean-François Le Gall. Exponential moments for the renormalized self-intersection local time of planar Brownian motion. In *Séminaire de Probabilités, XXVIII*, volume 1583 of *Lecture Notes in Math.*, pages 172–180. Springer, Berlin, 1994.
- [3009] Jean-François Le Gall. The Brownian snake and solutions of  $\Delta u = u^2$  in a domain. *Probab. Theory Related Fields*, 102(3):393–432, 1995.
- [3010] Jean-François Le Gall. *Spatial branching processes, random snakes and partial differential equations*. Lectures in Mathematics ETH Zürich. Birkhäuser Verlag, Basel, 1999.
- [3011] Khoa Lê. A remark on a result of Xia Chen. *Statist. Probab. Lett.*, 118:124–126, 2016.
- [3012] Rémi Léandre. Minoration en temps petit de la densité d’une diffusion dégénérée. *J. Funct. Anal.*, 74(2):399–414, 1987.
- [3013] Thomas Leblé, Sylvia Serfaty, and Ofer Zeitouni. Large deviations for the two-dimensional two-component plasma. *Comm. Math. Phys.*, 350(1):301–360, 2017.
- [3014] Thomas Leblé and Ofer Zeitouni. A local CLT for linear statistics of 2D Coulomb gases. *Markov Process. Related Fields*, 27(4):607–630, 2021.
- [3015] J. L. Lebowitz and O. Penrose. Rigorous treatment of the van der Waals-Maxwell theory of the liquid-vapor transition. *J. Mathematical Phys.*, 7:98–113, 1966.
- [3016] Atef Lechiheb, Ivan Nourdin, Guangqu Zheng, and Ezzedine Haouala. Convergence of random oscillatory integrals in the presence of long-range dependence and application to homogenization. *Probab. Math. Statist.*, 38(2):271–286, 2018. [On table of contents: Vol. 33 (2013)].
- [3017] Michel Ledoux, Ivan Nourdin, and Giovanni Peccati. Stein’s method, logarithmic Sobolev and transport inequalities. *Geom. Funct. Anal.*, 25(1):256–306, 2015.
- [3018] Michel Ledoux, Ivan Nourdin, and Giovanni Peccati. A Stein deficit for the logarithmic Sobolev inequality. *Sci. China Math.*, 60(7):1163–1180, 2017.
- [3019] Michel Ledoux and Michel Talagrand. *Probability in Banach spaces*, volume 23 of *Ergebnisse der Mathematik und ihrer Grenzgebiete (3) [Results in Mathematics and Related Areas (3)]*. Springer-Verlag, Berlin, 1991. Isoperimetry and processes.

- [3020] Michel Ledoux. *The concentration of measure phenomenon*, volume 89 of *Mathematical Surveys and Monographs*. American Mathematical Society, Providence, RI, 2001.
- [3021] Michel Ledoux. Isoperimetry and Gaussian analysis. In *Lectures on probability theory and statistics (Saint-Flour, 1994)*, volume 1648 of *Lecture Notes in Math.*, pages 165–294. Springer, Berlin, 1996.
- [3022] Cheuk-Yin Lee and Chi-Wai Leung. Norm-attaining property for a dual pair of Banach spaces. *J. Math. Anal. Appl.*, 445(1):556–563, 2017.
- [3023] Cheuk-Yin Lee and Chi-Wai Leung. Regularity of certain commutative Banach rings. *J. Math. Anal. Appl.*, 517(1):Paper No. 126589, 10, 2023.
- [3024] Kijung Lee, Carl Mueller, and Jie Xiong. Some properties of superprocesses under a stochastic flow. *Ann. Inst. Henri Poincaré Probab. Stat.*, 45(2):477–490, 2009.
- [3025] Jong Jun Lee, Carl Mueller, and Eyal Neuman. Hitting probabilities of a Brownian flow with radial drift. *Ann. Probab.*, 48(2):646–671, 2020.
- [3026] Cheuk Yin Lee and Yimin Xiao. Local nondeterminism and the exact modulus of continuity for stochastic wave equation. *Electron. Commun. Probab.*, 24:Paper No. 52, 8, 2019.
- [3027] Cheuk Yin Lee and Yimin Xiao. Propagation of singularities for the stochastic wave equation. *Stochastic Process. Appl.*, 143:31–54, 2022.
- [3028] Cheuk Yin Lee and Yimin Xiao. Chung-type law of the iterated logarithm and exact moduli of continuity for a class of anisotropic Gaussian random fields. *Bernoulli*, 29(1):523–550, 2023.
- [3029] Cheuk Yin Lee. *Sample Path Properties of Gaussian Random Fields and Stochastic Partial Differential Equations*. ProQuest LLC, Ann Arbor, MI, 2020. Thesis (Ph.D.)–Michigan State University.
- [3030] Cheuk Yin Lee. The Hausdorff measure of the range and level sets of Gaussian random fields with sectorial local nondeterminism. *Bernoulli*, 28(1):277–306, 2022.
- [3031] Cheuk Yin Lee. Local nondeterminism and local times of the stochastic wave equation driven by fractional-colored noise. *J. Fourier Anal. Appl.*, 28(2):Paper No. 26, 38, 2022.
- [3032] T. D. Lee. *Particle physics and introduction to field theory*, volume 1 of *Contemporary Concepts in Physics*. Harwood Academic Publishers, Chur, 1981. Translated from the Chinese.
- [3033] Joseph Lehec. Representation formula for the entropy and functional inequalities. *Ann. Inst. Henri Poincaré Probab. Stat.*, 49(3):885–899, 2013.
- [3034] Joseph Lehec. Short probabilistic proof of the Brascamp-Lieb and Barthe theorems. *Canad. Math. Bull.*, 57(3):585–597, 2014.
- [3035] Pedro Lei and David Nualart. A decomposition of the bifractional Brownian motion and some applications. *Statist. Probab. Lett.*, 79(5):619–624, 2009.
- [3036] Pedro Lei and David Nualart. Stochastic calculus for Gaussian processes and application to hitting times. *Commun. Stoch. Anal.*, 6(3):379–402, 2012.
- [3037] Jorge A. León, Reyla Navarro, and David Nualart. An anticipating calculus approach to the utility maximization of an insider. volume 13, pages 171–185. 2003. Conference on Applications of Malliavin Calculus in Finance (Rocquencourt, 2001).
- [3038] Jorge A. León, D. Nualart, and Roger Pettersson. The stochastic Burgers equation: finite moments and smoothness of the density. *Infin. Dimens. Anal. Quantum Probab. Relat. Top.*, 3(3):363–385, 2000.

- [3039] Jorge A. León, David Nualart, and Samy Tindel. Young differential equations with power type nonlinearities. *Stochastic Process. Appl.*, 127(9):3042–3067, 2017.
- [3040] Jorge A. León and David Nualart. Anticipating integral equations. *Potential Anal.*, 13(3):249–268, 2000.
- [3041] Jorge A. León and David Nualart. An extension of the divergence operator for Gaussian processes. *Stochastic Process. Appl.*, 115(3):481–492, 2005.
- [3042] Jorge A. León and David Nualart. Clark-Ocone formula for fractional Brownian motion with Hurst parameter less than  $1/2$ . *Stoch. Anal. Appl.*, 24(2):427–449, 2006.
- [3043] Jorge A. León and David Nualart. Stochastic evolution equations with random generators. *Ann. Probab.*, 26(1):149–186, 1998.
- [3044] Jorge A. León and Samy Tindel. Itô’s formula for linear fractional PDEs. *Stochastics*, 80(5):427–450, 2008.
- [3045] Jorge A. León and Samy Tindel. Malliavin calculus for fractional delay equations. *J. Theoret. Probab.*, 25(3):854–889, 2012.
- [3046] Jorge A. León and José Villa. An Osgood criterion for integral equations with applications to stochastic differential equations with an additive noise. *Statist. Probab. Lett.*, 81(4):470–477, 2011.
- [3047] Giovanni Leoni. *A first course in Sobolev spaces*, volume 181 of *Graduate Studies in Mathematics*. American Mathematical Society, Providence, RI, second edition, 2017.
- [3048] L. A. Lepin. Self-similar solutions of a semilinear heat equation. *Mat. Model.*, 2(3):63–74, 1990.
- [3049] Dominique Lépine, David Nualart, and Marta Sanz. Dérivation stochastique de diffusions réfléchies. *Ann. Inst. H. Poincaré Probab. Statist.*, 25(3):283–305, 1989.
- [3050] Dominique Lépine and Jean-Yves Oувrard. Martingales browniennes hilbertiennes. *C. R. Acad. Sci. Paris Sér. A-B*, 276:A1225–A1228, 1973.
- [3051] Emmanuel Lesigne and Dalibor Volný. Large deviations for martingales. *Stochastic Process. Appl.*, 96(1):143–159, 2001.
- [3052] David Levanony, Adam Schwartz, and Ofer Zeitouni. Uniform decay and equicontinuity for normalized, parameter dependent, Itô integrals. *Stochastics Stochastics Rep.*, 43(1-2):9–28, 1993.
- [3053] David Levanony, Adam Shwartz, and Ofer Zeitouni. Recursive identification in continuous-time stochastic processes. *Stochastic Process. Appl.*, 49(2):245–275, 1994.
- [3054] N. Levi, O. Zeuituni, and Sh. Shamai. The central limit theorem and large deviations of the fading Wyner cellular model using the methods of the theory of the product of random matrices. *Problemy Peredachi Informatsii*, 45(1):8–26, 2009.
- [3055] Howard A. Levine, Sang Ro Park, and James Serrin. Global existence and nonexistence theorems for quasilinear evolution equations of formally parabolic type. *J. Differential Equations*, 142(1):212–229, 1998.
- [3056] Howard A. Levine and Lawrence E. Payne. Nonexistence of global weak solutions for classes of nonlinear wave and parabolic equations. *J. Math. Anal. Appl.*, 55(2):329–334, 1976.
- [3057] Howard A. Levine. Some nonexistence and instability theorems for solutions of formally parabolic equations of the form  $Pu_t = -Au + F(u)$ . *Arch. Rational Mech. Anal.*, 51:371–386, 1973.

- [3058] Howard A. Levine. Quenching, nonquenching, and beyond quenching for solution of some parabolic equations. *Ann. Mat. Pura Appl. (4)*, 155:243–260, 1989.
- [3059] Howard A. Levine. The role of critical exponents in blowup theorems. *SIAM Rev.*, 32(2):262–288, 1990.
- [3060] Nathan Levy, Oren Somekh, Shlomo Shamai, and Ofer Zeitouni. On certain large random Hermitian Jacobi matrices with applications to wireless communications. *IEEE Trans. Inform. Theory*, 55(4):1534–1554, 2009.
- [3061] Nathan Levy, Ofer Zeitouni, and Shlomo Shamai. On information rates of the fading Wyner cellular model via the Thouless formula for the strip. *IEEE Trans. Inform. Theory*, 56(11):5495–5514, 2010.
- [3062] Mathieu Lewin, Phan Thành Nam, and Nicolas Rougerie. Derivation of Hartree’s theory for generic mean-field Bose systems. *Adv. Math.*, 254:570–621, 2014.
- [3063] Peter Lewis and David Nualart. Stochastic Burgers’ equation on the real line: regularity and moment estimates. *Stochastics*, 90(7):1053–1086, 2018.
- [3064] Heyu Li and Xia Chen. Precise moment asymptotics for the stochastic heat equation of a time-derivative Gaussian noise. *Acta Math. Sci. Ser. B (Engl. Ed.)*, 39(3):629–644, 2019.
- [3065] Min Li, Yaozhong Hu, Chengming Huang, and Xiong Wang. Mean square stability of stochastic theta method for stochastic differential equations driven by fractional Brownian motion. *J. Comput. Appl. Math.*, 420:Paper No. 114804, 24, 2023.
- [3066] Min Li, Chengming Huang, and Yaozhong Hu. Asymptotic separation for stochastic Volterra integral equations with doubly singular kernels. *Appl. Math. Lett.*, 113:Paper No. 106880, 7, 2021.
- [3067] Min Li, Chengming Huang, and Yaozhong Hu. Numerical methods for stochastic Volterra integral equations with weakly singular kernels. *IMA J. Numer. Anal.*, 42(3):2656–2683, 2022.
- [3068] Zenghu Li and Leonid Mytnik. Strong solutions for stochastic differential equations with jumps. *Ann. Inst. Henri Poincaré Probab. Stat.*, 47(4):1055–1067, 2011.
- [3069] Wenbo V. Li and Qi-Man Shao. A note on the Gaussian correlation conjecture. In *High dimensional probability, II (Seattle, WA, 1999)*, volume 47 of *Progr. Probab.*, pages 163–171. Birkhäuser Boston, Boston, MA, 2000.
- [3070] W. V. Li and Q.-M. Shao. Gaussian processes: inequalities, small ball probabilities and applications. In *Stochastic processes: theory and methods*, volume 19 of *Handbook of Statist.*, pages 533–597. North-Holland, Amsterdam, 2001.
- [3071] Qianxiao Li, Cheng Tai, and Weinan E. Stochastic modified equations and adaptive stochastic gradient algorithms. In Doina Precup and Yee Whye Teh, editors, *Proceedings of the 34th International Conference on Machine Learning*, volume 70 of *Proceedings of Machine Learning Research*, pages 2101–2110. PMLR, 06–11 Aug 2017.
- [3072] Zenghu Li, Hao Wang, Jie Xiong, and Xiaowen Zhou. Joint continuity of the solutions to a class of nonlinear SPDEs. *Probab. Theory Related Fields*, 153(3-4):441–469, 2012.
- [3073] Yuan-Chuan Li. A note on an identity of the gamma function and Stirling’s formula. *Real Anal. Exchange*, 32(1):267–271, 2006/07.
- [3074] Ming Liao. *Applied stochastic processes*. CRC Press, Boca Raton, FL, 2014.

- [3075] C. Licea, C. M. Newman, and M. S. T. Piza. Superdiffusivity in first-passage percolation. *Probab. Theory Related Fields*, 106(4):559–591, 1996.
- [3076] Elliott H. Lieb and Werner Liniger. Exact analysis of an interacting Bose gas. I. The general solution and the ground state. *Phys. Rev. (2)*, 130:1605–1616, 1963.
- [3077] Elliott H. Lieb and Michael Loss. *Analysis*, volume 14 of *Graduate Studies in Mathematics*. American Mathematical Society, Providence, RI, second edition, 2001.
- [3078] Elliott H. Lieb and Lawrence E. Thomas. Exact ground state energy of the strong-coupling polaron. *Comm. Math. Phys.*, 183(3):511–519, 1997.
- [3079] Elliott H. Lieb. Gaussian kernels have only Gaussian maximizers. *Invent. Math.*, 102(1):179–208, 1990.
- [3080] E. M. Lifshitz and L. P. Pitaevskii. *Course of theoretical physics [“Landau-Lifshits”]*. Vol. 9. Pergamon Press, Oxford-Elmsford, N.Y., 1980. Statistical physics. Part 2. Theory of the condensed state, Translated from the Russian by J. B. Sykes and M. J. Kearsley.
- [3081] Thomas M. Liggett. *Interacting particle systems*. Classics in Mathematics. Springer-Verlag, Berlin, 2005. Reprint of the 1985 original.
- [3082] Thomas M. Liggett. *Interacting particle systems*, volume 276 of *Grundlehren der mathematischen Wissenschaften [Fundamental Principles of Mathematical Sciences]*. Springer-Verlag, New York, 1985.
- [3083] Thomas M. Liggett. *Stochastic interacting systems: contact, voter and exclusion processes*, volume 324 of *Grundlehren der mathematischen Wissenschaften [Fundamental Principles of Mathematical Sciences]*. Springer-Verlag, Berlin, 1999.
- [3084] Kevin Lin and Carl Mueller. Can the stochastic wave equation with strong drift hit zero? *Electron. J. Probab.*, 24:Paper No. 14, 26, 2019.
- [3085] Hao Lin and Timo Seppäläinen. Properties of the limit shape for some last-passage growth models in random environments. *Stochastic Process. Appl.*, 122(2):498–521, 2012.
- [3086] Yier Lin and Li-Cheng Tsai. Short time large deviations of the KPZ equation. *Comm. Math. Phys.*, 386(1):359–393, 2021.
- [3087] V. Linde and A. Pič. Mappings of Gaussian measures of cylindrical sets in Banach spaces. *Teor. Verojatnost. i Primenen.*, 19:472–487, 1974.
- [3088] Pierre-Louis Lions. *Mathematical topics in fluid mechanics. Vol. 1*, volume 3 of *Oxford Lecture Series in Mathematics and its Applications*. The Clarendon Press, Oxford University Press, New York, 1996. Incompressible models, Oxford Science Publications.
- [3089] Robert Liptser and Ofer Zeitouni. Robust diffusion approximation for nonlinear filtering. *J. Math. Systems Estim. Control*, 8(1):22 pp., 1998.
- [3090] Vitali Liskevich and Michael Röckner. Strong uniqueness for certain infinite-dimensional Dirichlet operators and applications to stochastic quantization. *Ann. Scuola Norm. Sup. Pisa Cl. Sci. (4)*, 27(1):69–91 (1999), 1998.
- [3091] Zixin Liu and Xiaojia Chen. Wave function in quantum cosmology of Bergmann-Wagoner scalar-tensor gravitational theory. *Chinese Phys. Lett.*, 9(12):673–676, 1992.
- [3092] Wei Liu, Mohammud Foondun, and Xuerong Mao. Mean square polynomial stability of numerical solutions to a class of stochastic differential equations. *Statist. Probab. Lett.*, 92:173–182, 2014.

- [3093] Yiran Liu, Harsha Honnappa, Samy Tindel, and Nung Kwan Yip. Infinite server queues in a random fast oscillatory environment. *Queueing Syst.*, 98(1-2):145–179, 2021.
- [3094] Shuhui Liu, Yaozhong Hu, and Xiong Wang. Necessary and sufficient conditions to solve parabolic anderson model with rough noise. *preprint arXiv:2206.02641*, June 2022.
- [3095] Shuhui Liu, Yaozhong Hu, and Xiong Wang. Nonlinear stochastic wave equation driven by rough noise. *J. Differential Equations*, 331:99–161, 2022.
- [3096] Shuhui Liu, Yaozhong Hu, and Xiong Wang. Stochastic wave equation with additive fractional noise: solvability and global hölder continuity. *preprint arXiv:2305.02425*, May 2023.
- [3097] Li Liu and Carl Mueller. On the extinction of measure-valued critical branching Brownian motion. *Ann. Probab.*, 17(4):1463–1465, 1989.
- [3098] Yanghui Liu, Eulalia Nualart, and Samy Tindel. LAN property for stochastic differential equations with additive fractional noise and continuous time observation. *Stochastic Process. Appl.*, 129(8):2880–2902, 2019.
- [3099] Wei Liu and Michael Röckner. *Stochastic partial differential equations: an introduction*. Universitext. Springer, Cham, 2015.
- [3100] Yanghui Liu, Zachary Selk, and Samy Tindel. Convergence of trapezoid rule to rough integrals. *Ann. Inst. Henri Poincaré Probab. Stat.*, 59(3):1434–1462, 2023.
- [3101] Wei Liu, Kuanhou Tian, and Mohammud Foondun. On some properties of a class of fractional stochastic heat equations. *J. Theoret. Probab.*, 30(4):1310–1333, 2017.
- [3102] Yanghui Liu and Samy Tindel. First-order Euler scheme for SDEs driven by fractional Brownian motions: the rough case. *Ann. Appl. Probab.*, 29(2):758–826, 2019.
- [3103] Yanghui Liu and Samy Tindel. Discrete rough paths and limit theorems. *Ann. Inst. Henri Poincaré Probab. Stat.*, 56(3):1730–1774, 2020.
- [3104] Quansheng Liu and Frédérique Watbled. Exponential inequalities for martingales and asymptotic properties of the free energy of directed polymers in a random environment. *Stochastic Process. Appl.*, 119(10):3101–3132, 2009.
- [3105] Kai Liu and Tusheng Zhang. A large deviation principle of retarded Ornstein-Uhlenbeck processes driven by Lévy noise. *Stoch. Anal. Appl.*, 32(5):889–910, 2014.
- [3106] Yue Liu. Existence and blow up of solutions of a nonlinear Pochhammer-Chree equation. *Indiana Univ. Math. J.*, 45(3):797–816, 1996.
- [3107] Quansheng Liu. Fixed points of a generalized smoothing transformation and applications to the branching random walk. *Adv. in Appl. Probab.*, 30(1):85–112, 1998.
- [3108] J. David Logan. *Applied mathematics*. John Wiley & Sons, Inc., Hoboken, NJ, fourth edition, 2013.
- [3109] Wei-Liem Loh, Saifei Sun, and Jun Wen. On fixed-domain asymptotics, parameter estimation and isotropic Gaussian random fields with Matérn covariance functions. *Ann. Statist.*, 49(6):3127–3152, 2021.
- [3110] Martin Lohmann, Gordon Slade, and Benjamin C. Wallace. Critical two-point function for long-range  $O(n)$  models below the upper critical dimension. *J. Stat. Phys.*, 169(6):1132–1161, 2017.
- [3111] Wolfgang Löhr, Leonid Mytnik, and Anita Winter. The Aldous chain on cladograms in the diffusion limit. *Ann. Probab.*, 48(5):2565–2590, 2020.



- [3112] A. Lorenzi and E. Sinestrari. An inverse problem in the theory of materials with memory. *Nonlinear Anal.*, 12(12):1317–1335, 1988.
- [3113] S. V. Lototsky. Small ball probabilities for the infinite-dimensional Ornstein-Uhlenbeck process in Sobolev spaces. *Stoch. Partial Differ. Equ. Anal. Comput.*, 5(2):192–219, 2017.
- [3114] Martin Lotz, Michael B. McCoy, Ivan Nourdin, Giovanni Peccati, and Joel A. Tropp. Concentration of the intrinsic volumes of a convex body. In *Geometric aspects of functional analysis. Vol. II*, volume 2266 of *Lecture Notes in Math.*, pages 139–167. Springer, Cham, [2020] ©2020.
- [3115] Shuwen Lou and Cheng Ouyang. Fractal dimensions of rough differential equations driven by fractional Brownian motions. *Stochastic Process. Appl.*, 126(8):2410–2429, 2016.
- [3116] Shuwen Lou and Cheng Ouyang. Local times of stochastic differential equations driven by fractional Brownian motions. *Stochastic Process. Appl.*, 127(11):3643–3660, 2017.
- [3117] Nana Luan and Yimin Xiao. Chung’s law of the iterated logarithm for anisotropic Gaussian random fields. *Statist. Probab. Lett.*, 80(23-24):1886–1895, 2010.
- [3118] Nana Luan and Yimin Xiao. Spectral conditions for strong local nondeterminism and exact Hausdorff measure of ranges of Gaussian random fields. *J. Fourier Anal. Appl.*, 18(1):118–145, 2012.
- [3119] Eyal Lubetzky, Chris Thornett, and Ofer Zeitouni. Maximum of branching Brownian motion in a periodic environment. *Ann. Inst. Henri Poincaré Probab. Stat.*, 58(4):2065–2093, 2022.
- [3120] Eugene Lukacs. *Characteristic functions*. Hafner Publishing Co., New York, 1970. Second edition, revised and enlarged.
- [3121] Alessandra Lunardi. *Analytic semigroups and optimal regularity in parabolic problems*. Modern Birkhäuser Classics. Birkhäuser/Springer Basel AG, Basel, 1995. [2013 reprint of the 1995 original] [MR1329547].
- [3122] J. M. Luttinger. The asymptotic evaluation of a class of path integrals. II. *J. Math. Phys.*, 24(8):2070–2073, 1983.
- [3123] Dimitris Lygkonis and Nikos Zygouras. Edwards-Wilkinson fluctuations for the directed polymer in the full  $L^2$ -regime for dimensions  $d \geq 3$ . *Ann. Inst. Henri Poincaré Probab. Stat.*, 58(1):65–104, 2022.
- [3124] Terry J. Lyons, Michael Caruana, and Thierry Lévy. *Differential equations driven by rough paths*, volume 1908 of *Lecture Notes in Mathematics*. Springer, Berlin, 2007. Lectures from the 34th Summer School on Probability Theory held in Saint-Flour, July 6–24, 2004, With an introduction concerning the Summer School by Jean Picard.
- [3125] Russell Lyons, Robin Pemantle, and Yuval Peres. Biased random walks on Galton-Watson trees. *Probab. Theory Related Fields*, 106(2):249–264, 1996.
- [3126] Russell Lyons and Yuval Peres. *Probability on trees and networks*, volume 42 of *Cambridge Series in Statistical and Probabilistic Mathematics*. Cambridge University Press, New York, 2016.
- [3127] Terry Lyons and Zhongmin Qian. *System control and rough paths*. Oxford Mathematical Monographs. Oxford University Press, Oxford, 2002. Oxford Science Publications.
- [3128] Terry Lyons and Ofer Zeitouni. Conditional exponential moments for iterated Wiener integrals. *Ann. Probab.*, 27(4):1738–1749, 1999.
- [3129] Russell Lyons. Random walks and percolation on trees. *Ann. Probab.*, 18(3):931–958, 1990.

- [3130] Terry Lyons. On the nonexistence of path integrals. *Proc. Roy. Soc. London Ser. A*, 432(1885):281–290, 1991.
- [3131] Terry J. Lyons. Differential equations driven by rough signals. *Rev. Mat. Iberoamericana*, 14(2):215–310, 1998.
- [3132] Nicholas Ma, David Nualart, and Panqiu Xia. Intermittency for the parabolic Anderson model of Skorohod type driven by a rough noise. *Electron. Commun. Probab.*, 25:Paper No. 48, 10, 2020.
- [3133] Nicholas Ma and David Nualart. Rate of convergence for the weighted Hermite variations of the fractional Brownian motion. *J. Theoret. Probab.*, 33(4):1919–1947, 2020.
- [3134] Zhi Ming Ma and Michael Röckner. *Introduction to the theory of (nonsymmetric) Dirichlet forms*. Universitext. Springer-Verlag, Berlin, 1992.
- [3135] I. G. Macdonald. *Symmetric functions and Hall polynomials*. Oxford Classic Texts in the Physical Sciences. The Clarendon Press, Oxford University Press, New York, second edition, 2015. With contribution by A. V. Zelevinsky and a foreword by Richard Stanley, Reprint of the 2008 paperback edition [MR1354144].
- [3136] I. G. Macdonald. *Symmetric functions and Hall polynomials*. Oxford Mathematical Monographs. The Clarendon Press, Oxford University Press, New York, second edition, 1995. With contributions by A. Zelevinsky, Oxford Science Publications.
- [3137] Thomas Madaule. Maximum of a log-correlated Gaussian field. *Ann. Inst. Henri Poincaré Probab. Stat.*, 51(4):1369–1431, 2015.
- [3138] Neal Madras and Gordon Slade. *The self-avoiding walk*. Probability and its Applications. Birkhäuser Boston, Inc., Boston, MA, 1993.
- [3139] Neal Madras. A lower bound for the end-to-end distance of the self-avoiding walk. *Canad. Math. Bull.*, 57(1):113–118, 2014.
- [3140] Richard L. Magin. Fractional calculus models of complex dynamics in biological tissues. *Comput. Math. Appl.*, 59(5):1586–1593, 2010.
- [3141] J. Magnen and R. Sénéor. The infinite volume limit of the  $\phi_3^4$  model. *Ann. Inst. H. Poincaré Sect. A (N.S.)*, 24(2):95–159, 1976.
- [3142] Jacques Magnen and Jérémie Unterberger. The scaling limit of the KPZ equation in space dimension 3 and higher. *J. Stat. Phys.*, 171(4):543–598, 2018.
- [3143] Pejman Mahboubi. *Intermittency of the Malliavin Derivatives and Regularity of the Densities for a Stochastic Heat Equation*. ProQuest LLC, Ann Arbor, MI, 2012. Thesis (Ph.D.)–University of California, Los Angeles.
- [3144] Vinh Quang Mai, Erkan Nane, Donal O’Regan, and Nguyen Huy Tuan. Terminal value problem for nonlinear parabolic equation with Gaussian white noise. *Electron. Res. Arch.*, 30(4):1374–1413, 2022.
- [3145] P. Maillard, R. Rhodes, V. Vargas, and O. Zeitouni. Liouville heat kernel: regularity and bounds. *Ann. Inst. Henri Poincaré Probab. Stat.*, 52(3):1281–1320, 2016.
- [3146] Pascal Maillard and Ofer Zeitouni. Performance of the Metropolis algorithm on a disordered tree: the Einstein relation. *Ann. Appl. Probab.*, 24(5):2070–2090, 2014.
- [3147] Pascal Maillard and Ofer Zeitouni. Slowdown in branching Brownian motion with inhomogeneous variance. *Ann. Inst. Henri Poincaré Probab. Stat.*, 52(3):1144–1160, 2016.

- [3148] Francesco Mainardi and Rudolf Gorenflo. On Mittag-Leffler-type functions in fractional evolution processes. volume 118, pages 283–299. 2000. Higher transcendental functions and their applications.
- [3149] Francesco Mainardi, Yuri Luchko, and Gianni Pagnini. The fundamental solution of the space-time fractional diffusion equation. *Fract. Calc. Appl. Anal.*, 4(2):153–192, 2001.
- [3150] Francesco Mainardi, Antonio Mura, and Gianni Pagnini. The  $M$ -Wright function in time-fractional diffusion processes: a tutorial survey. *Int. J. Differ. Equ.*, pages Art. ID 104505, 29, 2010.
- [3151] Francesco Mainardi. *Fractional calculus and waves in linear viscoelasticity*. Imperial College Press, London, 2010. An introduction to mathematical models.
- [3152] Andrew J. Majda. The random uniform shear layer: an explicit example of turbulent diffusion with broad tail probability distributions. *Phys. Fluids A*, 5(8):1963–1970, 1993.
- [3153] K. Maleknejad, K. Nouri, and R. Mollapourasl. Investigation on the existence of solutions for some nonlinear functional-integral equations. *Nonlinear Anal.*, 71(12):e1575–e1578, 2009.
- [3154] Dominique Malicet, Ivan Nourdin, Giovanni Peccati, and Guillaume Poly. Squared chaotic random variables: new moment inequalities with applications. *J. Funct. Anal.*, 270(2):649–670, 2016.
- [3155] Paul Malliavin and Eulalia Nualart. Density minoration of a strongly non-degenerated random variable. *J. Funct. Anal.*, 256(12):4197–4214, 2009.
- [3156] Paul Malliavin and David Nualart. Quasi-sure analysis of stochastic flows and Banach space valued smooth functionals on the Wiener space. *J. Funct. Anal.*, 112(2):287–317, 1993.
- [3157] Paul Malliavin and David Nualart. Quasi-sure analysis and Stratonovich anticipative stochastic differential equations. *Probab. Theory Related Fields*, 96(1):45–55, 1993.
- [3158] Paul Malliavin and Anton Thalmaier. *Stochastic calculus of variations in mathematical finance*. Springer Finance. Springer-Verlag, Berlin, 2006.
- [3159] Paul Malliavin. Stochastic calculus of variation and hypoelliptic operators. In *Proceedings of the International Symposium on Stochastic Differential Equations (Res. Inst. Math. Sci., Kyoto Univ., Kyoto, 1976)*, pages 195–263. Wiley, New York-Chichester-Brisbane, 1978.
- [3160] Ulrich Mansmann. The free energy of the Dirac polaron, an explicit solution. *Stochastics Stochastics Rep.*, 34(1-2):93–125, 1991.
- [3161] Xuerong Mao, Glenn Marion, and Eric Renshaw. Environmental Brownian noise suppresses explosions in population dynamics. *Stochastic Process. Appl.*, 97(1):95–110, 2002.
- [3162] Peter March and Timo Seppäläinen. Bounds for least relative vacancy in a simple mosaic process. *SIAM J. Appl. Math.*, 54(2):548–558, 1994.
- [3163] Peter March and Timo Seppäläinen. Large deviations from the almost everywhere central limit theorem. *J. Theoret. Probab.*, 10(4):935–965, 1997.
- [3164] Michael B. Marcus and Jay Rosen. *Markov processes, Gaussian processes, and local times*, volume 100 of *Cambridge Studies in Advanced Mathematics*. Cambridge University Press, Cambridge, 2006.
- [3165] Michael B. Marcus and Jay Rosen. Laws of the iterated logarithm for the local times of symmetric Levy processes and recurrent random walks. *Ann. Probab.*, 22(2):626–658, 1994.
- [3166] Maria C. Mariani, Osei K. Tweneboah, Miguel A. Valles, and Pavel Bezdek. Complex Gleason measures and the Nemytsky operator. *Ann. Math. Sil.*, 33(1):168–209, 2019.

- [3167] Carlo Marinelli, Eulalia Nualart, and Lluís Quer-Sardanyons. Existence and regularity of the density for solutions to semilinear dissipative parabolic SPDEs. *Potential Anal.*, 39(3):287–311, 2013.
- [3168] Carlo Marinelli and Lluís Quer-Sardanyons. Existence of weak solutions for a class of semilinear stochastic wave equations. *SIAM J. Math. Anal.*, 44(2):906–925, 2012.
- [3169] Marcos Mariño. String theory. In *The Oxford handbook of random matrix theory*, pages 641–660. Oxford Univ. Press, Oxford, 2011.
- [3170] A. I. Markushevich. *Theory of functions of a complex variable. Vol. I, II, III*. Chelsea Publishing Co., New York, english edition, 1977. Translated and edited by Richard A. Silverman.
- [3171] David Márquez-Carreras, Carles Rovira, and Samy Tindel. Asymptotic behavior of the magnetization for the perceptron model. *Ann. Inst. H. Poincaré Probab. Statist.*, 42(3):327–342, 2006.
- [3172] David Márquez-Carreras, Carles Rovira, and Samy Tindel. A diluted version of the perceptron model. *Stochastic Process. Appl.*, 117(12):1764–1792, 2007.
- [3173] David Márquez-Carreras, Carles Rovira, and Samy Tindel. A model of continuous time polymer on the lattice. *Commun. Stoch. Anal.*, 5(1):103–120, 2011.
- [3174] David Márquez-Carreras and Marta Sanz-Solé. Small perturbations in a hyperbolic stochastic partial differential equation. *Stochastic Process. Appl.*, 68(1):133–154, 1997.
- [3175] David Márquez-Carreras and Marta Sanz-Solé. Taylor expansion of the density in a stochastic heat equation. volume 49, pages 399–415. 1998. Dedicated to the memory of Fernando Serrano.
- [3176] David Márquez-Carreras and Marta Sanz-Solé. Expansion of the density: a Wiener-chaos approach. *Bernoulli*, 5(2):257–274, 1999.
- [3177] David Márquez-Carreras and Samy Tindel. On exponential moments for functionals defined on the loop group. *Stochastic Anal. Appl.*, 21(6):1333–1352, 2003.
- [3178] Yvan Martel. Complete blow up and global behaviour of solutions of  $u_t - \Delta u = g(u)$ . *Ann. Inst. H. Poincaré C Anal. Non Linéaire*, 15(6):687–723, 1998.
- [3179] Ryan Martin, Cheng Ouyang, and Francois Domagni. ‘Purposely misspecified’ posterior inference on the volatility of a jump diffusion process. *Statist. Probab. Lett.*, 134:106–113, 2018.
- [3180] A. Martin. Small ball asymptotics for the stochastic wave equation. *J. Theoret. Probab.*, 17(3):693–703, 2004.
- [3181] Teresa Martínez and Marta Sanz-Solé. A lattice scheme for stochastic partial differential equations of elliptic type in dimension  $d \geq 4$ . *Appl. Math. Optim.*, 54(3):343–368, 2006.
- [3182] K. Marton. Bounding  $\bar{d}$ -distance by informational divergence: a method to prove measure concentration. *Ann. Probab.*, 24(2):857–866, 1996.
- [3183] K. Marton. A measure concentration inequality for contracting Markov chains. *Geom. Funct. Anal.*, 6(3):556–571, 1996.
- [3184] Katalin Marton. Measure concentration for a class of random processes. *Probab. Theory Related Fields*, 110(3):427–439, 1998.
- [3185] Gisiro Maruyama. The harmonic analysis of stationary stochastic processes. *Mem. Fac. Sci. Kyūsyū Univ. A*, 4:45–106, 1949.

- [3186] Bohdan Maslowski and David Nualart. Evolution equations driven by a fractional Brownian motion. *J. Funct. Anal.*, 202(1):277–305, 2003.
- [3187] Bohdan Maslowski and Jan Seidler. On sequentially weakly Feller solutions to SPDE’s. *Atti Accad. Naz. Lincei Cl. Sci. Fis. Mat. Natur. Rend. Lincei (9) Mat. Appl.*, 10(2):69–78, 1999.
- [3188] Pascal Massart. *Concentration inequalities and model selection*, volume 1896 of *Lecture Notes in Mathematics*. Springer, Berlin, 2007. Lectures from the 33rd Summer School on Probability Theory held in Saint-Flour, July 6–23, 2003, With a foreword by Jean Picard.
- [3189] Kyūya Masuda. Analytic solutions of some nonlinear diffusion equations. *Math. Z.*, 187(1):61–73, 1984.
- [3190] Bertil Matérn. *Spatial variation: Stochastic models and their application to some problems in forest surveys and other sampling investigations*. Statens Skogsforskningsinstitut, Stockholm, 1960. Meddelanden Fran Statens Skogsforskningsinstitut, Band 49, Nr. 5.
- [3191] Bertil Matérn. *Spatial variation: Stochastic models and their application to some problems in forest surveys and other sampling investigations*. Statens Skogsforskningsinstitut, Stockholm, 1960. Meddelanden Fran Statens Skogsforskningsinstitut, Band 49, Nr. 5.
- [3192] Konstantin Matetski, Jeremy Quastel, and Daniel Remenik. The KPZ fixed point. *Acta Math.*, 227(1):115–203, 2021.
- [3193] Pierre Mathieu. Carne-Varopoulos bounds for centered random walks. *Ann. Probab.*, 34(3):987–1011, 2006.
- [3194] Anis Matoussi, Wissal Sabbagh, and Tusheng Zhang. Backward doubly SDEs and semilinear stochastic PDEs in a convex domain. *Stochastic Process. Appl.*, 127(9):2781–2815, 2017.
- [3195] Anis Matoussi, Wissal Sabbagh, and Tusheng Zhang. Large deviation principles of obstacle problems for quasilinear stochastic PDEs. *Appl. Math. Optim.*, 83(2):849–879, 2021.
- [3196] Hiroyuki Matsumoto and Marc Yor. Exponential functionals of Brownian motion. II. Some related diffusion processes. *Probab. Surv.*, 2:348–384, 2005.
- [3197] Pertti Mattila. *Geometry of sets and measures in Euclidean spaces*, volume 44 of *Cambridge Studies in Advanced Mathematics*. Cambridge University Press, Cambridge, 1995. Fractals and rectifiability.
- [3198] Jonathan C. Mattingly and Étienne Pardoux. Malliavin calculus for the stochastic 2D Navier-Stokes equation. *Comm. Pure Appl. Math.*, 59(12):1742–1790, 2006.
- [3199] L. C. Maximon.  $3j, 6j, 9j$  symbols. In *NIST handbook of mathematical functions*, pages 757–766. U.S. Dept. Commerce, Washington, DC, 2010.
- [3200] Svitlana Mayboroda and Marius Mitrea. Sharp estimates for Green potentials on non-smooth domains. *Math. Res. Lett.*, 11(4):481–492, 2004.
- [3201] Eduardo Mayer-Wolf, David Nualart, and Víctor Pérez-Abreu. Large deviations for multiple Wiener-Itô integral processes. In *Séminaire de Probabilités, XXVI*, volume 1526 of *Lecture Notes in Math.*, pages 11–31. Springer, Berlin, 1992.
- [3202] Eddy Mayer-Wolf, Alexander Roitershtein, and Ofer Zeitouni. Limit theorems for one-dimensional transient random walks in Markov environments. *Ann. Inst. H. Poincaré Probab. Statist.*, 40(5):635–659, 2004.
- [3203] E. Mayer-Wolf, M. Zakai, and O. Zeitouni. On the memory length of the optimal nonlinear filter. In *Stochastic differential systems, stochastic control theory and applications (Minneapolis, Minn., 1986)*, volume 10 of *IMA Vol. Math. Appl.*, pages 311–322. Springer, New York, 1988.

- [3204] Eddy Mayer-Wolf, Ofer Zeitouni, and Martin P. W. Zerner. Asymptotics of certain coagulation-fragmentation processes and invariant Poisson-Dirichlet measures. *Electron. J. Probab.*, 7:no. 8, 25, 2002.
- [3205] Eddy Mayer-Wolf and Ofer Zeitouni. Onsager-Machlup functionals for non-trace-class SPDEs. *Probab. Theory Related Fields*, 95(2):199–216, 1993.
- [3206] Eddy Mayer-Wolf and Ofer Zeitouni. The probability of small Gaussian ellipsoids and associated conditional moments. *Ann. Probab.*, 21(1):14–24, 1993.
- [3207] Avi Mayorcas and Harprit Singh. Singular spdes on homogeneous lie groups. *preprint arXiv:2301.05121*, January 2023.
- [3208] V. G. Mazja. Solvability in  $\dot{W}_2^2$  of the Dirichlet problem in a region with a smooth irregular boundary. *Vestnik Leningrad. Univ.*, 22(7):87–95, 1967.
- [3209] V. G. Mazja. The coercivity of the Dirichlet problem in a domain with irregular boundary. *Izv. Vysš. Učebn. Zaved. Matematika*, (4(131)):64–76, 1973.
- [3210] V. G. Mazya and T. O. Shaposhnikova. *Theory of multipliers in spaces of differentiable functions*, volume 23 of *Monographs and Studies in Mathematics*. Pitman (Advanced Publishing Program), Boston, MA, 1985.
- [3211] Laurent Mazliak and Ivan Nourdin. Optimal control for rough differential equations. *Stoch. Dyn.*, 8(1):23–33, 2008.
- [3212] V. Maz’ya, M. Mitrea, and T. Shaposhnikova. The Dirichlet problem in Lipschitz domains for higher order elliptic systems with rough coefficients. *J. Anal. Math.*, 110:167–239, 2010.
- [3213] Vladimir Maz’ya. Boundedness of the gradient of a solution to the Neumann-Laplace problem in a convex domain. *C. R. Math. Acad. Sci. Paris*, 347(9-10):517–520, 2009.
- [3214] G. Mazziotto, L. Stettner, J. Szpirglas, and J. Zabczyk. On impulse control with partial observation. *SIAM J. Control Optim.*, 26(4):964–984, 1988.
- [3215] Barry M. McCoy, Craig A. Tracy, and Tai Tsun Wu. Connection between the KdV equation and the two-dimensional Ising model. *Phys. Lett. A*, 61(5):283–284, 1977.
- [3216] Barry M. McCoy, Craig A. Tracy, and Tai Tsun Wu. Painlevé functions of the third kind. *J. Mathematical Phys.*, 18(5):1058–1092, 1977.
- [3217] John N. McDonald and Neil A. Weiss. *A course in real analysis*. Academic Press, Inc., San Diego, CA, 1999. Biographies by Carol A. Weiss.
- [3218] A. J. McKane. Reformulation of  $n \rightarrow 0$  models using anticommuting scalar fields. *Phys. Lett. A*, 76(1):22–24, 1980.
- [3219] Henry McKean and Victor Moll. *Elliptic curves*. Cambridge University Press, Cambridge, 1997. Function theory, geometry, arithmetic.
- [3220] H. P. McKean, Jr. Brownian motion with a several-dimensional time. *Teor. Veroyatnost. i Primenen.*, 8:357–378, 1963.
- [3221] H. P. McKean, Jr. An exponential formula for solving Boltzmann’s equation for a Maxwellian gas. *J. Combinatorial Theory*, 2:358–382, 1967.
- [3222] H. P. McKean. A limit law for the ground state of Hill’s equation. *J. Statist. Phys.*, 74(5-6):1227–1232, 1994.
- [3223] P. Meakin and R. Jullien. Spatially correlated ballistic deposition. *Europhysics Letters*, 9(1):71, may 1989.

- [3224] Paul Meakin and Remi Jullien. Spatially correlated ballistic deposition on one- and two-dimensional surfaces. *Phys. Rev. A*, 41:983–993, Jan 1990.
- [3225] Paul Meakin, P. Ramanlal, L. M. Sander, and R. C. Ball. Ballistic deposition on surfaces. *Phys. Rev. A*, 34:5091–5103, Dec 1986.
- [3226] Ernesto Medina, Terence Hwa, Mehran Kardar, and Yi Cheng Zhang. Burgers’ equation with correlated noise: renormalization-group analysis and applications to directed polymers and interface growth. *Phys. Rev. A* (3), 39(6):3053–3075, 1989.
- [3227] Mark M. Meerschaert, David A. Benson, Hans-Peter Scheffler, and Boris Baeumer. Stochastic solution of space-time fractional diffusion equations. *Phys. Rev. E* (3), 65(4):041103, 4, 2002.
- [3228] Mark M. Meerschaert, Erkan Nane, and Yimin Xiao. Large deviations for local time fractional Brownian motion and applications. *J. Math. Anal. Appl.*, 346(2):432–445, 2008.
- [3229] Mark M. Meerschaert, Erkan Nane, and Yimin Xiao. Correlated continuous time random walks. *Statist. Probab. Lett.*, 79(9):1194–1202, 2009.
- [3230] Mark M. Meerschaert, Erkan Nane, and P. Vellaisamy. Fractional Cauchy problems on bounded domains. *Ann. Probab.*, 37(3):979–1007, 2009.
- [3231] Mark M. Meerschaert, Erkan Nane, and P. Vellaisamy. Distributed-order fractional diffusions on bounded domains. *J. Math. Anal. Appl.*, 379(1):216–228, 2011.
- [3232] Mark M. Meerschaert, Erkan Nane, and P. Vellaisamy. The fractional Poisson process and the inverse stable subordinator. *Electron. J. Probab.*, 16:no. 59, 1600–1620, 2011.
- [3233] Mark M. Meerschaert, Erkan Nane, and Yimin Xiao. Fractal dimension results for continuous time random walks. *Statist. Probab. Lett.*, 83(4):1083–1093, 2013.
- [3234] Mark M. Meerschaert, Erkan Nane, and P. Vellaisamy. Transient anomalous sub-diffusion on bounded domains. *Proc. Amer. Math. Soc.*, 141(2):699–710, 2013.
- [3235] Mark M. Meerschaert, Erkan Nane, and P. Vellaisamy. Inverse subordinators and time fractional equations. In *Handbook of fractional calculus with applications. Vol. 1*, pages 407–426. De Gruyter, Berlin, 2019.
- [3236] Mark M. Meerschaert and Hans-Peter Scheffler. Limit theorems for continuous-time random walks with infinite mean waiting times. *J. Appl. Probab.*, 41(3):623–638, 2004.
- [3237] Mark M. Meerschaert, René L. Schilling, and Alla Sikorskii. Stochastic solutions for fractional wave equations. *Nonlinear Dynam.*, 80(4):1685–1695, 2015.
- [3238] M. M. Meerschaert and P. Straka. Inverse stable subordinators. *Math. Model. Nat. Phenom.*, 8(2):1–16, 2013.
- [3239] Mark M. Meerschaert, Wensheng Wang, and Yimin Xiao. Fernique-type inequalities and moduli of continuity for anisotropic Gaussian random fields. *Trans. Amer. Math. Soc.*, 365(2):1081–1107, 2013.
- [3240] Baruch Meerson, Eytan Katzav, and Arkady Vilenkin. Large deviations of surface height in the Kardar-Parisi-Zhang equation. *Phys. Rev. Lett.*, 116(7):070601, 5, 2016.
- [3241] Madan Lal Mehta. *Random matrices*, volume 142 of *Pure and Applied Mathematics (Amsterdam)*. Elsevier/Academic Press, Amsterdam, third edition, 2004.
- [3242] Olivier Mejane. Upper bound of a volume exponent for directed polymers in a random environment. *Ann. Inst. H. Poincaré Probab. Statist.*, 40(3):299–308, 2004.

- [3243] Welington de Melo, Bjorn Poonen, Jeremy Quastel, and Anton Zorich. The work of the 2014 Fields medalists. *Notices Amer. Math. Soc.*, 62(11):1334–1349, 2015.
- [3244] Jean Mémin, Yulia Mishura, and Esko Valkeila. Inequalities for the moments of Wiener integrals with respect to a fractional Brownian motion. *Statist. Probab. Lett.*, 51(2):197–206, 2001.
- [3245] M. V. Menshikov. Coincidence of critical points in percolation problems. *Dokl. Akad. Nauk SSSR*, 288(6):1308–1311, 1986.
- [3246] Osvaldo Mendez and Marius Mitrea. The Banach envelopes of Besov and Triebel-Lizorkin spaces and applications to partial differential equations. *J. Fourier Anal. Appl.*, 6(5):503–531, 2000.
- [3247] Xiangqian Meng and Erkan Nane. Space-time fractional stochastic partial differential equations with Lévy noise. *Fract. Calc. Appl. Anal.*, 23(1):224–249, 2020.
- [3248] Olivier Menoukeu-Pamen, Thilo Meyer-Brandis, Torstein Nilssen, Frank Proske, and Tusheng Zhang. A variational approach to the construction and Malliavin differentiability of strong solutions of SDE’s. *Math. Ann.*, 357(2):761–799, 2013.
- [3249] Frank Merle and Hatem Zaag. Optimal estimates for blowup rate and behavior for nonlinear heat equations. *Comm. Pure Appl. Math.*, 51(2):139–196, 1998.
- [3250] Ely Merzbach and David Nualart. Different kinds of two-parameter martingales. *Israel J. Math.*, 52(3):193–208, 1985.
- [3251] Ely Merzbach and David Nualart. A characterization of the spatial Poisson process and changing time. *Ann. Probab.*, 14(4):1380–1390, 1986.
- [3252] Ely Merzbach and David Nualart. A martingale approach to point processes in the plane. *Ann. Probab.*, 16(1):265–274, 1988.
- [3253] Ely Merzbach and David Nualart. Generalized holomorphic processes and differentiability. *J. Theoret. Probab.*, 2(4):419–432, 1989.
- [3254] Ely Merzbach and David Nualart. Markov properties for point processes on the plane. *Ann. Probab.*, 18(1):342–358, 1990.
- [3255] Michel Métivier. *Semimartingales*, volume 2 of *de Gruyter Studies in Mathematics*. Walter de Gruyter & Co., Berlin-New York, 1982. A course on stochastic processes.
- [3256] Ralf Metzler and Joseph Klafter. The restaurant at the end of the random walk: recent developments in the description of anomalous transport by fractional dynamics. *J. Phys. A*, 37(31):R161–R208, 2004.
- [3257] Yves Meyer. Wavelets and operators. In *Analysis at Urbana, Vol. I (Urbana, IL, 1986–1987)*, volume 137 of *London Math. Soc. Lecture Note Ser.*, pages 256–365. Cambridge Univ. Press, Cambridge, 1989.
- [3258] M. Mézard, G. Parisi, N. Sourlas, G. Toulouse, and M. Virasoro. Replica symmetry breaking and the nature of the spin glass phase. *J. Physique*, 45(5):843–854, 1984.
- [3259] Marc Mézard, Giorgio Parisi, and Miguel Angel Virasoro. *Spin glass theory and beyond*, volume 9 of *World Scientific Lecture Notes in Physics*. World Scientific Publishing Co., Inc., Teaneck, NJ, 1987.
- [3260] Carsten Michels.  $\Lambda(p)$ -sets and the limit order of operator ideals. *Math. Nachr.*, 239/240:170–176, 2002.



- [3261] Jebessa B. Mijena and Erkan Nane. Correlation structure of time-changed Pearson diffusions. *Statist. Probab. Lett.*, 90:68–77, 2014.
- [3262] Jebessa B. Mijena and Erkan Nane. Strong analytic solutions of fractional Cauchy problems. *Proc. Amer. Math. Soc.*, 142(5):1717–1731, 2014.
- [3263] Jebessa B. Mijena and Erkan Nane. Space-time fractional stochastic partial differential equations. *Stochastic Process. Appl.*, 125(9):3301–3326, 2015.
- [3264] Jebessa B. Mijena and Erkan Nane. Intermittence and space-time fractional stochastic partial differential equations. *Potential Anal.*, 44(2):295–312, 2016.
- [3265] R. Mikulevicius and B. Rozovskii. A note on Krylov’s  $L_p$ -theory for systems of SPDEs. *Electron. J. Probab.*, 6:no. 12, 35, 2001.
- [3266] R. Mikulevicius and B. L. Rozovskii. Stochastic Navier-Stokes equations for turbulent flows. *SIAM J. Math. Anal.*, 35(5):1250–1310, 2004.
- [3267] R. Mikulevicius and B. L. Rozovskii. Martingale problems for stochastic PDE’s. In *Stochastic partial differential equations: six perspectives*, volume 64 of *Math. Surveys Monogr.*, pages 243–325. Amer. Math. Soc., Providence, RI, 1999.
- [3268] Anna Milian. Comparison theorems for stochastic evolution equations. *Stoch. Stoch. Rep.*, 72(1-2):79–108, 2002.
- [3269] Kenneth S. Miller and Bertram Ross. *An introduction to the fractional calculus and fractional differential equations*. A Wiley-Interscience Publication. John Wiley & Sons, Inc., New York, 1993.
- [3270] Richard K. Miller. *Nonlinear Volterra integral equations*. Mathematics Lecture Note Series. W. A. Benjamin, Inc., Menlo Park, Calif., 1971.
- [3271] Annie Millet and Pierre-Luc Morien. On a nonlinear stochastic wave equation in the plane: existence and uniqueness of the solution. *Ann. Appl. Probab.*, 11(3):922–951, 2001.
- [3272] A. Millet, D. Nualart, and M. Sanz. Integration by parts and time reversal for diffusion processes. *Ann. Probab.*, 17(1):208–238, 1989.
- [3273] Annie Millet, David Nualart, and Marta Sanz. Time reversal for infinite-dimensional diffusions. *Probab. Theory Related Fields*, 82(3):315–347, 1989.
- [3274] Annie Millet, David Nualart, and Marta Sanz. Composition of large deviation principles and applications. In *Stochastic analysis*, pages 383–395. Academic Press, Boston, MA, 1991.
- [3275] A. Millet, D. Nualart, and M. Sanz. Small perturbations for quasilinear anticipating stochastic differential equations. In *Random partial differential equations (Oberwolfach, 1989)*, volume 102 of *Internat. Ser. Numer. Math.*, pages 149–157. Birkhäuser, Basel, 1991.
- [3276] A. Millet, D. Nualart, and M. Sanz. Large deviations for a class of anticipating stochastic differential equations. *Ann. Probab.*, 20(4):1902–1931, 1992.
- [3277] Annie Millet and David Nualart. Théorème de support pour une classe d’équations différentielles stochastiques anticipantes. *C. R. Acad. Sci. Paris Sér. I Math.*, 312(10):743–746, 1991.
- [3278] Annie Millet and David Nualart. Support theorems for a class of anticipating stochastic differential equations. *Stochastics Stochastics Rep.*, 39(1):1–24, 1992.
- [3279] Annie Millet and Marta Sanz-Solé. Approximation and support theorem for a wave equation in two space dimensions. *Bernoulli*, 6(5):887–915, 2000.

- [3280] Annie Millet and Marta Sanz-Solé. Large deviations for rough paths of the fractional Brownian motion. *Ann. Inst. H. Poincaré Probab. Statist.*, 42(2):245–271, 2006.
- [3281] Annie Millet and Marta Sanz-Solé. Approximation of rough paths of fractional Brownian motion. In *Seminar on Stochastic Analysis, Random Fields and Applications V*, volume 59 of *Progr. Probab.*, pages 275–303. Birkhäuser, Basel, 2008.
- [3282] Annie Millet and Marta Sanz-Solé. Global solutions to stochastic wave equations with superlinear coefficients. *Stochastic Process. Appl.*, 139:175–211, 2021.
- [3283] Annie Millet and Marta Sanz-Solé. Un théorème de support pour une équation aux dérivées partielles stochastique hyperbolique. *C. R. Acad. Sci. Paris Sér. I Math.*, 315(5):615–618, 1992.
- [3284] Annie Millet and Marta Sanz-Solé. On the support of a Skorohod anticipating stochastic differential equation. In *Barcelona Seminar on Stochastic Analysis (St. Feliu de Guíxols, 1991)*, volume 32 of *Progr. Probab.*, pages 103–131. Birkhäuser, Basel, 1993.
- [3285] Annie Millet and Marta Sanz-Solé. A simple proof of the support theorem for diffusion processes. In *Séminaire de Probabilités, XXVIII*, volume 1583 of *Lecture Notes in Math.*, pages 36–48. Springer, Berlin, 1994.
- [3286] Annie Millet and Marta Sanz-Solé. The support of the solution to a hyperbolic SPDE. *Probab. Theory Related Fields*, 98(3):361–387, 1994.
- [3287] Annie Millet and Marta Sanz-Solé. Varadhan estimates for the density of the solution to a parabolic stochastic partial differential equation. In *Stochastic analysis and applications (Powys, 1995)*, pages 330–342. World Sci. Publ., River Edge, NJ, 1996.
- [3288] Annie Millet and Marta Sanz-Solé. Points of positive density for the solution to a hyperbolic SPDE. *Potential Anal.*, 7(3):623–659, 1997.
- [3289] Annie Millet and Marta Sanz-Solé. A stochastic wave equation in two space dimension: smoothness of the law. *Ann. Probab.*, 27(2):803–844, 1999.
- [3290] Yu. Mishura and D. Nualart. Weak solutions for stochastic differential equations with additive fractional noise. *Statist. Probab. Lett.*, 70(4):253–261, 2004.
- [3291] Yuliya S. Mishura. *Stochastic calculus for fractional Brownian motion and related processes*, volume 1929 of *Lecture Notes in Mathematics*. Springer-Verlag, Berlin, 2008.
- [3292] Oleksandr Misiats, Oleksandr Stanzhytskyi, and Nung Kwan Yip. Existence and uniqueness of invariant measures for stochastic reaction-diffusion equations in unbounded domains. *J. Theoret. Probab.*, 29(3):996–1026, 2016.
- [3293] Oleksandr Misiats, Oleksandr Stanzhytskyi, and Nung Kwan Yip. Invariant measures for stochastic reaction-diffusion equations with weakly dissipative nonlinearities. *Stochastics*, 92(8):1197–1222, 2020.
- [3294] Itaru Mitoma. Tightness of probabilities on  $C([0, 1]; \mathcal{S}')$  and  $D([0, 1]; \mathcal{S}')$ . *Ann. Probab.*, 11(4):989–999, 1983.
- [3295] Itaru Mitoma. An *infty*-dimensional inhomogeneous Langevin’s equation. *J. Funct. Anal.*, 61(3):342–359, 1985.
- [3296] Dorina Mitrea, Marius Mitrea, and Sylvie Monniaux. The Poisson problem for the exterior derivative operator with Dirichlet boundary condition in nonsmooth domains. *Commun. Pure Appl. Anal.*, 7(6):1295–1333, 2008.

- [3297] Dorina Mitrea, Marius Mitrea, and Lixin Yan. Boundary value problems for the Laplacian in convex and semiconvex domains. *J. Funct. Anal.*, 258(8):2507–2585, 2010.
- [3298] I. Mitrea, M. Mitrea, and M. Wright. Optimal estimates for the inhomogeneous problem for the bi-Laplacian in three-dimensional Lipschitz domains. volume 172, pages 24–134. 2011. Problems in mathematical analysis. No. 51.
- [3299] Dorina Mitrea and Irina Mitrea. On the Besov regularity of conformal maps and layer potentials on nonsmooth domains. *J. Funct. Anal.*, 201(2):380–429, 2003.
- [3300] Marius Mitrea and Michael Taylor. Potential theory on Lipschitz domains in Riemannian manifolds: Sobolev-Besov space results and the Poisson problem. *J. Funct. Anal.*, 176(1):1–79, 2000.
- [3301] Marius Mitrea. Dirichlet integrals and Gaffney-Friedrichs inequalities in convex domains. *Forum Math.*, 13(4):531–567, 2001.
- [3302] Dorina Mitrea. A generalization of Dahlberg’s theorem concerning the regularity of harmonic Green potentials. *Trans. Amer. Math. Soc.*, 360(7):3771–3793, 2008.
- [3303] P. K. Mitter and B. Scoppola. The global renormalization group trajectory in a critical supersymmetric field theory on the lattice  $Z^3$ . *J. Stat. Phys.*, 133(5):921–1011, 2008.
- [3304] S. K. Mitter and O. Zeitouni. An SPDE formulation for image segmentation. In *Stochastic partial differential equations and applications (Trento, 1990)*, volume 268 of *Pitman Res. Notes Math. Ser.*, pages 257–267. Longman Sci. Tech., Harlow, 1992.
- [3305] P. K. Mitter. Erratum to: On a finite range decomposition of the resolvent of a fractional power of the Laplacian [ MR3493191]. *J. Stat. Phys.*, 166(2):453–455, 2017.
- [3306] Akihiko Miyachi. Hardy-Sobolev spaces and maximal functions. *J. Math. Soc. Japan*, 42(1):73–90, 1990.
- [3307] Akihiko Miyachi.  $H^p$  spaces over open subsets of  $\mathbf{R}^n$ . *Studia Math.*, 95(3):205–228, 1990.
- [3308] Akihiko Miyachi. Extension theorems for real variable Hardy and Hardy-Sobolev spaces. In *Harmonic analysis (Sendai, 1990)*, ICM-90 Satell. Conf. Proc., pages 170–182. Springer, Tokyo, 1991.
- [3309] Oana Mocioalca and Frederi Viens. Skorohod integration and stochastic calculus beyond the fractional Brownian scale. *J. Funct. Anal.*, 222(2):385–434, 2005.
- [3310] Pierre van Moerbeke. Random matrix theory and integrable systems. In *The Oxford handbook of random matrix theory*, pages 198–230. Oxford Univ. Press, Oxford, 2011.
- [3311] Salah-Eldin A. Mohammed, Tusheng Zhang, and Huaizhong Zhao. The stable manifold theorem for semilinear stochastic evolution equations and stochastic partial differential equations. *Mem. Amer. Math. Soc.*, 196(917):vi+105, 2008.
- [3312] Salah-Eldin A. Mohammed and Tusheng Zhang. Large deviations for stochastic systems with memory. *Discrete Contin. Dyn. Syst. Ser. B*, 6(4):881–893, 2006.
- [3313] Salah-Eldin A. Mohammed and Tusheng Zhang. The substitution theorem for semilinear stochastic partial differential equations. *J. Funct. Anal.*, 253(1):122–157, 2007.
- [3314] Salah Mohammed and Tusheng Zhang. Anticipating stochastic differential systems with memory. *Stochastic Process. Appl.*, 119(9):2773–2802, 2009.
- [3315] Salah Mohammed and Tusheng Zhang. Dynamics of stochastic 2D Navier-Stokes equations. *J. Funct. Anal.*, 258(10):3543–3591, 2010.

- [3316] Salah Mohammed and Tusheng Zhang. The Burgers equation with affine linear noise: dynamics and stability. *Stochastic Process. Appl.*, 122(4):1887–1916, 2012.
- [3317] Salah Mohammed and Tusheng Zhang. Anticipating stochastic 2D Navier-Stokes equations. *J. Funct. Anal.*, 264(6):1380–1408, 2013.
- [3318] Salah-Eldin A. Mohammed and Tusheng Zhang. Stochastic Burgers equation with random initial velocities: a Malliavin calculus approach. *SIAM J. Math. Anal.*, 45(4):2396–2420, 2013.
- [3319] Stanislav A. Molchanov. Ideas in the theory of random media. *Acta Appl. Math.*, 22(2-3):139–282, 1991.
- [3320] Ditlev Monrad and Holger Rootzén. Small values of Gaussian processes and functional laws of the iterated logarithm. *Probab. Theory Related Fields*, 101(2):173–192, 1995.
- [3321] Andrea Montanari, Daniel Reichman, and Ofer Zeitouni. On the limitation of spectral methods: from the Gaussian hidden clique problem to rank one perturbations of Gaussian tensors. *IEEE Trans. Inform. Theory*, 63(3):1572–1579, 2017.
- [3322] Gregorio Moreno Flores, Jeremy Quastel, and Daniel Remenik. Endpoint distribution of directed polymers in  $1 + 1$  dimensions. *Comm. Math. Phys.*, 317(2):363–380, 2013.
- [3323] Gregorio R. Moreno Flores, Timo Seppäläinen, and Benedek Valkó. Fluctuation exponents for directed polymers in the intermediate disorder regime. *Electron. J. Probab.*, 19:no. 89, 28, 2014.
- [3324] Gregorio R. Moreno Flores. On the (strict) positivity of solutions of the stochastic heat equation. *Ann. Probab.*, 42(4):1635–1643, 2014.
- [3325] S. Moret and D. Nualart. Quadratic covariation and Itô’s formula for smooth nondegenerate martingales. *J. Theoret. Probab.*, 13(1):193–224, 2000.
- [3326] Sílvia Moret and David Nualart. Exponential inequalities for two-parameter martingales. *Statist. Probab. Lett.*, 54(1):13–19, 2001.
- [3327] S. Moret and D. Nualart. Generalization of Itô’s formula for smooth nondegenerate martingales. *Stochastic Process. Appl.*, 91(1):115–149, 2001.
- [3328] Sílvia Moret and David Nualart. Onsager-Machlup functional for the fractional Brownian motion. *Probab. Theory Related Fields*, 124(2):227–260, 2002.
- [3329] J. Moriarty and N. O’Connell. On the free energy of a directed polymer in a Brownian environment. *Markov Process. Related Fields*, 13(2):251–266, 2007.
- [3330] Pierre-Luc Morien. The Hölder and the Besov regularity of the density for the solution of a parabolic stochastic partial differential equation. *Bernoulli*, 5(2):275–298, 1999.
- [3331] A. Morozov. Unitary integrals and related matrix models. In *The Oxford handbook of random matrix theory*, pages 353–375. Oxford Univ. Press, Oxford, 2011.
- [3332] Philip M. Morse and Herman Feshbach. *Methods of theoretical physics. 2 volumes*. McGraw-Hill Book Co., Inc., New York-Toronto-London, 1953.
- [3333] Peter Mörters, Roger Moser, Mathew Penrose, Hartmut Schwetlick, and Johannes Zimmer. *Analysis and stochastics of growth processes and interface models*. Oxford University Press, Oxford, 2008.
- [3334] Minoru Motoo. Proof of the law of iterated logarithm through diffusion equation. *Ann. Inst. Statist. Math.*, 10:21–28, 1958.

- [3335] Thomas S. Mountford and Eulalia Nualart. Level sets of multiparameter Brownian motions. *Electron. J. Probab.*, 9:no. 20, 594–614, 2004.
- [3336] Jean-Christophe Mourrat, Hendrik Weber, and Weijun Xu. Construction of  $\Phi_3^4$  diagrams for pedestrians. In *From particle systems to partial differential equations*, volume 209 of *Springer Proc. Math. Stat.*, pages 1–46. Springer, Cham, 2017.
- [3337] Jean-Christophe Mourrat and Hendrik Weber. Convergence of the two-dimensional dynamic Ising-Kac model to  $\Phi_2^4$ . *Comm. Pure Appl. Math.*, 70(4):717–812, 2017.
- [3338] Jean-Christophe Mourrat and Hendrik Weber. The dynamic  $\Phi_3^4$  model comes down from infinity. *Comm. Math. Phys.*, 356(3):673–753, 2017.
- [3339] Jean-Christophe Mourrat and Hendrik Weber. Global well-posedness of the dynamic  $\Phi^4$  model in the plane. *Ann. Probab.*, 45(4):2398–2476, 2017.
- [3340] Carl Mueller and Kijung Lee. On the discrete heat equation taking values on a tree. *Proc. Amer. Math. Soc.*, 137(4):1467–1478, 2009.
- [3341] Carl Mueller, Leonid Mytnik, and Aurel Stan. The heat equation with time-independent multiplicative stable Lévy noise. *Stochastic Process. Appl.*, 116(1):70–100, 2006.
- [3342] C. Mueller, L. Mytnik, and J. Quastel. Small noise asymptotics of traveling waves. *Markov Process. Related Fields*, 14(3):333–342, 2008.
- [3343] Carl Mueller, Leonid Mytnik, and Jeremy Quastel. Effect of noise on front propagation in reaction-diffusion equations of KPP type. *Invent. Math.*, 184(2):405–453, 2011.
- [3344] Carl Mueller, Leonid Mytnik, and Edwin Perkins. Nonuniqueness for a parabolic SPDE with  $\frac{3}{4} - \epsilon$ -Hölder diffusion coefficients. *Ann. Probab.*, 42(5):2032–2112, 2014.
- [3345] Carl Mueller, Leonid Mytnik, and Edwin Perkins. On the boundary of the support of super-Brownian motion. *Ann. Probab.*, 45(6A):3481–3534, 2017.
- [3346] Carl Mueller, Leonid Mytnik, and Lenya Ryzhik. The speed of a random front for stochastic reaction-diffusion equations with strong noise. *Comm. Math. Phys.*, 384(2):699–732, 2021.
- [3347] Carl Mueller, Eyal Neuman, Michael Salins, and Giang Truong. An improved uniqueness result for a system of SDE related to the stochastic wave equation. *J. Stoch. Anal.*, 1(2):Art. 1, 7, 2020.
- [3348] Carl Mueller and Eyal Neuman. Scaling properties of a moving polymer. *preprint arXiv:2006.07189*, June 2020.
- [3349] Carl Mueller and Eyal Neuman. Scaling properties of a moving polymer. *Ann. Appl. Probab.*, 32(6):4251–4278, 2022.
- [3350] Carl Mueller and Eyal Neuman. Self-repelling elastic manifolds with low dimensional range. *J. Stoch. Anal.*, 3(2):Art. 1, 16, 2022.
- [3351] Carl Mueller and Eyal Neuman. The radius of a self-repelling star polymer. *preprint arXiv:2306.01537*, June 2023.
- [3352] Carl Mueller and David Nualart. Regularity of the density for the stochastic heat equation. *Electron. J. Probab.*, 13:no. 74, 2248–2258, 2008.
- [3353] Carl Mueller and Etienne Pardoux. The critical exponent for a stochastic PDE to hit zero. In *Stochastic analysis, control, optimization and applications*, Systems Control Found. Appl., pages 325–338. Birkhäuser Boston, Boston, MA, 1999.

- [3354] C. Mueller and E. Perkins. Extinction for two parabolic stochastic PDE's on the lattice. *Ann. Inst. H. Poincaré Probab. Statist.*, 36(3):301–338, 2000.
- [3355] Carl Mueller and Edwin A. Perkins. The compact support property for solutions to the heat equation with noise. *Probab. Theory Related Fields*, 93(3):325–358, 1992.
- [3356] Carl Mueller and Walter Rudin. Proper holomorphic self-maps of plane regions. *Complex Variables Theory Appl.*, 17(1-2):113–121, 1991.
- [3357] Carl Mueller and Richard Sowers. Blowup for the heat equation with a noise term. *Probab. Theory Related Fields*, 97(3):287–320, 1993.
- [3358] Carl Mueller and Richard B. Sowers. Random travelling waves for the KPP equation with noise. *J. Funct. Anal.*, 128(2):439–498, 1995.
- [3359] C. Mueller and R. Sowers. Travelling waves for the KPP equation with noise. In *Stochastic analysis (Ithaca, NY, 1993)*, volume 57 of *Proc. Sympos. Pure Math.*, pages 603–609. Amer. Math. Soc., Providence, RI, 1995.
- [3360] C. Mueller and A. Stan. A Heisenberg inequality for stochastic integrals. *J. Theoret. Probab.*, 18(2):291–315, 2005.
- [3361] Carl Mueller and Shannon Starr. The length of the longest increasing subsequence of a random Mallows permutation. *J. Theoret. Probab.*, 26(2):514–540, 2013.
- [3362] C. Mueller and R. Tribe. Hitting properties of a random string. *Electron. J. Probab.*, 7:no. 10, 29, 2002.
- [3363] C. Mueller and R. Tribe. A measure-valued process related to the parabolic Anderson model. In *Seminar on Stochastic Analysis, Random Fields and Applications, III (Ascona, 1999)*, volume 52 of *Progr. Probab.*, pages 219–227. Birkhäuser, Basel, 2002.
- [3364] Carl Mueller and Roger Tribe. A singular parabolic Anderson model. *Electron. J. Probab.*, 9:no. 5, 98–144, 2004.
- [3365] Carl Mueller and Roger Tribe. A phase diagram for a stochastic reaction diffusion system. *Probab. Theory Related Fields*, 149(3-4):561–637, 2011.
- [3366] Carl Mueller and Roger Tribe. A phase transition for a stochastic PDE related to the contact process. *Probab. Theory Related Fields*, 100(2):131–156, 1994.
- [3367] Carl Mueller and Roger Tribe. A stochastic PDE arising as the limit of a long-range contact process, and its phase transition. In *Measure-valued processes, stochastic partial differential equations, and interacting systems (Montreal, PQ, 1992)*, volume 5 of *CRM Proc. Lecture Notes*, pages 175–178. Amer. Math. Soc., Providence, RI, 1994.
- [3368] C. Mueller and R. Tribe. Finite width for a random stationary interface. *Electron. J. Probab.*, 2:no. 7, 27, 1997.
- [3369] Carl Mueller and Giang Truong. Uniqueness of a three-dimensional stochastic differential equation. *Involve*, 13(3):433–444, 2020.
- [3370] Carl E. Mueller and Fred B. Weissler. Hypercontractivity for the heat semigroup for ultraspherical polynomials and on the  $n$ -sphere. *J. Functional Analysis*, 48(2):252–283, 1982.
- [3371] Carl E. Mueller and Fred B. Weissler. Single point blow-up for a general semilinear heat equation. *Indiana Univ. Math. J.*, 34(4):881–913, 1985.
- [3372] Carl Mueller and Zhixin Wu. A connection between the stochastic heat equation and fractional Brownian motion, and a simple proof of a result of Talagrand. *Electron. Commun. Probab.*, 14:55–65, 2009.

- [3373] Carl Mueller and Zhixin Wu. Erratum: A connection between the stochastic heat equation and fractional Brownian motion and a simple proof of a result of Talagrand [mr2481666]. *Electron. Commun. Probab.*, 17:no. 8, 10, 2012.
- [3374] Carl Mueller. The critical parameter for the heat equation with a noise term to blow up in finite time. *Ann. Probab.*, 28(4):1735–1746, 2000.
- [3375] Carl Mueller. Some tools and results for parabolic stochastic partial differential equations. In *A minicourse on stochastic partial differential equations*, volume 1962 of *Lecture Notes in Math.*, pages 111–144. Springer, Berlin, 2009.
- [3376] Carl Mueller. Stochastic PDE from the point of view of particle systems and duality. In *Stochastic analysis: a series of lectures*, volume 68 of *Progr. Probab.*, pages 271–295. Birkhäuser/Springer, Basel, 2015.
- [3377] Carl Eric Mueller. *AN EXTENSION OF STRASSEN’S LAW AND SOME PROBABILISTIC RESULTS IN COMPLEX ANALYSIS*. ProQuest LLC, Ann Arbor, MI, 1979. Thesis (Ph.D.)—University of California, Berkeley.
- [3378] Carl Mueller. A unification of Strassen’s law and Lévy’s modulus of continuity. *Z. Wahrsch. Verw. Gebiete*, 56(2):163–179, 1981.
- [3379] Carl Mueller. A characterization of BMO and  $BMO_\rho$ . *Studia Math.*, 72(1):47–57, 1982.
- [3380] Carl Mueller. Exit times of diffusions. In *Martingale theory in harmonic analysis and Banach spaces (Cleveland, Ohio, 1981)*, volume 939 of *Lecture Notes in Math.*, pages 98–105. Springer, Berlin-New York, 1982.
- [3381] Carl Mueller. Strassen’s law for local time. *Z. Wahrsch. Verw. Gebiete*, 63(1):29–41, 1983.
- [3382] Carl Mueller. A counterexample for Brownian motion on manifolds. In *Geometry of random motion (Ithaca, N.Y., 1987)*, volume 73 of *Contemp. Math.*, pages 217–221. Amer. Math. Soc., Providence, RI, 1988.
- [3383] Carl Mueller. Probability and the equivalence of generalized  $H^p$  spaces. *Indiana Univ. Math. J.*, 38(4):999–1025, 1989.
- [3384] Carl Mueller. A connection between Strassen’s and Donsker-Varadhan’s laws of the iterated logarithm. *Probab. Theory Related Fields*, 87(3):365–388, 1991.
- [3385] Carl Mueller. Limit results for two stochastic partial differential equations. *Stochastics Stochastics Rep.*, 37(3):175–199, 1991.
- [3386] Carl Mueller. Long time existence for the heat equation with a noise term. *Probab. Theory Related Fields*, 90(4):505–517, 1991.
- [3387] Carl Mueller. On the support of solutions to the heat equation with noise. *Stochastics Stochastics Rep.*, 37(4):225–245, 1991.
- [3388] Carl Mueller. On the polynomial hull of two balls. In *The Madison Symposium on Complex Analysis (Madison, WI, 1991)*, volume 137 of *Contemp. Math.*, pages 343–350. Amer. Math. Soc., Providence, RI, 1992.
- [3389] Carl Mueller. Coupling and invariant measures for the heat equation with noise. *Ann. Probab.*, 21(4):2189–2199, 1993.
- [3390] C. Mueller. A modulus for the 3-dimensional wave equation with noise: dealing with a singular kernel. *Canad. J. Math.*, 45(6):1263–1275, 1993.
- [3391] Carl Mueller. Singular initial conditions for the heat equation with a noise term. *Ann. Probab.*, 24(1):377–398, 1996.

- [3392] Carl Mueller. Long time existence for the wave equation with a noise term. *Ann. Probab.*, 25(1):133–151, 1997.
- [3393] Carl Mueller. The heat equation with Lévy noise. *Stochastic Process. Appl.*, 74(1):67–82, 1998.
- [3394] Carl Mueller. Long-time existence for signed solutions of the heat equation with a noise term. *Probab. Theory Related Fields*, 110(1):51–68, 1998.
- [3395] Robb J. Muirhead. *Aspects of multivariate statistical theory*. Wiley Series in Probability and Mathematical Statistics. John Wiley & Sons, Inc., New York, 1982.
- [3396] Chiranjib Mukherjee, Alexander Shamov, and Ofer Zeitouni. Weak and strong disorder for the stochastic heat equation and continuous directed polymers in  $d \geq 3$ . *Electron. Commun. Probab.*, 21:Paper No. 61, 12, 2016.
- [3397] Chiranjib Mukherjee and S. R. S. Varadhan. Brownian occupation measures, compactness and large deviations. *Ann. Probab.*, 44(6):3934–3964, 2016.
- [3398] Sebastian Müller and Martin Sieber. Quantum chaos and quantum graphs. In *The Oxford handbook of random matrix theory*, pages 683–702. Oxford Univ. Press, Oxford, 2011.
- [3399] C. Müller and R. Tribe. Stochastic p.d.e.’s arising from the long range contact and long range voter processes. *Probab. Theory Related Fields*, 102(4):519–545, 1995.
- [3400] N. I. Muskhelishvili. *Singular integral equations*. Dover Publications, Inc., New York, 1992. Boundary problems of function theory and their application to mathematical physics, Translated from the second (1946) Russian edition and with a preface by J. R. M. Radok, Corrected reprint of the 1953 English translation.
- [3401] Leonid Mytnik and Robert J. Adler. Bisexual branching diffusions. *Adv. in Appl. Probab.*, 27(4):980–1018, 1995.
- [3402] Leonid Mytnik and Eyal Neuman. Sample path properties of Volterra processes. *Commun. Stoch. Anal.*, 6(3):359–377, 2012.
- [3403] Leonid Mytnik and Eyal Neuman. Pathwise uniqueness for the stochastic heat equation with Hölder continuous drift and noise coefficients. *Stochastic Process. Appl.*, 125(9):3355–3372, 2015.
- [3404] Leonid Mytnik, Edwin Perkins, and Anja Sturm. On pathwise uniqueness for stochastic heat equations with non-Lipschitz coefficients. *Ann. Probab.*, 34(5):1910–1959, 2006.
- [3405] Leonid Mytnik and Edwin Perkins. Regularity and irregularity of  $(1 + \beta)$ -stable super-Brownian motion. *Ann. Probab.*, 31(3):1413–1440, 2003.
- [3406] Leonid Mytnik and Edwin Perkins. Pathwise uniqueness for stochastic heat equations with Hölder continuous coefficients: the white noise case. *Probab. Theory Related Fields*, 149(1-2):1–96, 2011.
- [3407] Leonid Mytnik and Edwin Perkins. The dimension of the boundary of super-Brownian motion. *Probab. Theory Related Fields*, 174(3-4):821–885, 2019.
- [3408] Leonid Mytnik, Jean-Michel Roquejoffre, and Lenya Ryzhik. Fisher-KPP equation with small data and the extremal process of branching Brownian motion. *Adv. Math.*, 396:Paper No. 108106, 58, 2022.
- [3409] Leonid Mytnik and Segev Shlomov. General contact process with rapid stirring. *ALEA Lat. Am. J. Probab. Math. Stat.*, 18(1):17–33, 2021.



- [3410] L. Mytnik and J. Villa. Self-intersection local time of  $(\alpha, d, \beta)$ -superprocess. *Ann. Inst. H. Poincaré Probab. Statist.*, 43(4):481–507, 2007.
- [3411] Leonid Mytnik and Vitali Wachtel. Multifractal analysis of superprocesses with stable branching in dimension one. *Ann. Probab.*, 43(5):2763–2809, 2015.
- [3412] Leonid Mytnik and Vitali Wachtel. *Regularity and irregularity of superprocesses with  $(1 + \beta)$ -stable branching mechanism*. SpringerBriefs in Probability and Mathematical Statistics. Springer, Cham, 2016.
- [3413] L. Mytnik and K.-N. Xiang. Tanaka formulae for  $(\alpha, d, \beta)$ -superprocesses. *J. Theoret. Probab.*, 17(2):483–502, 2004.
- [3414] Leonid Mytnik, Jie Xiong, and Ofer Zeitouni. Snake representation of a superprocess in random environment. *ALEA Lat. Am. J. Probab. Math. Stat.*, 8:335–378, 2011.
- [3415] Leonid Mytnik and Jie Xiong. Local extinction for superprocesses in random environments. *Electron. J. Probab.*, 12:no. 50, 1349–1378, 2007.
- [3416] Leonid Mytnik and Jie Xiong. Well-posedness of the martingale problem for superprocess with interaction. *Illinois J. Math.*, 59(2):485–497, 2015.
- [3417] Leonid Mytnik. Stochastic partial differential equation driven by stable noise. *Probab. Theory Related Fields*, 123(2):157–201, 2002.
- [3418] Leonid Mytnik. Superprocesses in random environments. *Ann. Probab.*, 24(4):1953–1978, 1996.
- [3419] Leonid Mytnik. Collision measure and collision local time for  $(\alpha, d, \beta)$  superprocesses. *J. Theoret. Probab.*, 11(3):733–763, 1998.
- [3420] Leonid Mytnik. Uniqueness for a mutually catalytic branching model. *Probab. Theory Related Fields*, 112(2):245–253, 1998.
- [3421] Leonid Mytnik. Weak uniqueness for the heat equation with noise. *Ann. Probab.*, 26(3):968–984, 1998.
- [3422] Leonid Mytnik. Uniqueness for a competing species model. *Canad. J. Math.*, 51(2):372–448, 1999.
- [3423] Ali Naddaf and Thomas Spencer. On homogenization and scaling limit of some gradient perturbations of a massless free field. *Comm. Math. Phys.*, 183(1):55–84, 1997.
- [3424] Andrea R. Nahmod, Tadahiro Oh, Luc Rey-Bellet, and Gigliola Staffilani. Invariant weighted Wiener measures and almost sure global well-posedness for the periodic derivative NLS. *J. Eur. Math. Soc. (JEMS)*, 14(4):1275–1330, 2012.
- [3425] Shuta Nakajima and Makoto Nakashima. Fluctuations of two-dimensional stochastic heat equation and KPZ equation in subcritical regime for general initial conditions. *Electron. J. Probab.*, 28:Paper No. 1, 38, 2023.
- [3426] Yu Nakayama. Liouville field theory: a decade after the revolution. *Internat. J. Modern Phys. A*, 19(17-18):2771–2930, 2004.
- [3427] Erkan Nane and Yinan Ni. Stochastic solution of fractional Fokker-Planck equations with space-time-dependent coefficients. *J. Math. Anal. Appl.*, 442(1):103–116, 2016.
- [3428] Erkan Nane and Yinan Ni. Stability of the solution of stochastic differential equation driven by time-changed Lévy noise. *Proc. Amer. Math. Soc.*, 145(7):3085–3104, 2017.

- [3429] Erkan Nane and Yinan Ni. Path stability of stochastic differential equations driven by time-changed Lévy noises. *ALEA Lat. Am. J. Probab. Math. Stat.*, 15(1):479–507, 2018.
- [3430] Erkan Nane, Eze R. Nwaeze, and McSylvester Ejighikeme Omaba. Asymptotic behaviour of solution and non-existence of global solution to a class of conformable time-fractional stochastic equation. *Statist. Probab. Lett.*, 163:108792, 10, 2020.
- [3431] Erkan Nane, Nguyen Hoang Tuan, and Nguyen Huy Tuan. A random regularized approximate solution of the inverse problem for Burgers’ equation. *Statist. Probab. Lett.*, 132:46–54, 2018.
- [3432] Erkan Nane and Nguyen Huy Tuan. Approximate solutions of inverse problems for nonlinear space fractional diffusion equations with randomly perturbed data. *SIAM/ASA J. Uncertain. Quantif.*, 6(1):302–338, 2018.
- [3433] Erkan Nane, Dongsheng Wu, and Yimin Xiao.  $\alpha$ -time fractional Brownian motion: PDE connections and local times. *ESAIM Probab. Stat.*, 16:1–24, 2012.
- [3434] Erkan Nane, Yimin Xiao, and Aklilu Zeleke. A strong law of large numbers with applications to self-similar stable processes. *Acta Sci. Math. (Szeged)*, 76(3-4):697–711, 2010.
- [3435] Erkan Nane, Yimin Xiao, and Aklilu Zeleke. Strong laws of large numbers for arrays of random variables and stable random fields. *J. Math. Anal. Appl.*, 484(1):123737, 20, 2020.
- [3436] Erkan Nane. Iterated Brownian motion in parabola-shaped domains. *Potential Anal.*, 24(2):105–123, 2006.
- [3437] Erkan Nane. Iterated Brownian motion in bounded domains in  $R^n$ . *Stochastic Process. Appl.*, 116(6):905–916, 2006.
- [3438] Erkan Nane. *Iterated Brownian motion: Lifetime asymptotics and isoperimetric-type inequalities*. ProQuest LLC, Ann Arbor, MI, 2006. Thesis (Ph.D.)–Purdue University.
- [3439] Erkan Nane. Laws of the iterated logarithm for  $\alpha$ -time Brownian motion. *Electron. J. Probab.*, 11:no. 18, 434–459, 2006.
- [3440] Erkan Nane. Lifetime asymptotics of iterated Brownian motion in  $R^n$ . *ESAIM Probab. Stat.*, 11:147–160, 2007.
- [3441] Erkan Nane. Higher order PDE’s and iterated processes. *Trans. Amer. Math. Soc.*, 360(5):2681–2692, 2008.
- [3442] Erkan Nane. Isoperimetric-type inequalities for iterated Brownian motion in  $R^n$ . *Statist. Probab. Lett.*, 78(1):90–95, 2008.
- [3443] Erkan Nane. Symmetric  $\alpha$ -stable subordinators and Cauchy problems. *Int. J. Pure Appl. Math.*, 42(2):217–225, 2008.
- [3444] Erkan Nane. Laws of the iterated logarithm for a class of iterated processes. *Statist. Probab. Lett.*, 79(16):1744–1751, 2009.
- [3445] Erkan Nane. Stochastic solutions of a class of higher order Cauchy problems in  $R^d$ . *Stoch. Dyn.*, 10(3):341–366, 2010.
- [3446] Erkan Nane. Fractional Cauchy problems on bounded domains: survey of recent results. In *Fractional dynamics and control*, pages 185–198. Springer, New York, 2012.
- [3447] Rajamani S. Narayanan, John Palmer, and Craig A. Tracy. Some isomonodromy problems in hyperbolic space. In *Painlevé transcendents (Sainte-Adèle, PQ, 1990)*, volume 278 of *NATO Adv. Sci. Inst. Ser. B: Phys.*, pages 407–423. Plenum, New York, 1992.

- [3448] Rajamani Narayanan and Craig A. Tracy. Holonomic quantum field theory of bosons in the Poincaré disk and the zero curvature limit. *Nuclear Phys. B*, 340(2-3):568–594, 1990.
- [3449] Hayato Nawa. Asymptotic and limiting profiles of blowup solutions of the nonlinear Schrödinger equation with critical power. *Comm. Pure Appl. Math.*, 52(2):193–270, 1999.
- [3450] Tristan Needham. *Visual complex analysis*. The Clarendon Press, Oxford University Press, New York, 1997.
- [3451] J. M. A. M. van Neerven and J. Zabczyk. Norm discontinuity of Ornstein-Uhlenbeck semigroups. *Semigroup Forum*, 59(3):389–403, 1999.
- [3452] Jan van Neerven. *The adjoint of a semigroup of linear operators*, volume 1529 of *Lecture Notes in Mathematics*. Springer-Verlag, Berlin, 1992.
- [3453] Edward Nelson. *Dynamical theories of Brownian motion*. Princeton University Press, Princeton, N.J., 1967.
- [3454] Yu. Netrusov and Yu. Safarov. Weyl asymptotic formula for the Laplacian on domains with rough boundaries. *Comm. Math. Phys.*, 253(2):481–509, 2005.
- [3455] A. Neuenkirch, I. Nourdin, and S. Tindel. Delay equations driven by rough paths. *Electron. J. Probab.*, 13:no. 67, 2031–2068, 2008.
- [3456] A. Neuenkirch, I. Nourdin, A. Rößler, and S. Tindel. Trees and asymptotic expansions for fractional stochastic differential equations. *Ann. Inst. Henri Poincaré Probab. Stat.*, 45(1):157–174, 2009.
- [3457] Andreas Neuenkirch and Ivan Nourdin. Exact rate of convergence of some approximation schemes associated to SDEs driven by a fractional Brownian motion. *J. Theoret. Probab.*, 20(4):871–899, 2007.
- [3458] A. Neuenkirch, S. Tindel, and J. Unterberger. Discretizing the fractional Lévy area. *Stochastic Process. Appl.*, 120(2):223–254, 2010.
- [3459] Andreas Neuenkirch and Samy Tindel. A least square-type procedure for parameter estimation in stochastic differential equations with additive fractional noise. *Stat. Inference Stoch. Process.*, 17(1):99–120, 2014.
- [3460] Rolf Nevanlinna and V. Paatero. *Introduction to complex analysis*. Addison-Wesley Publishing Co., Reading, Mass.-London-Don Mills, Ont., 1969. Translated from the German by T. Kövari and G. S. Goodman.
- [3461] J. Neveu. Multiplicative martingales for spatial branching processes. In *Seminar on Stochastic Processes, 1987 (Princeton, NJ, 1987)*, volume 15 of *Progr. Probab. Statist.*, pages 223–242. Birkhäuser Boston, Boston, MA, 1988.
- [3462] Charles M. Newman and Marcelo S. T. Piza. Divergence of shape fluctuations in two dimensions. *Ann. Probab.*, 23(3):977–1005, 1995.
- [3463] Gabriel Nguetseng. A general convergence result for a functional related to the theory of homogenization. *SIAM J. Math. Anal.*, 20(3):608–623, 1989.
- [3464] Wei-Ming Ni, Paul E. Sacks, and John Tavantzis. On the asymptotic behavior of solutions of certain quasilinear parabolic equations. *J. Differential Equations*, 54(1):97–120, 1984.
- [3465] Mihai Nica, Jeremy Quastel, and Daniel Remenik. One-sided reflected Brownian motions and the KPZ fixed point. *Forum Math. Sigma*, 8:Paper No. e63, 16, 2020.
- [3466] Mihai Nica, Jeremy Quastel, and Daniel Remenik. Solution of the Kolmogorov equation for TASEP. *Ann. Probab.*, 48(5):2344–2358, 2020.

- [3467] Constantin P. Niculescu and Lars-Erik Persson. *Convex functions and their applications*. CMS Books in Mathematics/Ouvrages de Mathématiques de la SMC. Springer, Cham, 2018. A contemporary approach, Second edition of [ MR2178902].
- [3468] Bernard Nienhuis. Exact critical point and critical exponents of  $O(n)$  models in two dimensions. *Phys. Rev. Lett.*, 49(15):1062–1065, 1982.
- [3469] Bernard Nienhuis. Coulomb gas formulation of two-dimensional phase transitions. In *Phase transitions and critical phenomena, Vol. 11*, pages 1–53. Academic Press, London, 1987.
- [3470] Jing Niu and Ping Li. Numerical algorithm for the third-order partial differential equation with three-point boundary value problem. *Abstr. Appl. Anal.*, pages Art. ID 630671, 7, 2014.
- [3471] J. M. Noble. Evolution equation with Gaussian potential. *Nonlinear Anal.*, 28(1):103–135, 1997.
- [3472] Salim Noredine and Ivan Nourdin. On the Gaussian approximation of vector-valued multiple integrals. *J. Multivariate Anal.*, 102(6):1008–1017, 2011.
- [3473] Ilkka Norros, Esko Valkeila, and Jorma Virtamo. An elementary approach to a Girsanov formula and other analytical results on fractional Brownian motions. *Bernoulli*, 5(4):571–587, 1999.
- [3474] Ivan Nourdin, David Nualart, and Ciprian A. Tudor. Central and non-central limit theorems for weighted power variations of fractional Brownian motion. *Ann. Inst. Henri Poincaré Probab. Stat.*, 46(4):1055–1079, 2010.
- [3475] Ivan Nourdin, David Nualart, and Guillaume Poly. Absolute continuity and convergence of densities for random vectors on Wiener chaos. *Electron. J. Probab.*, 18:no. 22, 19, 2013.
- [3476] Ivan Nourdin, David Nualart, and Rola Zintout. Multivariate central limit theorems for averages of fractional Volterra processes and applications to parameter estimation. *Stat. Inference Stoch. Process.*, 19(2):219–234, 2016.
- [3477] Ivan Nourdin, David Nualart, and Giovanni Peccati. Quantitative stable limit theorems on the Wiener space. *Ann. Probab.*, 44(1):1–41, 2016.
- [3478] Ivan Nourdin, David Nualart, and Giovanni Peccati. Strong asymptotic independence on Wiener chaos. *Proc. Amer. Math. Soc.*, 144(2):875–886, 2016.
- [3479] Ivan Nourdin, David Nualart, and Giovanni Peccati. The Breuer-Major theorem in total variation: improved rates under minimal regularity. *Stochastic Process. Appl.*, 131:1–20, 2021.
- [3480] Ivan Nourdin and David Nualart. Central limit theorems for multiple Skorokhod integrals. *J. Theoret. Probab.*, 23(1):39–64, 2010.
- [3481] Ivan Nourdin and David Nualart. Fisher information and the fourth moment theorem. *Ann. Inst. Henri Poincaré Probab. Stat.*, 52(2):849–867, 2016.
- [3482] Ivan Nourdin and David Nualart. The functional Breuer-Major theorem. *Probab. Theory Related Fields*, 176(1-2):203–218, 2020.
- [3483] Ivan Nourdin, Giovanni Peccati, and Gesine Reinert. Second order Poincaré inequalities and CLTs on Wiener space. *J. Funct. Anal.*, 257(2):593–609, 2009.
- [3484] Ivan Nourdin, Giovanni Peccati, and Gesine Reinert. Invariance principles for homogeneous sums: universality of Gaussian Wiener chaos. *Ann. Probab.*, 38(5):1947–1985, 2010.

- [3485] Ivan Nourdin, Giovanni Peccati, and Anthony Réveillac. Multivariate normal approximation using Stein’s method and Malliavin calculus. *Ann. Inst. Henri Poincaré Probab. Stat.*, 46(1):45–58, 2010.
- [3486] Ivan Nourdin, Giovanni Peccati, and Gesine Reinert. Stein’s method and stochastic analysis of Rademacher functionals. *Electron. J. Probab.*, 15:no. 55, 1703–1742, 2010.
- [3487] Ivan Nourdin, Giovanni Peccati, and Mark Podolskij. Quantitative Breuer-Major theorems. *Stochastic Process. Appl.*, 121(4):793–812, 2011.
- [3488] Ivan Nourdin, Giovanni Peccati, and Roland Speicher. Multi-dimensional semicircular limits on the free Wigner chaos. In *Seminar on Stochastic Analysis, Random Fields and Applications VII*, volume 67 of *Progr. Probab.*, pages 211–221. Birkhäuser/Springer, Basel, 2013.
- [3489] Ivan Nourdin, Giovanni Peccati, and Frederi G. Viens. Comparison inequalities on Wiener space. *Stochastic Process. Appl.*, 124(4):1566–1581, 2014.
- [3490] Ivan Nourdin, Giovanni Peccati, and Yvik Swan. Entropy and the fourth moment phenomenon. *J. Funct. Anal.*, 266(5):3170–3207, 2014.
- [3491] Ivan Nourdin, Giovanni Peccati, Guillaume Poly, and Rosaria Simone. Classical and free fourth moment theorems: universality and thresholds. *J. Theoret. Probab.*, 29(2):653–680, 2016.
- [3492] Ivan Nourdin, Giovanni Peccati, Guillaume Poly, and Rosaria Simone. Multidimensional limit theorems for homogeneous sums: a survey and a general transfer principle. *ESAIM Probab. Stat.*, 20:293–308, 2016.
- [3493] Ivan Nourdin, Giovanni Peccati, and Xiaochuan Yang. Berry-Esseen bounds in the Breuer-Major CLT and Gebelein’s inequality. *Electron. Commun. Probab.*, 24:Paper No. 34, 12, 2019.
- [3494] Ivan Nourdin, Giovanni Peccati, and Maurizia Rossi. Nodal statistics of planar random waves. *Comm. Math. Phys.*, 369(1):99–151, 2019.
- [3495] Ivan Nourdin, Giovanni Peccati, and Xiaochuan Yang. Restricted hypercontractivity on the Poisson space. *Proc. Amer. Math. Soc.*, 148(8):3617–3632, 2020.
- [3496] Ivan Nourdin, Giovanni Peccati, and Stéphane Seuret. Sojourn time dimensions of fractional Brownian motion. *Bernoulli*, 26(3):1619–1634, 2020.
- [3497] Ivan Nourdin and Giovanni Peccati. Weighted power variations of iterated Brownian motion. *Electron. J. Probab.*, 13:no. 43, 1229–1256, 2008.
- [3498] Ivan Nourdin and Giovanni Peccati. Noncentral convergence of multiple integrals. *Ann. Probab.*, 37(4):1412–1426, 2009.
- [3499] Ivan Nourdin and Giovanni Peccati. Stein’s method and exact Berry-Esseen asymptotics for functionals of Gaussian fields. *Ann. Probab.*, 37(6):2231–2261, 2009.
- [3500] Ivan Nourdin and Giovanni Peccati. Stein’s method on Wiener chaos. *Probab. Theory Related Fields*, 145(1-2):75–118, 2009.
- [3501] Ivan Nourdin and Giovanni Peccati. Cumulants on the Wiener space. *J. Funct. Anal.*, 258(11):3775–3791, 2010.
- [3502] Ivan Nourdin and Giovanni Peccati. Stein’s method meets Malliavin calculus: a short survey with new estimates. In *Recent development in stochastic dynamics and stochastic analysis*, volume 8 of *Interdiscip. Math. Sci.*, pages 207–236. World Sci. Publ., Hackensack, NJ, 2010.

- [3503] Ivan Nourdin and Giovanni Peccati. Universal Gaussian fluctuations of non-Hermitian matrix ensembles: from weak convergence to almost sure CLTs. *ALEA Lat. Am. J. Probab. Math. Stat.*, 7:341–375, 2010.
- [3504] Ivan Nourdin and Giovanni Peccati. *Normal approximations with Malliavin calculus*, volume 192 of *Cambridge Tracts in Mathematics*. Cambridge University Press, Cambridge, 2012. From Stein’s method to universality.
- [3505] Ivan Nourdin and Giovanni Peccati. Poisson approximations on the free Wigner chaos. *Ann. Probab.*, 41(4):2709–2723, 2013.
- [3506] Ivan Nourdin and Giovanni Peccati. The optimal fourth moment theorem. *Proc. Amer. Math. Soc.*, 143(7):3123–3133, 2015.
- [3507] Ivan Nourdin and Giovanni Peccati. Fourth moments and products: unified estimates. In *Convexity and concentration*, volume 161 of *IMA Vol. Math. Appl.*, pages 285–295. Springer, New York, 2017.
- [3508] Ivan Nourdin and Guillaume Poly. Convergence in law in the second Wiener/Wigner chaos. *Electron. Commun. Probab.*, 17:no. 36, 12, 2012.
- [3509] Ivan Nourdin and Guillaume Poly. Erratum: Convergence in law in the second Wiener/Wigner chaos [mr2970700]. *Electron. Commun. Probab.*, 17:no. 54, 3, 2012.
- [3510] Ivan Nourdin and Guillaume Poly. Convergence in total variation on Wiener chaos. *Stochastic Process. Appl.*, 123(2):651–674, 2013.
- [3511] Ivan Nourdin and Guillaume Poly. An invariance principle under the total variation distance. *Stochastic Process. Appl.*, 125(6):2190–2205, 2015.
- [3512] Ivan Nourdin and Guillaume Poly. Convergence in law implies convergence in total variation for polynomials in independent Gaussian, gamma or beta random variables. In *High dimensional probability VII*, volume 71 of *Progr. Probab.*, pages 381–394. Springer, [Cham], 2016.
- [3513] Ivan Nourdin and Fei Pu. Gaussian fluctuation for Gaussian Wishart matrices of overall correlation. *Statist. Probab. Lett.*, 181:Paper No. 109269, 11, 2022.
- [3514] Ivan Nourdin, Anthony Réveillac, and Jason Swanson. The weak Stratonovich integral with respect to fractional Brownian motion with Hurst parameter  $1/6$ . *Electron. J. Probab.*, 15:no. 70, 2117–2162, 2010.
- [3515] Ivan Nourdin and Anthony Réveillac. Asymptotic behavior of weighted quadratic variations of fractional Brownian motion: the critical case  $H = 1/4$ . *Ann. Probab.*, 37(6):2200–2230, 2009.
- [3516] Ivan Nourdin and Jan Rosiński. Asymptotic independence of multiple Wiener-Itô integrals and the resulting limit laws. *Ann. Probab.*, 42(2):497–526, 2014.
- [3517] Ivan Nourdin and Thomas Simon. On the absolute continuity of Lévy processes with drift. *Ann. Probab.*, 34(3):1035–1051, 2006.
- [3518] Ivan Nourdin and Thomas Simon. On the absolute continuity of one-dimensional SDEs driven by a fractional Brownian motion. *Statist. Probab. Lett.*, 76(9):907–912, 2006.
- [3519] Ivan Nourdin and Thomas Simon. Correcting Newton-Côtes integrals by Lévy areas. *Bernoulli*, 13(3):695–711, 2007.
- [3520] Ivan Nourdin and Murad S. Taqqu. Central and non-central limit theorems in a free probability setting. *J. Theoret. Probab.*, 27(1):220–248, 2014.

- [3521] Ivan Nourdin and T. T. Diu Tran. Statistical inference for Vasicek-type model driven by Hermite processes. *Stochastic Process. Appl.*, 129(10):3774–3791, 2019.
- [3522] Ivan Nourdin and Ciprian A. Tudor. Some linear fractional stochastic equations. *Stochastics*, 78(2):51–65, 2006.
- [3523] Ivan Nourdin and Frederi G. Viens. Density formula and concentration inequalities with Malliavin calculus. *Electron. J. Probab.*, 14:no. 78, 2287–2309, 2009.
- [3524] Ivan Nourdin and Raghid Zeineddine. An Itô-type formula for the fractional Brownian motion in Brownian time. *Electron. J. Probab.*, 19:No. 99, 15, 2014.
- [3525] Ivan Nourdin and Guangqu Zheng. Exchangeable pairs on Wiener chaos. In *High dimensional probability VIII—the Oaxaca volume*, volume 74 of *Progr. Probab.*, pages 277–303. Birkhäuser/Springer, Cham, [2019] ©2019.
- [3526] Ivan Nourdin and Rola Zintout. Cross-variation of Young integral with respect to long-memory fractional Brownian motions. *Probab. Math. Statist.*, 36(1):35–46, 2016.
- [3527] Ivan Nourdin. Asymptotic behavior of weighted quadratic and cubic variations of fractional Brownian motion. *Ann. Probab.*, 36(6):2159–2175, 2008.
- [3528] Ivan Nourdin. A simple theory for the study of SDEs driven by a fractional Brownian motion, in dimension one. In *Séminaire de probabilités XLI*, volume 1934 of *Lecture Notes in Math.*, pages 181–197. Springer, Berlin, 2008.
- [3529] Ivan Nourdin. A change of variable formula for the 2D fractional Brownian motion of Hurst index bigger or equal to  $1/4$ . *J. Funct. Anal.*, 256(7):2304–2320, 2009.
- [3530] Ivan Nourdin. Yet another proof of the Nualart-Peccati criterion. *Electron. Commun. Probab.*, 16:467–481, 2011.
- [3531] Ivan Nourdin. *Selected aspects of fractional Brownian motion*, volume 4 of *Bocconi & Springer Series*. Springer, Milan; Bocconi University Press, Milan, 2012.
- [3532] Ivan Nourdin. Lectures on Gaussian approximations with Malliavin calculus. In *Séminaire de Probabilités XLV*, volume 2078 of *Lecture Notes in Math.*, pages 3–89. Springer, Cham, 2013.
- [3533] David Nualart I Rodón. Brownian motion and financial markets. *Mem. Real Acad. Cienc. Artes Barcelona*, 60(9):311–339, 2003.
- [3534] David Nualart Rodón and Joseph Aguilar-Martin. Estimation optimale en puissances de degré  $N$ . *C. R. Acad. Sci. Paris Sér. A-B*, 284(1):A81–A83, 1977.
- [3535] D. Nualart Rodón and M. Sanz Solé. Intégrales stochastiques par rapport au processus de Wiener à deux paramètres. *Ann. Sci. Univ. Clermont No. 61 Math.*, (16):89–99, 1976. École d’Été de Calcul des Probabilités de Saint-Flour (Saint-Flour, 1976).
- [3536] David Nualart Rodón. Contribution to the study of the stochastic integral. *Stochastica*, 1(2):21–34, 1975/76.
- [3537] D. Nualart and J. Aguilar-Martin. Generalized wide sense Markov processes and quadratic dynamical discrete systems. In *Second International Conference on Information Sciences and Systems (Univ. Patras, Patras, 1979)*, Vol. II, pages 411–423. Reidel, Dordrecht-Boston, Mass., 1980.
- [3538] David Nualart and Eulalia Nualart. *Introduction to Malliavin calculus*, volume 9 of *Institute of Mathematical Statistics Textbooks*. Cambridge University Press, Cambridge, 2018.

- [3539] David Nualart and Salvador Ortiz-Latorre. Intersection local time for two independent fractional Brownian motions. *J. Theoret. Probab.*, 20(4):759–767, 2007.
- [3540] D. Nualart and S. Ortiz-Latorre. Central limit theorems for multiple stochastic integrals and Malliavin calculus. *Stochastic Process. Appl.*, 118(4):614–628, 2008.
- [3541] D. Nualart and S. Ortiz-Latorre. An Itô-Stratonovich formula for Gaussian processes: a Riemann sums approach. *Stochastic Process. Appl.*, 118(10):1803–1819, 2008.
- [3542] D. Nualart and S. Ortiz-Latorre. Multidimensional Wick-Itô formula for Gaussian processes. In *Stochastic analysis, stochastic systems, and applications to finance*, pages 3–26. World Sci. Publ., Hackensack, NJ, 2011.
- [3543] David Nualart and Youssef Ouknine. Regularization of differential equations by fractional noise. *Stochastic Process. Appl.*, 102(1):103–116, 2002.
- [3544] David Nualart and Youssef Ouknine. Besov regularity of stochastic integrals with respect to the fractional Brownian motion with parameter  $H > 1/2$ . *J. Theoret. Probab.*, 16(2):451–470, 2003.
- [3545] David Nualart and Youssef Ouknine. Stochastic differential equations with additive fractional noise and locally unbounded drift. In *Stochastic inequalities and applications*, volume 56 of *Progr. Probab.*, pages 353–365. Birkhäuser, Basel, 2003.
- [3546] David Nualart and Youssef Ouknine. Regularization of quasilinear heat equations by a fractional noise. *Stoch. Dyn.*, 4(2):201–221, 2004.
- [3547] D. Nualart and É. Pardoux. Stochastic calculus with anticipating integrands. *Probab. Theory Related Fields*, 78(4):535–581, 1988.
- [3548] D. Nualart and É. Pardoux. Boundary value problems for stochastic differential equations. *Ann. Probab.*, 19(3):1118–1144, 1991.
- [3549] David Nualart and Étienne Pardoux. Second order stochastic differential equations with Dirichlet boundary conditions. *Stochastic Process. Appl.*, 39(1):1–24, 1991.
- [3550] David Nualart and Étienne Pardoux. Stochastic differential equations with boundary conditions. In *Stochastic analysis and applications (Lisbon, 1989)*, volume 26 of *Progr. Probab.*, pages 155–175. Birkhäuser Boston, Boston, MA, 1991.
- [3551] D. Nualart and É. Pardoux. White noise driven quasilinear SPDEs with reflection. *Probab. Theory Related Fields*, 93(1):77–89, 1992.
- [3552] D. Nualart and E. Pardoux. Markov field properties of solutions of white noise driven quasilinear parabolic PDEs. *Stochastics Stochastics Rep.*, 48(1-2):17–44, 1994.
- [3553] David Nualart and Giovanni Peccati. Central limit theorems for sequences of multiple stochastic integrals. *Ann. Probab.*, 33(1):177–193, 2005.
- [3554] David Nualart and Victor Pérez-Abreu. On the eigenvalue process of a matrix fractional Brownian motion. *Stochastic Process. Appl.*, 124(12):4266–4282, 2014.
- [3555] David Nualart and Philip Protter. Skorohod integral of a product of two stochastic processes. *J. Theoret. Probab.*, 9(4):1029–1037, 1996.
- [3556] David Nualart and Lluís Quer-Sardanyons. Existence and smoothness of the density for spatially homogeneous SPDEs. *Potential Anal.*, 27(3):281–299, 2007.
- [3557] David Nualart and Lluís Quer-Sardanyons. Gaussian density estimates for solutions to quasilinear stochastic partial differential equations. *Stochastic Process. Appl.*, 119(11):3914–3938, 2009.



- [3558] David Nualart and Lluís Quer-Sardanyons. Optimal Gaussian density estimates for a class of stochastic equations with additive noise. *Infin. Dimens. Anal. Quantum Probab. Relat. Top.*, 14(1):25–34, 2011.
- [3559] Eulalia Nualart and Lluís Quer-Sardanyons. Gaussian estimates for the density of the non-linear stochastic heat equation in any space dimension. *Stochastic Process. Appl.*, 122(1):418–447, 2012.
- [3560] D. Nualart, C. Rovira, and S. Tindel. Probabilistic models for vortex filaments based on fractional Brownian motion. *RACSAM. Rev. R. Acad. Cienc. Exactas Fís. Nat. Ser. A Mat.*, 95(2):213–218, 2001.
- [3561] David Nualart, Carles Rovira, and Samy Tindel. Probabilistic models for vortex filaments based on fractional Brownian motion. *Ann. Probab.*, 31(4):1862–1899, 2003.
- [3562] David Nualart and Carles Rovira. Large deviations for stochastic Volterra equations. *Bernoulli*, 6(2):339–355, 2000.
- [3563] David Nualart and Boris Rozovskii. Weighted stochastic Sobolev spaces and bilinear SPDEs driven by space-time white noise. *J. Funct. Anal.*, 149(1):200–225, 1997.
- [3564] David Nualart, Aurel Ruşcanu, and Aurel Ruşcanu. Differential equations driven by fractional Brownian motion. *Collect. Math.*, 53(1):55–81, 2002.
- [3565] D. Nualart, M. Sanz, and M. Zakai. On the relations between increasing functions associated with two-parameter continuous martingales. *Stochastic Process. Appl.*, 34(1):99–119, 1990.
- [3566] David Nualart and Marta Sanz. Caractérisation des martingales à deux paramètres indépendantes du chemin. *Ann. Sci. Univ. Clermont Math.*, (17):96–104, 1979. 8e École d’Été de Calcul des Probabilités de Saint-Flour (Saint-Flour, 1978).
- [3567] D. Nualart and M. Sanz. A Markov property for two-parameter Gaussian processes. *Stochastica*, 3(1):1–16, 1979.
- [3568] David Nualart and Marta Sanz. The conditional independence property in filtrations associated to stopping lines. In *Proceedings of the seventh Spanish-Portuguese conference on mathematics, Part III (Sant Feliu de Guíxois, 1980)*, number 22, pages 173–176, 1980.
- [3569] D. Nualart and M. Sanz. Random Gaussian Markov fields. In *Proceedings of the First World Conference on Mathematics at the Service of Man (Barcelona, 1977)*, Vol. I, pages 629–642. Univ. Politec., Barcelona, 1980.
- [3570] D. Nualart and M. Sanz. Changing time for two-parameter strong martingales. *Ann. Inst. H. Poincaré Sect. B (N.S.)*, 17(2):147–163, 1981.
- [3571] D. Nualart and M. Sanz. The conditional independence property in filtrations associated to stopping lines. In *Two-index random processes (Paris, 1980)*, volume 863 of *Lecture Notes in Math.*, pages 202–210. Springer, Berlin, 1981.
- [3572] David Nualart and Marta Sanz. A singular stochastic integral equation. *Proc. Amer. Math. Soc.*, 86(1):139–142, 1982.
- [3573] D. Nualart and M. Sanz. Malliavin calculus for two-parameter processes. *Ann. Sci. Univ. Clermont-Ferrand II Probab. Appl.*, (3):73–86, 1985.
- [3574] D. Nualart and M. Sanz. Malliavin calculus for two-parameter Wiener functionals. *Z. Wahrsch. Verw. Gebiete*, 70(4):573–590, 1985.
- [3575] D. Nualart and M. Sanz. Stochastic differential equations on the plane: smoothness of the solution. *J. Multivariate Anal.*, 31(1):1–29, 1989.

- [3576] David Nualart and Bruno Saussereau. Malliavin calculus for stochastic differential equations driven by a fractional Brownian motion. *Stochastic Process. Appl.*, 119(2):391–409, 2009.
- [3577] David Nualart and Wim Schoutens. Chaotic and predictable representations for Lévy processes. *Stochastic Process. Appl.*, 90(1):109–122, 2000.
- [3578] David Nualart and Wim Schoutens. Backward stochastic differential equations and Feynman-Kac formula for Lévy processes, with applications in finance. *Bernoulli*, 7(5):761–776, 2001.
- [3579] David Nualart, Xiaoming Song, and Guangqu Zheng. Spatial averages for the parabolic Anderson model driven by rough noise. *ALEA Lat. Am. J. Probab. Math. Stat.*, 18(1):907–943, 2021.
- [3580] D. Nualart and V. Steblovskaya. Asymptotics of oscillatory integrals with quadratic phase function on Wiener space. *Stochastics Stochastics Rep.*, 66(3-4):293–309, 1999.
- [3581] David Nualart and Jason Swanson. Joint convergence along different subsequences of the signed cubic variation of fractional Brownian motion II. *Electron. Commun. Probab.*, 18:no. 81, 11, 2013.
- [3582] David Nualart and Murad S. Taqqu. Wick-Itô formula for Gaussian processes. *Stoch. Anal. Appl.*, 24(3):599–614, 2006.
- [3583] David Nualart and Murad S. Taqqu. Wick-Itô formula for regular processes and applications to the Black and Scholes formula. *Stochastics*, 80(5):477–487, 2008.
- [3584] David Nualart and Michèle Thieullen. Skorohod stochastic differential equations on random intervals. *Stochastics Stochastics Rep.*, 49(3-4):149–167, 1994.
- [3585] D. Nualart and M. Thieullen. Anticipative stochastic differential equations driven by a multidimensional Brownian motion. In *Stochastic analysis: random fields and measure-valued processes (Ramat Gan, 1993/1995)*, volume 10 of *Israel Math. Conf. Proc.*, pages 169–181. Bar-Ilan Univ., Ramat Gan, 1996.
- [3586] David Nualart and Abhishek Tilva. Continuous Breuer-Major theorem for vector valued fields. *Stoch. Anal. Appl.*, 38(4):668–685, 2020.
- [3587] David Nualart and Samy Tindel. A construction of the rough path above fractional Brownian motion using Volterra’s representation. *Ann. Probab.*, 39(3):1061–1096, 2011.
- [3588] David Nualart and Samy Tindel. Quasilinear stochastic elliptic equations with reflection. *Stochastic Process. Appl.*, 57(1):73–82, 1995.
- [3589] David Nualart and Samy Tindel. Quasilinear stochastic hyperbolic differential equations with nondecreasing coefficient. *Potential Anal.*, 7(3):661–680, 1997.
- [3590] David Nualart and Samy Tindel. On two-parameter non-degenerate Brownian martingales. *Bull. Sci. Math.*, 122(4):317–335, 1998.
- [3591] David Nualart and Ciprian A. Tudor. The determinant of the iterated Malliavin matrix and the density of a pair of multiple integrals. *Ann. Probab.*, 45(1):518–534, 2017.
- [3592] D. Nualart, A. S. Üstünel, and M. Zakai. On the moments of a multiple Wiener-Itô integral and the space induced by the polynomials of the integral. *Stochastics*, 25(4):233–240, 1988.
- [3593] D. Nualart, A. S. Üstünel, and M. Zakai. Some remarks on independence and conditioning on Wiener space. In *Stochastic analysis and related topics, II (Sivri, 1988)*, volume 1444 of *Lecture Notes in Math.*, pages 122–127. Springer, Berlin, 1990.
- [3594] D. Nualart, A. S. Üstünel, and M. Zakai. Some relations among classes of  $\sigma$ -fields on Wiener space. *Probab. Theory Related Fields*, 85(1):119–129, 1990.

- [3595] David Nualart and Ali Süleyman Üstünel. Une extension du laplacien sur l'espace de Wiener et la formule d'Itô associée. *C. R. Acad. Sci. Paris Sér. I Math.*, 309(6):383–386, 1989.
- [3596] David Nualart and Ali Süleyman Üstünel. Mesures cylindriques et distributions sur l'espace de Wiener. In *Stochastic partial differential equations and applications, II (Trento, 1988)*, volume 1390 of *Lecture Notes in Math.*, pages 186–191. Springer, Berlin, 1989.
- [3597] D. Nualart and A. S. Üstünel. Geometric analysis of conditional independence on Wiener space. *Probab. Theory Related Fields*, 89(4):407–422, 1991.
- [3598] David Nualart and Frederic Utzet. A property of two-parameter martingales with path-independent variation. *Stochastic Process. Appl.*, 24(1):31–49, 1987.
- [3599] David Nualart and Frederi Viens. Evolution equation of a stochastic semigroup with white-noise drift. *Ann. Probab.*, 28(1):36–73, 2000.
- [3600] Eulalia Nualart and Frederi Viens. The fractional stochastic heat equation on the circle: time regularity and potential theory. *Stochastic Process. Appl.*, 119(5):1505–1540, 2009.
- [3601] David Nualart and Josep Vives. Continuité absolue de la loi du maximum d'un processus continu. *C. R. Acad. Sci. Paris Sér. I Math.*, 307(7):349–354, 1988.
- [3602] David Nualart and Josep Vives. Anticipative calculus for the Poisson process based on the Fock space. In *Séminaire de Probabilités, XXIV, 1988/89*, volume 1426 of *Lecture Notes in Math.*, pages 154–165. Springer, Berlin, 1990.
- [3603] David Nualart and Josep Vives. Chaos expansions and local times. *Publ. Mat.*, 36(2B):827–836 (1993), 1992.
- [3604] D. Nualart and J. Vives. Smoothness of Brownian local times and related functionals. *Potential Anal.*, 1(3):257–263, 1992.
- [3605] David Nualart and Josep Vives. Smoothness of local time and related Wiener functionals. In *Chaos expansions, multiple Wiener-Itô integrals and their applications (Guanajuato, 1992)*, Probab. Stochastics Ser., pages 317–335. CRC, Boca Raton, FL, 1994.
- [3606] David Nualart and Josep Vives. A duality formula on the Poisson space and some applications. In *Seminar on Stochastic Analysis, Random Fields and Applications (Ascona, 1993)*, volume 36 of *Progr. Probab.*, pages 205–213. Birkhäuser, Basel, 1995.
- [3607] David Nualart and Pierre-A. Vuillermot. Variational solutions for a class of fractional stochastic partial differential equations. *C. R. Math. Acad. Sci. Paris*, 340(4):281–286, 2005.
- [3608] David Nualart and Pierre A. Vuillermot. A stabilization phenomenon for a class of stochastic partial differential equations. In *Stochastic partial differential equations and applications—VII*, volume 245 of *Lect. Notes Pure Appl. Math.*, pages 215–227. Chapman & Hall/CRC, Boca Raton, FL, 2006.
- [3609] David Nualart and Pierre-A. Vuillermot. Variational solutions for partial differential equations driven by a fractional noise. *J. Funct. Anal.*, 232(2):390–454, 2006.
- [3610] David Nualart and Mario Wschebor. Intégration par parties dans l'espace de Wiener et approximation du temps local. *Probab. Theory Related Fields*, 90(1):83–109, 1991.
- [3611] David Nualart and Panqiu Xia. On nonlinear rough paths. *ALEA Lat. Am. J. Probab. Math. Stat.*, 17(1):545–587, 2020.
- [3612] David Nualart and Fangjun Xu. Central limit theorem for an additive functional of the fractional Brownian motion II. *Electron. Commun. Probab.*, 18:no. 74, 10, 2013.

- [3613] David Nualart and Fangjun Xu. Central limit theorem for functionals of two independent fractional Brownian motions. *Stochastic Process. Appl.*, 124(11):3782–3806, 2014.
- [3614] David Nualart and Fangjun Xu. A second order limit law for occupation times of the Cauchy process. *Stochastics*, 86(6):967–974, 2014.
- [3615] David Nualart and Fangjun Xu. Asymptotic behavior for an additive functional of two independent self-similar Gaussian processes. *Stochastic Process. Appl.*, 129(10):3981–4008, 2019.
- [3616] D. Nualart and J. Yeh. Dependence on the boundary condition for linear stochastic differential equations in the plane. *Stochastic Process. Appl.*, 33(1):45–61, 1989.
- [3617] D. Nualart and J. Yeh. Existence and uniqueness of a strong solution to stochastic differential equations in the plane with stochastic boundary process. *J. Multivariate Anal.*, 28(1):149–171, 1989.
- [3618] David Nualart and Nakahiro Yoshida. Asymptotic expansion of Skorohod integrals. *Electron. J. Probab.*, 24:Paper No. 119, 64, 2019.
- [3619] David Nualart and Moshe Zakai. Generalized stochastic integrals and the Malliavin calculus. *Probab. Theory Relat. Fields*, 73(2):255–280, 1986.
- [3620] David Nualart and Moshe Zakai. Generalized multiple stochastic integrals and the representation of Wiener functionals. *Stochastics*, 23(3):311–330, 1988.
- [3621] David Nualart and Moshe Zakai. Generalized Brownian functionals and the solution to a stochastic partial differential equation. *J. Funct. Anal.*, 84(2):279–296, 1989.
- [3622] D. Nualart and M. Zakai. On the relation between the Stratonovich and Ogawa integrals. *Ann. Probab.*, 17(4):1536–1540, 1989.
- [3623] David Nualart and Moshe Zakai. The partial Malliavin calculus. In *Séminaire de Probabilités, XXIII*, volume 1372 of *Lecture Notes in Math.*, pages 362–381. Springer, Berlin, 1989.
- [3624] D. Nualart and M. Zakai. A summary of some identities of the Malliavin calculus. In *Stochastic partial differential equations and applications, II (Trento, 1988)*, volume 1390 of *Lecture Notes in Math.*, pages 192–196. Springer, Berlin, 1989.
- [3625] David Nualart and Moshe Zakai. Multiple Wiener-Itô integrals possessing a continuous extension. *Probab. Theory Related Fields*, 85(1):131–145, 1990.
- [3626] David Nualart and Moshe Zakai. Positive and strongly positive Wiener functionals. In *Barcelona Seminar on Stochastic Analysis (St. Feliu de Guíxols, 1991)*, volume 32 of *Progr. Probab.*, pages 132–146. Birkhäuser, Basel, 1993.
- [3627] David Nualart and Raghd Zeineddine. Symmetric weighted odd-power variations of fractional Brownian motion and applications. *Commun. Stoch. Anal.*, 12(1):Art. 4, 37–58, 2018.
- [3628] David Nualart and Guangqu Zheng. Averaging Gaussian functionals. *Electron. J. Probab.*, 25:Paper No. 48, 54, 2020.
- [3629] David Nualart and Guangqu Zheng. Oscillatory Breuer-Major theorem with application to the random corrector problem. *Asymptot. Anal.*, 119(3-4):281–300, 2020.
- [3630] David Nualart and Guangqu Zheng. Spatial ergodicity of stochastic wave equations in dimensions 1, 2 and 3. *Electron. Commun. Probab.*, 25:Paper No. 80, 11, 2020.
- [3631] David Nualart and Hongjuan Zhou. Total variation estimates in the Breuer-Major theorem. *Ann. Inst. Henri Poincaré Probab. Stat.*, 57(2):740–777, 2021.

- [3632] David Nualart. Stochastic integration with respect to fractional Brownian motion and applications. In *Stochastic models (Mexico City, 2002)*, volume 336 of *Contemp. Math.*, pages 3–39. Amer. Math. Soc., Providence, RI, 2003.
- [3633] Eulalia Nualart. Exponential divergence estimates and heat kernel tail. *C. R. Math. Acad. Sci. Paris*, 338(1):77–80, 2004.
- [3634] David Nualart. A white noise approach to fractional Brownian motion. In *Stochastic analysis: classical and quantum*, pages 112–126. World Sci. Publ., Hackensack, NJ, 2005.
- [3635] David Nualart. Fractional Brownian motion: stochastic calculus and applications. In *International Congress of Mathematicians. Vol. III*, pages 1541–1562. Eur. Math. Soc., Zürich, 2006.
- [3636] David Nualart. *The Malliavin calculus and related topics*. Probability and its Applications (New York). Springer-Verlag, Berlin, second edition, 2006.
- [3637] David Nualart. Stochastic calculus with respect to fractional Brownian motion. *Ann. Fac. Sci. Toulouse Math. (6)*, 15(1):63–78, 2006.
- [3638] David Nualart. Application of Malliavin calculus to stochastic partial differential equations. In *A minicourse on stochastic partial differential equations*, volume 1962 of *Lecture Notes in Math.*, pages 73–109. Springer, Berlin, 2009.
- [3639] David Nualart. *Malliavin calculus and its applications*, volume 110 of *CBMS Regional Conference Series in Mathematics*. Published for the Conference Board of the Mathematical Sciences, Washington, DC; by the American Mathematical Society, Providence, RI, 2009.
- [3640] Eulàlia Nualart. Applicability of the integration-by-parts formula in a Gaussian space. *Bull. Soc. Catalana Mat.*, 26(2):137–163, 221–222, 2011.
- [3641] David Nualart. Discussion of Hiroshi Kunita’s article: Analysis of nondegenerate Wiener-Poisson functionals and its applications to Itô’s SDE with jumps [mr2887083]. *Sankhya A*, 73(1):46–49, 2011.
- [3642] Eulalia Nualart. On the density of systems of non-linear spatially homogeneous SPDEs. *Stochastics*, 85(1):48–70, 2013.
- [3643] David Nualart. Stochastic calculus with respect to the fractional Brownian motion. In *European Congress of Mathematics*, pages 475–488. Eur. Math. Soc., Zürich, 2013.
- [3644] David Nualart. Itô Normal approximations with Malliavin calculus [book review of mr2962301]. *Bull. Amer. Math. Soc. (N.S.)*, 51(3):491–497, 2014.
- [3645] David Nualart. Normal approximation on a finite Wiener chaos. In *Stochastic analysis and applications 2014*, volume 100 of *Springer Proc. Math. Stat.*, pages 377–395. Springer, Cham, 2014.
- [3646] Eulalia Nualart. Moment bounds for some fractional stochastic heat equations on the ball. *Electron. Commun. Probab.*, 23:Paper No. 41, 12, 2018.
- [3647] David Nualart. On the convergence of martingales. In *Proceedings of the First Spanish-Portuguese Mathematical Conference (Madrid, 1973) (Spanish)*, pages 638–646. Consejo Sup. Inv. Cient., Madrid, 1977.
- [3648] David Nualart. On the order convergence of stochastic processes. In *Proceedings of the First Spanish-Portuguese Mathematical Conference (Madrid, 1973) (Spanish)*, pages 647–655. Consejo Sup. Inv. Cient., Madrid, 1977.

- [3649] David Nualart. Decomposition of independent valued stochastic measures. In *Contributions in probability and mathematical statistics, teaching of mathematics and analysis (Spanish)*, pages 83–90. Grindley, Granada, 1979.
- [3650] D. Nualart. Decomposition of two-parameter martingales. *Stochastica*, 5(3):133–150, 1981.
- [3651] D. Nualart. Martingales à variation indépendante du chemin. In *Two-index random processes (Paris, 1980)*, volume 863 of *Lecture Notes in Math.*, pages 128–148. Springer, Berlin, 1981.
- [3652] David Nualart. Weak convergence to the law of two-parameter continuous processes. *Z. Wahrsch. Verw. Gebiete*, 55(3):255–259, 1981.
- [3653] D. Nualart. Martingales non fortes à variation indépendante du chemin. *Ann. Sci. Univ. Clermont-Ferrand II Math.*, (20):112–114, 1982.
- [3654] D. Nualart. Différents types de martingales à deux indices. In *Seminar on probability, XVII*, volume 986 of *Lecture Notes in Math.*, pages 398–417. Springer, Berlin, 1983.
- [3655] David Nualart. On the distribution of a double stochastic integral. *Z. Wahrsch. Verw. Gebiete*, 65(1):49–60, 1983.
- [3656] D. Nualart. Two-parameter diffusion processes and martingales. *Stochastic Process. Appl.*, 15(1):31–57, 1983.
- [3657] David Nualart. Une formule d’Itô pour les martingales continues à deux indices et quelques applications. *Ann. Inst. H. Poincaré Probab. Statist.*, 20(3):251–275, 1984.
- [3658] D. Nualart. On the quadratic variation of two-parameter continuous martingales. *Ann. Probab.*, 12(2):445–457, 1984.
- [3659] David Nualart. Variations quadratiques et inégalités pour les martingales à deux indices. *Stochastics*, 15(1):51–63, 1985.
- [3660] David Nualart. Application du calcul de Malliavin aux équations différentielles stochastiques sur le plan. In *Séminaire de Probabilités, XX, 1984/85*, volume 1204 of *Lecture Notes in Math.*, pages 379–395. Springer, Berlin, 1986.
- [3661] D. Nualart. Malliavin calculus and stochastic integrals. In *Probability and Banach spaces (Zaragoza, 1985)*, volume 1221 of *Lecture Notes in Math.*, pages 182–194. Springer, Berlin, 1986.
- [3662] David Nualart. Some remarks on a linear stochastic differential equation. *Statist. Probab. Lett.*, 5(3):231–234, 1987.
- [3663] David Nualart. Noncausal stochastic integrals and calculus. In *Stochastic analysis and related topics (Silivri, 1986)*, volume 1316 of *Lecture Notes in Math.*, pages 80–129. Springer, Berlin, 1988.
- [3664] David Nualart. Martingales and their applications: a historical perspective. *Butl. Soc. Catalana Mat.*, (4):33–46, 1989.
- [3665] David Nualart. Une remarque sur le développement en chaos d’une diffusion. In *Séminaire de Probabilités, XXIII*, volume 1372 of *Lecture Notes in Math.*, pages 165–168. Springer, Berlin, 1989.
- [3666] David Nualart. Malliavin calculus and related topics. In *Stochastic processes and related topics (Georgenthal, 1990)*, volume 61 of *Math. Res.*, pages 103–127. Akademie-Verlag, Berlin, 1991.
- [3667] David Nualart. Nonlinear transformations of the Wiener measure and applications. In *Stochastic analysis*, pages 397–431. Academic Press, Boston, MA, 1991.

- [3668] David Nualart. Geometric characterization of independence in a Gaussian space. *Rev. Real Acad. Cienc. Exact. Fís. Natur. Madrid*, 86(2):237–250, 1992.
- [3669] David Nualart. Randomized stopping points and optimal stopping on the plane. *Ann. Probab.*, 20(2):883–900, 1992.
- [3670] D. Nualart. Anticipating stochastic differential equations. *Bull. Sci. Math.*, 117(1):49–62, 1993.
- [3671] David Nualart. Markov fields and transformations of the Wiener measure. In *Stochastic analysis and related topics (Oslo, 1992)*, volume 8 of *Stochastics Monogr.*, pages 45–88. Gordon and Breach, Montreux, 1993.
- [3672] David Nualart. *The Malliavin calculus and related topics*. Probability and its Applications (New York). Springer-Verlag, New York, 1995.
- [3673] David Nualart. Markov properties for solutions of stochastic differential equations. In *Stochastic analysis (Ithaca, NY, 1993)*, volume 57 of *Proc. Sympos. Pure Math.*, pages 465–471. Amer. Math. Soc., Providence, RI, 1995.
- [3674] David Nualart. Analysis on Wiener space and anticipating stochastic calculus. In *Lectures on probability theory and statistics (Saint-Flour, 1995)*, volume 1690 of *Lecture Notes in Math.*, pages 123–227. Springer, Berlin, 1998.
- [3675] David Nualart. Stochastic anticipating calculus. In *Probability towards 2000 (New York, 1995)*, volume 128 of *Lect. Notes Stat.*, pages 249–262. Springer, New York, 1998.
- [3676] David Nualart. Stochastic partial differential equations perturbed by a white noise. volume 14, pages 85–98. 1999. First Conference on Mathematics (Catalan) (Bellaterra, 1998).
- [3677] Fritz Oberhettinger and Larry Badii. *Tables of Laplace transforms*. Springer-Verlag, New York-Heidelberg, 1973.
- [3678] Fritz Oberhettinger. *Tables of Mellin transforms*. Springer-Verlag, New York-Heidelberg, 1974.
- [3679] Daniel Ocone. Malliavin’s calculus and stochastic integral representations of functionals of diffusion processes. *Stochastics*, 12(3-4):161–185, 1984.
- [3680] Neil O’Connell, Timo Seppäläinen, and Nikos Zygouras. Geometric RSK correspondence, Whittaker functions and symmetrized random polymers. *Invent. Math.*, 197(2):361–416, 2014.
- [3681] Neil O’Connell and Marc Yor. Brownian analogues of Burke’s theorem. *Stochastic Process. Appl.*, 96(2):285–304, 2001.
- [3682] Neil O’Connell. Directed polymers and the quantum Toda lattice. *Ann. Probab.*, 40(2):437–458, 2012.
- [3683] Tadahiro Oh, Jeremy Quastel, and Benedek Valkó. Interpolation of Gibbs measures with white noise for Hamiltonian PDE. *J. Math. Pures Appl. (9)*, 97(4):391–410, 2012.
- [3684] Tadahiro Oh and Jeremy Quastel. On invariant Gibbs measures conditioned on mass and momentum. *J. Math. Soc. Japan*, 65(1):13–35, 2013.
- [3685] Tadahiro Oh and Jeremy Quastel. On the Cameron-Martin theorem and almost-sure global existence. *Proc. Edinb. Math. Soc. (2)*, 59(2):483–501, 2016.
- [3686] Tadahiro Oh, Tristan Robert, Philippe Sosoe, and Yuzhao Wang. On the two-dimensional hyperbolic stochastic sine-Gordon equation. *Stoch. Partial Differ. Equ. Anal. Comput.*, 9(1):1–32, 2021.

- [3687] Tadahiro Oh and Laurent Thomann. A pedestrian approach to the invariant Gibbs measures for the 2- $d$  defocusing nonlinear Schrödinger equations. *Stoch. Partial Differ. Equ. Anal. Comput.*, 6(3):397–445, 2018.
- [3688] Masahito Ohta. Blowup of solutions of dissipative nonlinear wave equations. *Hokkaido Math. J.*, 26(1):115–124, 1997.
- [3689] Andrei Okounkov. Generating functions for intersection numbers on moduli spaces of curves. *Int. Math. Res. Not.*, (18):933–957, 2002.
- [3690] Bernt Øksendal, Frank Proske, and Tusheng Zhang. Backward stochastic partial differential equations with jumps and application to optimal control of random jump fields. *Stochastics*, 77(5):381–399, 2005.
- [3691] Bernt Øksendal, Agnès Sulem, and Tusheng Zhang. Optimal control of stochastic delay equations and time-advanced backward stochastic differential equations. *Adv. in Appl. Probab.*, 43(2):572–596, 2011.
- [3692] Bernt Øksendal, Agnès Sulem, and Tusheng Zhang. Optimal partial information control of SPDEs with delay and time-advanced backward SPDEs. In *Stochastic analysis and applications to finance*, volume 13 of *Interdiscip. Math. Sci.*, pages 355–383. World Sci. Publ., Hackensack, NJ, 2012.
- [3693] Bernt Øksendal, Agnès Sulem, and Tusheng Zhang. Singular control and optimal stopping of SPDEs, and backward SPDEs with reflection. *Math. Oper. Res.*, 39(2):464–486, 2014.
- [3694] Bernt Øksendal, Agnès Sulem, and Tusheng Zhang. A comparison theorem for backward SPDEs with jumps. In *Festschrift Masatoshi Fukushima*, volume 17 of *Interdiscip. Math. Sci.*, pages 479–487. World Sci. Publ., Hackensack, NJ, 2015.
- [3695] Bernt Øksendal, Agnès Sulem, and Tusheng Zhang. A stochastic HJB equation for optimal control of forward-backwards SDEs. In *The fascination of probability, statistics and their applications*, pages 435–446. Springer, Cham, 2016.
- [3696] Bernt Øksendal and Tusheng Zhang. The Itô-Ventzell formula and forward stochastic differential equations driven by Poisson random measures. *Osaka J. Math.*, 44(1):207–230, 2007.
- [3697] Bernt Øksendal and Tusheng Zhang. Optimal control with partial information for stochastic Volterra equations. *Int. J. Stoch. Anal.*, pages Art. ID 329185, 25, 2010.
- [3698] Bernt Øksendal and Tusheng Zhang. Backward stochastic differential equations with respect to general filtrations and applications to insider finance. *Commun. Stoch. Anal.*, 6(4):703–722, 2012.
- [3699] A. B. Olde Daalhuis. Confluent hypergeometric functions. In *NIST handbook of mathematical functions*, pages 321–349. U.S. Dept. Commerce, Washington, DC, 2010.
- [3700] A. B. Olde Daalhuis. Hypergeometric function. In *NIST handbook of mathematical functions*, pages 383–401. U.S. Dept. Commerce, Washington, DC, 2010.
- [3701] Keith Oldham, Jan Myland, and Jerome Spanier. *An atlas of functions*. Springer, New York, second edition, 2009. With Equator, the atlas function calculator, With 1 CD-ROM (Windows).
- [3702] Maria João Oliveira, José Luís da Silva, and Ludwig Streit. Intersection local times of independent fractional Brownian motions as generalized white noise functionals. *Acta Appl. Math.*, 113(1):17–39, 2011.
- [3703] Stefano Olla and Li-Cheng Tsai. Exceedingly large deviations of the totally asymmetric exclusion process. *Electron. J. Probab.*, 24:Paper No. 16, 71, 2019.



- [3704] Grigori Olshanski. Random permutations and related topics. In *The Oxford handbook of random matrix theory*, pages 510–533. Oxford Univ. Press, Oxford, 2011.
- [3705] Frank W. J. Olver, Daniel W. Lozier, Ronald F. Boisvert, and Charles W. Clark. *NIST handbook of mathematical functions*. U.S. Department of Commerce, National Institute of Standards and Technology, Washington, DC; Cambridge University Press, Cambridge, 2010. With 1 CD-ROM (Windows, Macintosh and UNIX).
- [3706] F. W. J. Olver and L. C. Maximon. Bessel functions. In *NIST handbook of mathematical functions*, pages 215–286. U.S. Dept. Commerce, Washington, DC, 2010.
- [3707] F. W. J. Olver and R. Wong. Asymptotic approximations. In *NIST handbook of mathematical functions*, pages 41–70. U.S. Dept. Commerce, Washington, DC, 2010.
- [3708] F. W. J. Olver. Airy and related functions. In *NIST handbook of mathematical functions*, pages 193–213. U.S. Dept. Commerce, Washington, DC, 2010.
- [3709] Frank W. J. Olver. *Asymptotics and special functions*. AKP Classics. A K Peters, Ltd., Wellesley, MA, 1997. Reprint of the 1974 original [Academic Press, New York; MR0435697 (55 #8655)].
- [3710] Martin Ondreját. Uniqueness for stochastic evolution equations in Banach spaces. *Dissertationes Math. (Rozprawy Mat.)*, 426:63, 2004.
- [3711] Martin Ondreját. Stochastic wave equation with critical nonlinearities: temporal regularity and uniqueness. *J. Differential Equations*, 248(7):1579–1602, 2010.
- [3712] Martin Ondreját. Stochastic nonlinear wave equations in local Sobolev spaces. *Electron. J. Probab.*, 15:no. 33, 1041–1091, 2010.
- [3713] Kosuke Ono. Global existence, decay, and blowup of solutions for some mildly degenerate nonlinear Kirchhoff strings. *J. Differential Equations*, 137(2):273–301, 1997.
- [3714] N. Orantin. Chain of matrices, loop equations, and topological recursion. In *The Oxford handbook of random matrix theory*, pages 329–352. Oxford Univ. Press, Oxford, 2011.
- [3715] Enzo Orsingher and Luisa Beghin. Fractional diffusion equations and processes with randomly varying time. *Ann. Probab.*, 37(1):206–249, 2009.
- [3716] Enzo Orsingher. Randomly forced vibrations of a string. *Ann. Inst. H. Poincaré Sect. B (N.S.)*, 18(4):367–394, 1982.
- [3717] Víctor Ortiz-López and Marta Sanz-Solé. A Laplace principle for a stochastic wave equation in spatial dimension three. In *Stochastic analysis 2010*, pages 31–49. Springer, Heidelberg, 2011.
- [3718] Janosch Ortmann, Jeremy Quastel, and Daniel Remenik. Exact formulas for random growth with half-flat initial data. *Ann. Appl. Probab.*, 26(1):507–548, 2016.
- [3719] Janosch Ortmann, Jeremy Quastel, and Daniel Remenik. A Pfaffian representation for flat ASEP. *Comm. Pure Appl. Math.*, 70(1):3–89, 2017.
- [3720] W. F. Osgood. Beweis der Existenz einer Lösung der Differentialgleichung  $\frac{dy}{dx} = f(x, y)$  ohne Hinzunahme der Cauchy-Lipschitz’schen Bedingung. *Monatsh. Math. Phys.*, 9(1):331–345, 1898.
- [3721] F. Otto and C. Villani. Generalization of an inequality by Talagrand and links with the logarithmic Sobolev inequality. *J. Funct. Anal.*, 173(2):361–400, 2000.
- [3722] El Maati Ouhabaz and Feng-Yu Wang. Sharp estimates for intrinsic ultracontractivity on  $C^{1,\alpha}$ -domains. *Manuscripta Math.*, 122(2):229–244, 2007.

- [3723] El Maati Ouhabaz. *Analysis of heat equations on domains*, volume 31 of *London Mathematical Society Monographs Series*. Princeton University Press, Princeton, NJ, 2005.
- [3724] Jean-Yves Oувrard. Représentation de martingales vectorielles de carré intégrable à valeurs dans des espaces de Hilbert réels séparables. *Z. Wahrscheinlichkeitstheorie und Verw. Gebiete*, 33(3):195–208, 1975/76.
- [3725] Cheng Ouyang and Jennifer Pajda-De La O. On the law of the iterated logarithm for Brownian motion on compact manifolds. *Sci. China Math.*, 62(8):1511–1518, 2019.
- [3726] Cheng Ouyang and William Roberson-Vickery. Quasi-sure non-self-intersection for rough differential equations driven by fractional Brownian motion. *Electron. Commun. Probab.*, 27:Paper No. 15, 12, 2022.
- [3727] Cheng Ouyang, Yinghui Shi, and Dongsheng Wu. Mutual intersection for rough differential systems driven by fractional Brownian motions. *Statist. Probab. Lett.*, 135:83–91, 2018.
- [3728] Cheng Ouyang. *Asymptotics of implied volatility in local volatility models*. ProQuest LLC, Ann Arbor, MI, 2009. Thesis (Ph.D.)–Northwestern University.
- [3729] Cheng Ouyang. Multiplicative functional for the heat equation on manifolds with boundary. In *Stochastic analysis and related topics*, volume 72 of *Progr. Probab.*, pages 67–83. Birkhäuser/Springer, Cham, 2017.
- [3730] Zsolt Pajor-Gyulai and Michael Salins. On dynamical systems perturbed by a null-recurrent fast motion: the continuous coefficient case with independent driving noises. *J. Theoret. Probab.*, 29(3):1083–1099, 2016.
- [3731] Zs. Pajor-Gyulai and M. Salins. On dynamical systems perturbed by a null-recurrent motion: the general case. *Stochastic Process. Appl.*, 127(6):1960–1997, 2017.
- [3732] Soumik Pal and Mykhaylo Shkolnikov. Concentration of measure for Brownian particle systems interacting through their ranks. *Ann. Appl. Probab.*, 24(4):1482–1508, 2014.
- [3733] Soumik Pal. Concentration for multidimensional diffusions and their boundary local times. *Probab. Theory Related Fields*, 154(1-2):225–254, 2012.
- [3734] Bob Palais. Blowup for nonlinear equations using a comparison principle in Fourier space. *Comm. Pure Appl. Math.*, 41(2):165–196, 1988.
- [3735] Jan Palczewski and Jerzy Zabczyk. Portfolio diversification with Markovian prices. *Probab. Math. Statist.*, 25(1, Acta Univ. Wratislav. No. 2784):75–95, 2005.
- [3736] John Palmer, Morris Beatty, and Craig A. Tracy. Tau functions for the Dirac operator on the Poincaré disk. *Comm. Math. Phys.*, 165(1):97–173, 1994.
- [3737] John Palmer and Craig Tracy. Two-dimensional Ising correlations: convergence of the scaling limit. *Adv. in Appl. Math.*, 2(3):329–388, 1981.
- [3738] John Palmer and Craig Tracy. Two-dimensional Ising correlations: the SMJ analysis. *Adv. in Appl. Math.*, 4(1):46–102, 1983.
- [3739] John Palmer and Craig A. Tracy. Monodromy preserving deformation of the Dirac operator acting on the hyperbolic plane. In *Mathematics of nonlinear science (Phoenix, AZ, 1989)*, volume 108 of *Contemp. Math.*, pages 119–131. Amer. Math. Soc., Providence, RI, 1990.
- [3740] Dmitry Panchenko. A question about the Parisi functional. *Electron. Comm. Probab.*, 10:155–166, 2005.
- [3741] Dmitry Panchenko. A connection between the Ghirlanda-Guerra identities and ultrametricity. *Ann. Probab.*, 38(1):327–347, 2010.

- [3742] Dmitry Panchenko. The Ghirlanda-Guerra identities for mixed  $p$ -spin model. *C. R. Math. Acad. Sci. Paris*, 348(3-4):189–192, 2010.
- [3743] Dmitry Panchenko. On the Dovbysh-Sudakov representation result. *Electron. Commun. Probab.*, 15:330–338, 2010.
- [3744] Dmitry Panchenko. Ghirlanda-Guerra identities and ultrametricity: an elementary proof in the discrete case. *C. R. Math. Acad. Sci. Paris*, 349(13-14):813–816, 2011.
- [3745] Dmitry Panchenko. The Sherrington-Kirkpatrick model: an overview. *J. Stat. Phys.*, 149(2):362–383, 2012.
- [3746] Dmitry Panchenko. A unified stability property in spin glasses. *Comm. Math. Phys.*, 313(3):781–790, 2012.
- [3747] Dmitry Panchenko. The Parisi ultrametricity conjecture. *Ann. of Math. (2)*, 177(1):383–393, 2013.
- [3748] Dmitry Panchenko. *The Sherrington-Kirkpatrick model*. Springer Monographs in Mathematics. Springer, New York, 2013.
- [3749] Dmitry Panchenko. The Parisi formula for mixed  $p$ -spin models. *Ann. Probab.*, 42(3):946–958, 2014.
- [3750] Luciano Pandolfi, Enrico Priola, and Jerzy Zabczyk. Linear operator inequality and null controllability with vanishing energy for unbounded control systems. *SIAM J. Control Optim.*, 51(1):629–659, 2013.
- [3751] Fabien Panloup, Samy Tindel, and Maylis Varvenne. A general drift estimation procedure for stochastic differential equations with additive fractional noise. *Electron. J. Stat.*, 14(1):1075–1136, 2020.
- [3752] Elliot Paquette and Ofer Zeitouni. Extremal eigenvalue correlations in the GUE minor process and a law of fractional logarithm. *Ann. Probab.*, 45(6A):4112–4166, 2017.
- [3753] Elliot Paquette and Ofer Zeitouni. The maximum of the CUE field. *Int. Math. Res. Not. IMRN*, (16):5028–5119, 2018.
- [3754] Étienne Pardoux and Shi Ge Peng. Backward doubly stochastic differential equations and systems of quasilinear SPDEs. *Probab. Theory Related Fields*, 98(2):209–227, 1994.
- [3755] Étienne Pardoux and Andrey Piatnitski. Homogenization of a singular random one-dimensional PDE with time-varying coefficients. *Ann. Probab.*, 40(3):1316–1356, 2012.
- [3756] Étienne Pardoux and Philip Protter. Stochastic Volterra equations with anticipating coefficients. *Ann. Probab.*, 18(4):1635–1655, 1990.
- [3757] Étienne Pardoux and Ofer Zeitouni. Quenched large deviations for one dimensional nonlinear filtering. *SIAM J. Control Optim.*, 43(4):1272–1297, 2004/05.
- [3758] Étienne Pardoux and Tu Sheng Zhang. Absolute continuity of the law of the solution of a parabolic SPDE. *J. Funct. Anal.*, 112(2):447–458, 1993.
- [3759] E. Pardoux. Équations aux dérivées partielles stochastiques de type monotone. In *Séminaire sur les Équations aux Dérivées Partielles (1974–1975), III*, pages Exp. No. 2, 10. Collège de France, Paris, 1975.
- [3760] É. Pardoux. Stochastic partial differential equations, a review. *Bull. Sci. Math.*, 117(1):29–47, 1993.

- [3761] R. B. Paris. Incomplete gamma and related functions. In *NIST handbook of mathematical functions*, pages 175–192. U.S. Dept. Commerce, Washington, DC, 2010.
- [3762] R. B. Paris. Struve and related functions. In *NIST handbook of mathematical functions*, pages 287–301. U.S. Dept. Commerce, Washington, DC, 2010.
- [3763] G. Parisi and Yong Shi Wu. Perturbation theory without gauge fixing. *Sci. Sinica*, 24(4):483–496, 1981.
- [3764] Giorgio Parisi and Yi Cheng Zhang. Field theories and growth models. *J. Statist. Phys.*, 41(1-2):1–16, 1985.
- [3765] Giorgio Parisi. Order parameter for spin-glasses. *Phys. Rev. Lett.*, 50(24):1946–1948, 1983.
- [3766] Giorgio Parisi. On the one-dimensional discretized string. *Phys. Lett. B*, 238(2-4):209–212, 1990.
- [3767] Yong Moon Park. Convergence of lattice approximations and infinite volume limit in the  $(\lambda\phi^4 - \sigma\phi^2 - \tau\phi)_3$  field theory. *J. Mathematical Phys.*, 18(3):354–366, 1977.
- [3768] L. A. Pastur and M. V. Shcherbina. Absence of self-averaging of the order parameter in the Sherrington-Kirkpatrick model. *J. Statist. Phys.*, 62(1-2):1–19, 1991.
- [3769] Daniel Paulin. Concentration inequalities for Markov chains by Marton couplings and spectral methods. *Electron. J. Probab.*, 20:no. 79, 32, 2015.
- [3770] Giovanni Peccati and Murad S. Taqqu. *Wiener chaos: moments, cumulants and diagrams*, volume 1 of *Bocconi & Springer Series*. Springer, Milan; Bocconi University Press, Milan, 2011. A survey with computer implementation, Supplementary material available online.
- [3771] Wenyi Pei, Yuejuan Xi, Yaozhong Hu, and Litan Yan. Active disturbance rejection control approach to output-feedback stabilization of nonlinear system with Lévy noises. *Systems Control Lett.*, 150:Paper No. 104898, 7, 2021.
- [3772] Ron Peled, Arnab Sen, and Ofer Zeitouni. Double roots of random Littlewood polynomials. *Israel J. Math.*, 213(1):55–77, 2016.
- [3773] Andrea Pelissetto and Ettore Vicari. Critical phenomena and renormalization-group theory. *Phys. Rep.*, 368(6):549–727, 2002.
- [3774] Víctor H. de la Peña and Evarist Giné. *Decoupling. Probability and its Applications* (New York). Springer-Verlag, New York, 1999. From dependence to independence, Randomly stopped processes. *U-statistics and processes*. Martingales and beyond.
- [3775] I. Peral and J. L. Vázquez. On the stability or instability of the singular solution of the semi-linear heat equation with exponential reaction term. *Arch. Rational Mech. Anal.*, 129(3):201–224, 1995.
- [3776] Yuval Peres and Ofer Zeitouni. A central limit theorem for biased random walks on Galton-Watson trees. *Probab. Theory Related Fields*, 140(3-4):595–629, 2008.
- [3777] Edwin Perkins. Dawson-Watanabe superprocesses and measure-valued diffusions. In *Lectures on probability theory and statistics (Saint-Flour, 1999)*, volume 1781 of *Lecture Notes in Math.*, pages 125–324. Springer, Berlin, 2002.
- [3778] Edwin Perkins. Local time is a semimartingale. *Z. Wahrsch. Verw. Gebiete*, 60(1):79–117, 1982.
- [3779] Edwin Perkins. Local time and pathwise uniqueness for stochastic differential equations. In *Seminar on Probability, XVI*, volume 920 of *Lecture Notes in Math.*, pages 201–208. Springer, Berlin-New York, 1982.

- [3780] Szymon Peszat and Samy Tindel. Stochastic heat and wave equations on a Lie group. *Stoch. Anal. Appl.*, 28(4):662–695, 2010.
- [3781] Szymon Peszat, Krystyna Twardowska, and Jerzy Zabczyk. Ergodicity of Burgers’ system. *J. Stoch. Anal.*, 2(3):Art. 10, 16, 2021.
- [3782] Szymon Peszat and Jerzy Zabczyk. Nonlinear stochastic wave and heat equations. *Probab. Theory Related Fields*, 116(3):421–443, 2000.
- [3783] Szymon Peszat and Jerzy Zabczyk. Stochastic heat and wave equations driven by an impulsive noise. In *Stochastic partial differential equations and applications—VII*, volume 245 of *Lect. Notes Pure Appl. Math.*, pages 229–242. Chapman & Hall/CRC, Boca Raton, FL, 2006.
- [3784] S. Peszat and J. Zabczyk. *Stochastic partial differential equations with Lévy noise*, volume 113 of *Encyclopedia of Mathematics and its Applications*. Cambridge University Press, Cambridge, 2007. An evolution equation approach.
- [3785] S. Peszat and J. Zabczyk. Time regularity of solutions to linear equations with Lévy noise in infinite dimensions. *Stochastic Process. Appl.*, 123(3):719–751, 2013.
- [3786] S. Peszat and J. Zabczyk. Time regularity for stochastic Volterra equations by the dilation theorem. *J. Math. Anal. Appl.*, 409(2):676–683, 2014.
- [3787] Szymon Peszat and Jerzy Zabczyk. Strong Feller property and irreducibility for diffusions on Hilbert spaces. *Ann. Probab.*, 23(1):157–172, 1995.
- [3788] Szymon Peszat and Jerzy Zabczyk. Stochastic evolution equations with a spatially homogeneous Wiener process. *Stochastic Process. Appl.*, 72(2):187–204, 1997.
- [3789] Szymon Peszat. The Cauchy problem for a nonlinear stochastic wave equation in any dimension. *J. Evol. Equ.*, 2(3):383–394, 2002.
- [3790] Szymon Peszat. Large deviation principle for stochastic evolution equations. *Probab. Theory Related Fields*, 98(1):113–136, 1994.
- [3791] Markus Petermann. Superdiffusivity of directed polymers in random environment. *Ph. D. Thesis Univ. Zurich*, 2000.
- [3792] Karl Petersen. *Ergodic theory*, volume 2 of *Cambridge Studies in Advanced Mathematics*. Cambridge University Press, Cambridge, 1983.
- [3793] Karl Petersen. *Ergodic theory*, volume 2 of *Cambridge Studies in Advanced Mathematics*. Cambridge University Press, Cambridge, 1989. Corrected reprint of the 1983 original.
- [3794] Jonathon Peterson and Timo Seppäläinen. Current fluctuations of a system of one-dimensional random walks in random environment. *Ann. Probab.*, 38(6):2258–2294, 2010.
- [3795] Jonathon Peterson and Ofer Zeitouni. On the annealed large deviation rate function for a multi-dimensional random walk in random environment. *ALEA Lat. Am. J. Probab. Math. Stat.*, 6:349–368, 2009.
- [3796] Jonathon Peterson and Ofer Zeitouni. Quenched limits for transient, zero speed one-dimensional random walk in random environment. *Ann. Probab.*, 37(1):143–188, 2009.
- [3797] Peter Pfaffelhuber and Lea Popovic. Scaling limits of spatial compartment models for chemical reaction networks. *Ann. Appl. Probab.*, 25(6):3162–3208, 2015.
- [3798] Daniel Phillips. Existence of solutions of quenching problems. *Appl. Anal.*, 24(4):253–264, 1987.

- [3799] Jean Picard. *Lectures on probability theory and statistics*, volume 1837 of *Lecture Notes in Mathematics*. Springer-Verlag, Berlin, 2004. Lectures from the 31st Summer School on Probability Theory held in Saint-Flour, July 8–25, 2001.
- [3800] Albrecht Pietsch. *Operator ideals*, volume 16 of *Mathematische Monographien [Mathematical Monographs]*. VEB Deutscher Verlag der Wissenschaften, Berlin, 1978.
- [3801] Iosif Pinelis. Optimum bounds for the distributions of martingales in Banach spaces. *Ann. Probab.*, 22(4):1679–1706, 1994.
- [3802] Mark A. Pinsky, Nancy K. Stanton, and Peter E. Trapa. Fourier series of radial functions in several variables. *J. Funct. Anal.*, 116(1):111–132, 1993.
- [3803] Vladas Pipiras and Murad S. Taqqu. Integration questions related to fractional Brownian motion. *Probab. Theory Related Fields*, 118(2):251–291, 2000.
- [3804] Vladas Pipiras and Murad S. Taqqu. Are classes of deterministic integrands for fractional Brownian motion on an interval complete? *Bernoulli*, 7(6):873–897, 2001.
- [3805] Gilles Pisier. Probabilistic methods in the geometry of Banach spaces. In *Probability and analysis (Varenna, 1985)*, volume 1206 of *Lecture Notes in Math.*, pages 167–241. Springer, Berlin, 1986.
- [3806] Agoston Pisztora, Tobias Povel, and Ofer Zeitouni. Precise large deviation estimates for a one-dimensional random walk in a random environment. *Probab. Theory Related Fields*, 113(2):191–219, 1999.
- [3807] L. I. Piterbarg. The structure of the infinitesimal  $\sigma$ -algebra of Gaussian processes and fields. *Teor. Veroyatnost. i Primenen.*, 31(3):550–559, 1986.
- [3808] Mircea Pitici. *The best writing on mathematics 2015*. Princeton University Press, Princeton, NJ, 2016.
- [3809] Loren D. Pitt, Raina Robeva, and Dao Yi Wang. An error analysis for the numerical calculation of certain random integrals. I. *Ann. Appl. Probab.*, 5(1):171–197, 1995.
- [3810] L. D. Pitt and R. S. Robeva. On the sharp Markov property for the Whittle field in 2-dimensions. In *Stochastic analysis on infinite-dimensional spaces (Baton Rouge, LA, 1994)*, volume 310 of *Pitman Res. Notes Math. Ser.*, pages 242–254. Longman Sci. Tech., Harlow, 1994.
- [3811] Loren D. Pitt and Lanh Tat Tran. Local sample path properties of Gaussian fields. *Ann. Probab.*, 7(3):477–493, 1979.
- [3812] Loren D. Pitt. A Markov property for Gaussian processes with a multidimensional parameter. *Arch. Rational Mech. Anal.*, 43:367–391, 1971.
- [3813] Loren D. Pitt. Some problems in the spectral theory of stationary processes on  $R^d$ . *Indiana Univ. Math. J.*, 23:343–365, 1973.
- [3814] Loren D. Pitt. Stationary Gaussian Markov fields on  $R^d$  with a deterministic component. *J. Multivariate Anal.*, 5(3):300–311, 1975.
- [3815] M. S. T. Piza. Directed polymers in a random environment: some results on fluctuations. *J. Statist. Phys.*, 89(3-4):581–603, 1997.
- [3816] Igor Podlubny. *Fractional differential equations*, volume 198 of *Mathematics in Science and Engineering*. Academic Press, Inc., San Diego, CA, 1999. An introduction to fractional derivatives, fractional differential equations, to methods of their solution and some of their applications.

- [3817] Joe Polchinski. Monopoles, duality, and string theory. *Internat. J. Modern Phys. A*, 19(February, suppl.):145–154, 2004.
- [3818] Joseph Polchinski. Critical behavior of random surfaces in one dimension. *Nuclear Phys. B*, 346(2-3):253–263, 1990.
- [3819] Georg Pólya and Gábor Szegő. *Aufgaben und Lehrsätze aus der Analysis. Band I: Reihen, Integralrechnung, Funktionentheorie*. Heidelberger Taschenbücher, Band 73. Springer-Verlag, Berlin-New York, 1970. Vierte Auflage.
- [3820] Michael Polyak. Feynman diagrams for pedestrians and mathematicians. In *Graphs and patterns in mathematics and theoretical physics*, volume 73 of *Proc. Sympos. Pure Math.*, pages 15–42. Amer. Math. Soc., Providence, RI, 2005.
- [3821] Andrei D. Polyanin and Vladimir E. Nazaikinskii. *Handbook of linear partial differential equations for engineers and scientists*. CRC Press, Boca Raton, FL, second edition, 2016.
- [3822] Andrei D. Polyanin. *Handbook of linear partial differential equations for engineers and scientists*. Chapman & Hall/CRC, Boca Raton, FL, 2002.
- [3823] A. Yu. Popov and A. M. Sedletskiui. Distribution of roots of Mittag-Leffler functions. *Sovrem. Mat. Fundam. Napravl.*, 40:3–171, 2011.
- [3824] Lea Popovic and Amandine Veber. A spatial measure-valued model for chemical reaction networks in heterogeneous systems. *preprint arXiv:2008.12373*, August 2020.
- [3825] Jan Pospíšil and Roger Tribe. Parameter estimates and exact variations for stochastic heat equations driven by space-time white noise. *Stoch. Anal. Appl.*, 25(3):593–611, 2007.
- [3826] Michael Prähofer and Herbert Spohn. Current fluctuations for the totally asymmetric simple exclusion process. In *In and out of equilibrium (Mambucaba, 2000)*, volume 51 of *Progr. Probab.*, pages 185–204. Birkhäuser Boston, Boston, MA, 2002.
- [3827] Michael Prähofer and Herbert Spohn. Scale invariance of the PNG droplet and the Airy process. volume 108, pages 1071–1106. 2002. Dedicated to David Ruelle and Yasha Sinai on the occasion of their 65th birthdays.
- [3828] Claudia Prévôt and Michael Röckner. *A concise course on stochastic partial differential equations*, volume 1905 of *Lecture Notes in Mathematics*. Springer, Berlin, 2007.
- [3829] Enrico Priola, Armen Shirikyan, Lihu Xu, and Jerzy Zabczyk. Exponential ergodicity and regularity for equations with Lévy noise. *Stochastic Process. Appl.*, 122(1):106–133, 2012.
- [3830] Enrico Priola, Lihu Xu, and Jerzy Zabczyk. Exponential mixing for some SPDEs with Lévy noise. *Stoch. Dyn.*, 11(2-3):521–534, 2011.
- [3831] Enrico Priola and Jerzy Zabczyk. Null controllability with vanishing energy. *SIAM J. Control Optim.*, 42(3):1013–1032, 2003.
- [3832] Enrico Priola and Jerzy Zabczyk. Liouville theorems for non-local operators. *J. Funct. Anal.*, 216(2):455–490, 2004.
- [3833] Enrico Priola and Jerzy Zabczyk. Harmonic functions for generalized Mehler semigroups. In *Stochastic partial differential equations and applications—VII*, volume 245 of *Lect. Notes Pure Appl. Math.*, pages 243–256. Chapman & Hall/CRC, Boca Raton, FL, 2006.
- [3834] Enrico Priola and Jerzy Zabczyk. On bounded solutions to convolution equations. *Proc. Amer. Math. Soc.*, 134(11):3275–3286, 2006.
- [3835] Enrico Priola and Jerzy Zabczyk. Densities for Ornstein-Uhlenbeck processes with jumps. *Bull. Lond. Math. Soc.*, 41(1):41–50, 2009.

- [3836] Enrico Priola and Jerzy Zabczyk. On linear evolution equations for a class of cylindrical Lévy noises. In *Stochastic partial differential equations and applications*, volume 25 of *Quad. Mat.*, pages 223–242. Dept. Math., Seconda Univ. Napoli, Caserta, 2010.
- [3837] Enrico Priola and Jerzy Zabczyk. Structural properties of semilinear SPDEs driven by cylindrical stable processes. *Probab. Theory Related Fields*, 149(1-2):97–137, 2011.
- [3838] Murray H. Protter and Hans F. Weinberger. *Maximum principles in differential equations*. Springer-Verlag, New York, 1984. Corrected reprint of the 1967 original.
- [3839] Philip Protter. Volterra equations driven by semimartingales. *Ann. Probab.*, 13(2):519–530, 1985.
- [3840] Jan Prüß. *Evolutionary integral equations and applications*. Modern Birkhäuser Classics. Birkhäuser/Springer Basel AG, Basel, 1993. [2012] reprint of the 1993 edition.
- [3841] A. V. Pskhu. The fundamental solution of a diffusion-wave equation of fractional order. *Izv. Ross. Akad. Nauk Ser. Mat.*, 73(2):141–182, 2009.
- [3842] Feng Qi. Bounds for the ratio of two gamma functions. *J. Inequal. Appl.*, pages Art. ID 493058, 84, 2010.
- [3843] Jeremy Quastel, Hanna Jankowski, and John Sheriff. Central limit theorem for zero-range processes. volume 9, pages 393–406. 2002. Special issue dedicated to Daniel W. Stroock and Srinivasa S. R. Varadhan on the occasion of their 60th birthday.
- [3844] Jeremy Quastel and Konstantin Matetski. From the totally asymmetric simple exclusion process to the KPZ fixed point. In *Random matrices*, volume 26 of *IAS/Park City Math. Ser.*, pages 251–301. Amer. Math. Soc., Providence, RI, 2019.
- [3845] Jeremy Quastel and Mustazee Rahman. TASEP fluctuations with soft-shock initial data. *Ann. H. Lebesgue*, 3:999–1021, 2020.
- [3846] Jeremy Quastel and Daniel Remenik. Local Brownian property of the narrow wedge solution of the KPZ equation. *Electron. Commun. Probab.*, 16:712–719, 2011.
- [3847] Jeremy Quastel and Daniel Remenik. Local behavior and hitting probabilities of the  $Airy_1$  process. *Probab. Theory Related Fields*, 157(3-4):605–634, 2013.
- [3848] Jeremy Quastel and Daniel Remenik. Supremum of the  $Airy_2$  process minus a parabola on a half line. *J. Stat. Phys.*, 150(3):442–456, 2013.
- [3849] Jeremy Quastel and Daniel Remenik. Airy processes and variational problems. In *Topics in percolative and disordered systems*, volume 69 of *Springer Proc. Math. Stat.*, pages 121–171. Springer, New York, 2014.
- [3850] Jeremy Quastel and Daniel Remenik. Tails of the endpoint distribution of directed polymers. *Ann. Inst. Henri Poincaré Probab. Stat.*, 51(1):1–17, 2015.
- [3851] Jeremy Quastel and Daniel Remenik. How flat is flat in random interface growth? *Trans. Amer. Math. Soc.*, 371(9):6047–6085, 2019.
- [3852] J. Quastel, F. Rezakhanlou, and S. R. S. Varadhan. Large deviations for the symmetric simple exclusion process in dimensions  $d \geq 3$ . *Probab. Theory Related Fields*, 113(1):1–84, 1999.
- [3853] Jeremy Quastel and Sourav Sarkar. Convergence of exclusion processes and the KPZ equation to the KPZ fixed point. *J. Amer. Math. Soc.*, 36(1):251–289, 2023.
- [3854] Jeremy Quastel and Herbert Spohn. The one-dimensional KPZ equation and its universality class. *J. Stat. Phys.*, 160(4):965–984, 2015.



- [3855] Jeremy Quastel and Benedek Valko.  $t^{1/3}$  Superdiffusivity of finite-range asymmetric exclusion processes on  $Z$ . *Comm. Math. Phys.*, 273(2):379–394, 2007.
- [3856] Jeremy Quastel and Benedek Valkó. KdV preserves white noise. *Comm. Math. Phys.*, 277(3):707–714, 2008.
- [3857] Jeremy Quastel and Benedek Valkó. A note on the diffusivity of finite-range asymmetric exclusion processes on  $Z$ . In *In and out of equilibrium. 2*, volume 60 of *Progr. Probab.*, pages 543–549. Birkhäuser, Basel, 2008.
- [3858] Jeremy Quastel and Benedek Valkó. Diffusivity of lattice gases. *Arch. Ration. Mech. Anal.*, 210(1):269–320, 2013.
- [3859] J. Quastel and S. R. S. Varadhan. Diffusion semigroups and diffusion processes corresponding to degenerate divergence form operators. *Comm. Pure Appl. Math.*, 50(7):667–706, 1997.
- [3860] J. Quastel and H.-T. Yau. Lattice gases, large deviations, and the incompressible Navier-Stokes equations. *Ann. of Math. (2)*, 148(1):51–108, 1998.
- [3861] Jeremy Quastel and Horng-Tzer Yau. Fluctuation-dissipation equation and incompressible Navier-Stokes equations. In *XIIth International Congress of Mathematical Physics (ICMP '97) (Brisbane)*, pages 120–130. Int. Press, Cambridge, MA, 1999.
- [3862] Jeremy Quastel. Free boundary problem and hydrodynamic limit. In *Hydrodynamic limits and related topics (Toronto, ON, 1998)*, volume 27 of *Fields Inst. Commun.*, pages 109–116. Amer. Math. Soc., Providence, RI, 2000.
- [3863] Jeremy Quastel. Time reversal of degenerate diffusions. In *In and out of equilibrium (Mambucaba, 2000)*, volume 51 of *Progr. Probab.*, pages 249–257. Birkhäuser Boston, Boston, MA, 2002.
- [3864] Jeremy Quastel. Bulk diffusion in a system with site disorder. *Ann. Probab.*, 34(5):1990–2036, 2006.
- [3865] Jeremy Quastel. KPZ universality for KPZ. In *XVIth International Congress on Mathematical Physics*, pages 401–405. World Sci. Publ., Hackensack, NJ, 2010.
- [3866] Jeremy Quastel. Weakly asymmetric exclusion and KPZ. In *Proceedings of the International Congress of Mathematicians. Volume IV*, pages 2310–2324. Hindustan Book Agency, New Delhi, 2010.
- [3867] Jeremy Quastel. Introduction to KPZ. In *Current developments in mathematics, 2011*, pages 125–194. Int. Press, Somerville, MA, 2012.
- [3868] Jeremy Quastel. Exact solutions of the Kardar-Parisi-Zhang equation and weak universality for directed random polymers. In *Random matrix theory, interacting particle systems, and integrable systems*, volume 65 of *Math. Sci. Res. Inst. Publ.*, pages 443–450. Cambridge Univ. Press, New York, 2014.
- [3869] J. D. Quastel. The Kardar-Parisi-Zhang equation and universality class. In *XVIIth International Congress on Mathematical Physics*, pages 113–133. World Sci. Publ., Hackensack, NJ, 2014.
- [3870] Jeremy Daniel Quastel. *Diffusion of colour in the simple exclusion process*. ProQuest LLC, Ann Arbor, MI, 1990. Thesis (Ph.D.)—New York University.
- [3871] Jeremy Quastel. Diffusion of color in the simple exclusion process. *Comm. Pure Appl. Math.*, 45(6):623–679, 1992.

- [3872] Jeremy Quastel. Large deviations from a hydrodynamic scaling limit for a nongradient system. *Ann. Probab.*, 23(2):724–742, 1995.
- [3873] J. Quastel. Diffusion in disordered media. In *Nonlinear stochastic PDEs (Minneapolis, MN, 1994)*, volume 77 of *IMA Vol. Math. Appl.*, pages 65–79. Springer, New York, 1996.
- [3874] Lluís Quer-Sardanyons and Marta Sanz-Solé. Existence of density for the solution to the three-dimensional stochastic wave equation. *RACSAM. Rev. R. Acad. Cienc. Exactas Fís. Nat. Ser. A Mat.*, 97(1):63–68, 2003.
- [3875] L. Quer-Sardanyons and M. Sanz-Solé. Absolute continuity of the law of the solution to the 3-dimensional stochastic wave equation. *J. Funct. Anal.*, 206(1):1–32, 2004.
- [3876] Lluís Quer-Sardanyons and Marta Sanz-Solé. A stochastic wave equation in dimension 3: smoothness of the law. *Bernoulli*, 10(1):165–186, 2004.
- [3877] Lluís Quer-Sardanyons and Marta Sanz-Solé. Space semi-discretisations for a stochastic wave equation. *Potential Anal.*, 24(4):303–332, 2006.
- [3878] Lluís Quer-Sardanyons and Samy Tindel. The 1-d stochastic wave equation driven by a fractional Brownian sheet. *Stochastic Process. Appl.*, 117(10):1448–1472, 2007.
- [3879] Lluís Quer-Sardanyons and Samy Tindel. Pathwise definition of second-order SDEs. *Stochastic Process. Appl.*, 122(2):466–497, 2012.
- [3880] Lluís Quer-Sardanyons. Gaussian upper density estimates for spatially homogeneous SPDEs. In *Malliavin calculus and stochastic analysis*, volume 34 of *Springer Proc. Math. Stat.*, pages 299–314. Springer, New York, 2013.
- [3881] Fernando Quirós Gracián and Juan L. Vázquez. Self-similar turbulent bursts: existence and analytic dependence. *Differential Integral Equations*, 8(7):1677–1708, 1995.
- [3882] Fernando Quirós and Julio D. Rossi. Blow-up sets and Fujita type curves for a degenerate parabolic system with nonlinear boundary conditions. *Indiana Univ. Math. J.*, 50(1):629–654, 2001.
- [3883] Pavol Quittner and Philippe Souplet. *Superlinear parabolic problems*. Birkhäuser Advanced Texts: Basler Lehrbücher. [Birkhäuser Advanced Texts: Basel Textbooks]. Birkhäuser/Springer, Cham, 2019. Blow-up, global existence and steady states, Second edition of [MR2346798].
- [3884] Balram S. Rajput and Jan Rosiński. Spectral representations of infinitely divisible processes. *Probab. Theory Related Fields*, 82(3):451–487, 1989.
- [3885] A. Rákos and G. M. Schütz. Current distribution and random matrix ensembles for an integrable asymmetric fragmentation process. *J. Stat. Phys.*, 118(3-4):511–530, 2005.
- [3886] Kavita Ramanan and Ofer Zeitouni. The quasi-stationary distribution for small random perturbations of certain one-dimensional maps. *Stochastic Process. Appl.*, 84(1):25–51, 1999.
- [3887] J. Ramanathan and O. Zeitouni. On the wavelet transform of fractional Brownian motion. *IEEE Trans. Inform. Theory*, 37(4):1156–1158, 1991.
- [3888] José A. Ramírez, Brian Rider, and Ofer Zeitouni. Hard edge tail asymptotics. *Electron. Commun. Probab.*, 16:741–752, 2011.
- [3889] Qikang Ran and Tusheng Zhang. Existence and uniqueness of bounded weak solutions of a semilinear parabolic PDE. *J. Theoret. Probab.*, 23(4):951–971, 2010.
- [3890] A. Ramachandra Rao and P. Bhimasankaram. *Linear algebra*, volume 19 of *Texts and Readings in Mathematics*. Hindustan Book Agency, New Delhi, second edition, 2000.

- [3891] Firas Rassoul-Agha, Timo Seppäläinen, and Atilla Yilmaz. Quenched free energy and large deviations for random walks in random potentials. *Comm. Pure Appl. Math.*, 66(2):202–244, 2013.
- [3892] Firas Rassoul-Agha, Timo Seppäläinen, and Atilla Yilmaz. Averaged vs. quenched large deviations and entropy for random walk in a dynamic random environment. *Electron. J. Probab.*, 22:Paper No. 57, 47, 2017.
- [3893] Firas Rassoul-Agha, Timo Seppäläinen, and Atilla Yilmaz. Variational formulas and disorder regimes of random walks in random potentials. *Bernoulli*, 23(1):405–431, 2017.
- [3894] Firas Rassoul-Agha and Timo Seppäläinen. An almost sure invariance principle for random walks in a space-time random environment. *Probab. Theory Related Fields*, 133(3):299–314, 2005.
- [3895] Firas Rassoul-Agha and Timo Seppäläinen. Ballistic random walk in a random environment with a forbidden direction. *ALEA Lat. Am. J. Probab. Math. Stat.*, 1:111–147, 2006.
- [3896] Firas Rassoul-Agha and Timo Seppäläinen. Quenched invariance principle for multidimensional ballistic random walk in a random environment with a forbidden direction. *Ann. Probab.*, 35(1):1–31, 2007.
- [3897] F. Rassoul-Agha and T. Seppäläinen. An almost sure invariance principle for additive functionals of Markov chains. *Statist. Probab. Lett.*, 78(7):854–860, 2008.
- [3898] Firas Rassoul-Agha and Timo Seppäläinen. Almost sure functional central limit theorem for ballistic random walk in random environment. *Ann. Inst. Henri Poincaré Probab. Stat.*, 45(2):373–420, 2009.
- [3899] Firas Rassoul-Agha and Timo Seppäläinen. Process-level quenched large deviations for random walk in random environment. *Ann. Inst. Henri Poincaré Probab. Stat.*, 47(1):214–242, 2011.
- [3900] Firas Rassoul-Agha and Timo Seppäläinen. Quenched point-to-point free energy for random walks in random potentials. *Probab. Theory Related Fields*, 158(3-4):711–750, 2014.
- [3901] Firas Rassoul-Agha and Timo Seppäläinen. *A course on large deviations with an introduction to Gibbs measures*, volume 162 of *Graduate Studies in Mathematics*. American Mathematical Society, Providence, RI, 2015.
- [3902] Michael Reed and Barry Simon. *Methods of modern mathematical physics. II. Fourier analysis, self-adjointness*. Academic Press [Harcourt Brace Jovanovich, Publishers], New York-London, 1975.
- [3903] Michael Reed and Barry Simon. *Methods of modern mathematical physics. IV. Analysis of operators*. Academic Press [Harcourt Brace Jovanovich, Publishers], New York-London, 1978.
- [3904] Michael Reed and Barry Simon. *Methods of modern mathematical physics. III*. Academic Press [Harcourt Brace Jovanovich, Publishers], New York-London, 1979. Scattering theory.
- [3905] Michael Reed and Barry Simon. *Methods of modern mathematical physics. I*. Academic Press, Inc. [Harcourt Brace Jovanovich, Publishers], New York, second edition, 1980. Functional analysis.
- [3906] James Reeds. Cracking a multiplicative congruential encryption algorithm. In *Information linkage between applied mathematics and industry (Proc. First Annual Workshop, Naval Postgraduate School, Monterey, Calif., 1978)*, pages 467–472. Academic Press, New York-London, 1979.

- [3907] Mark Reimers. One-dimensional stochastic partial differential equations and the branching measure diffusion. *Probab. Theory Related Fields*, 81(3):319–340, 1989.
- [3908] W. P. Reinhardt and P. L. Walker. Jacobian elliptic functions. In *NIST handbook of mathematical functions*, pages 549–568. U.S. Dept. Commerce, Washington, DC, 2010.
- [3909] W. P. Reinhardt and P. L. Walker. Theta functions. In *NIST handbook of mathematical functions*, pages 523–535. U.S. Dept. Commerce, Washington, DC, 2010.
- [3910] W. P. Reinhardt and P. L. Walker. Weierstrass elliptic and modular functions. In *NIST handbook of mathematical functions*, pages 569–585. U.S. Dept. Commerce, Washington, DC, 2010.
- [3911] R. Rempała and J. Zabczyk. On the maximum principle for deterministic impulse control problems. *J. Optim. Theory Appl.*, 59(2):281–288, 1988.
- [3912] Yao-Feng Ren and Han-Ying Liang. On the best constant in Marcinkiewicz-Zygmund inequality. *Statist. Probab. Lett.*, 53(3):227–233, 2001.
- [3913] Jiagang Ren and Xicheng Zhang. Freidlin-Wentzell’s large deviations for homeomorphism flows of non-Lipschitz SDEs. *Bull. Sci. Math.*, 129(8):643–655, 2005.
- [3914] Jiagang Ren and Xicheng Zhang. Schilder theorem for the Brownian motion on the diffeomorphism group of the circle. *J. Funct. Anal.*, 224(1):107–133, 2005.
- [3915] Jiagang Ren and Xicheng Zhang. Freidlin-Wentzell’s large deviations for stochastic evolution equations. *J. Funct. Anal.*, 254(12):3148–3172, 2008.
- [3916] Sidney I. Resnick. *Extreme values, regular variation, and point processes*, volume 4 of *Applied Probability. A Series of the Applied Probability Trust*. Springer-Verlag, New York, 1987.
- [3917] Daniel Revuz and Marc Yor. *Continuous martingales and Brownian motion*, volume 293 of *Grundlehren der mathematischen Wissenschaften [Fundamental Principles of Mathematical Sciences]*. Springer-Verlag, Berlin, 1991.
- [3918] Daniel Revuz and Marc Yor. *Continuous martingales and Brownian motion*, volume 293 of *Grundlehren der mathematischen Wissenschaften [Fundamental Principles of Mathematical Sciences]*. Springer-Verlag, Berlin, second edition, 1994.
- [3919] Daniel Revuz and Marc Yor. *Continuous martingales and Brownian motion*, volume 293 of *Grundlehren der mathematischen Wissenschaften [Fundamental Principles of Mathematical Sciences]*. Springer-Verlag, Berlin, third edition, 1999.
- [3920] Rémi Rhodes, Julien Sohier, and Vincent Vargas. Levy multiplicative chaos and star scale invariant random measures. *Ann. Probab.*, 42(2):689–724, 2014.
- [3921] Rémi Rhodes and Vincent Vargas. Multidimensional multifractal random measures. *Electron. J. Probab.*, 15:no. 9, 241–258, 2010.
- [3922] Rémi Rhodes and Vincent Vargas. KPZ formula for log-infinitely divisible multifractal random measures. *ESAIM Probab. Stat.*, 15:358–371, 2011.
- [3923] Rémi Rhodes and Vincent vargas. Lecture notes on gaussian multiplicative chaos and liouville quantum gravity. *Preprint arXiv:1602.07323*, February 2016.
- [3924] Lotfi Riahi. Estimates for Dirichlet heat kernels, intrinsic ultracontractivity and expected exit time on Lipschitz domains. *Commun. Math. Anal.*, 15(1):115–130, 2013.
- [3925] D. St. P. Richards. Functions of matrix argument. In *NIST handbook of mathematical functions*, pages 767–774. U.S. Dept. Commerce, Washington, DC, 2010.

- [3926] Matthew P. Richey and Craig A. Tracy.  $Z_n$  Baxter model: symmetries and the Belavin parametrization. *J. Statist. Phys.*, 42(3-4):311–348, 1986.
- [3927] Matthew P. Richey and Craig A. Tracy. Equation of state and isothermal compressibility for the hard hexagon model in the disordered regime. *J. Phys. A*, 20(16):L1121–L1126, 1987.
- [3928] Matthew P. Richey and Craig A. Tracy. Symmetry group for a completely symmetric vertex model. *J. Phys. A*, 20(10):2667–2677, 1987.
- [3929] Matthew P. Richey and Craig A. Tracy. Algorithms for the computation of polynomial relationships for the hard hexagon model. *Nuclear Phys. B*, 330(2-3):681–704, 1990.
- [3930] Raina S. Robeva and Loren D. Pitt. On the equality of sharp and germ  $\sigma$ -fields for Gaussian processes and fields. *Pliska Stud. Math. Bulgar.*, 16:183–205, 2004.
- [3931] Raina Stefanova Robeva. *The sharp Markov property for Gaussian random fields and a problem of spectral synthesis in certain function spaces*. ProQuest LLC, Ann Arbor, MI, 1997. Thesis (Ph.D.)—University of Virginia.
- [3932] R. Tyrrell Rockafellar. *Convex analysis*. Princeton Mathematical Series, No. 28. Princeton University Press, Princeton, N.J., 1970.
- [3933] Michael Röckner, Feng-Yu Wang, and Tusheng Zhang. Stochastic generalized porous media equations with reflection. *Stochastic Process. Appl.*, 123(11):3943–3962, 2013.
- [3934] Michael Röckner, Tusheng Zhang, and Xicheng Zhang. Large deviations for stochastic tamed 3D Navier-Stokes equations. *Appl. Math. Optim.*, 61(2):267–285, 2010.
- [3935] Michael Röckner and Tusheng Zhang. Stochastic evolution equations of jump type: existence, uniqueness and large deviation principles. *Potential Anal.*, 26(3):255–279, 2007.
- [3936] Michael Röckner and Tusheng Zhang. Stochastic 3D tamed Navier-Stokes equations: existence, uniqueness and small time large deviation principles. *J. Differential Equations*, 252(1):716–744, 2012.
- [3937] Michael Röckner and Tu Sheng Zhang. Uniqueness of generalized Schrödinger operators and applications. *J. Funct. Anal.*, 105(1):187–231, 1992.
- [3938] G. J. Rodgers and T. Nagao. Complex networks. In *The Oxford handbook of random matrix theory*, pages 898–911. Oxford Univ. Press, Oxford, 2011.
- [3939] Luigi Rodino. *Linear partial differential operators in Gevrey spaces*. World Scientific Publishing Co., Inc., River Edge, NJ, 1993.
- [3940] L. C. G. Rogers and David Williams. *Diffusions, Markov processes, and martingales. Vol. 2*. Cambridge Mathematical Library. Cambridge University Press, Cambridge, 2000. Itô calculus, Reprint of the second (1994) edition.
- [3941] Marco Romito. A simple method for the existence of a density for stochastic evolutions with rough coefficients. *Electron. J. Probab.*, 23:Paper no. 113, 43, 2018.
- [3942] Jay Rosen. The intersection local time of fractional Brownian motion in the plane. *J. Multivariate Anal.*, 23(1):37–46, 1987.
- [3943] Jay Rosen. Random walks and intersection local time. *Ann. Probab.*, 18(3):959–977, 1990.
- [3944] Julio D. Rossi and Noemi Wolanski. Global existence and nonexistence for a parabolic system with nonlinear boundary conditions. *Differential Integral Equations*, 11(1):179–190, 1998.
- [3945] Carles Rovira and Marta Sanz-Solé. Large deviations for stochastic Volterra equations in the plane. *Potential Anal.*, 12(4):359–383, 2000.

- [3946] C. Rovira and M. Sanz-Solé. Stochastic Volterra equations in the plane: smoothness of the law. *Stochastic Anal. Appl.*, 19(6):983–1004, 2001.
- [3947] Carles Rovira and Marta Sanz-Solé. A nonlinear hyperbolic SPDE: approximations and support. In *Stochastic partial differential equations (Edinburgh, 1994)*, volume 216 of *London Math. Soc. Lecture Note Ser.*, pages 241–261. Cambridge Univ. Press, Cambridge, 1995.
- [3948] Carles Rovira and Marta Sanz-Solé. The law of the solution to a nonlinear hyperbolic SPDE. *J. Theoret. Probab.*, 9(4):863–901, 1996.
- [3949] Carles Rovira and Marta Sanz-Solé. Anticipating stochastic differential equations: regularity of the law. *J. Funct. Anal.*, 143(1):157–179, 1997.
- [3950] Carles Rovira and Marta Sanz-Solé. Regularity of the law for a class of anticipating stochastic differential equations. In *Stochastic analysis and related topics, VI (Geilo, 1996)*, volume 42 of *Progr. Probab.*, pages 357–371. Birkhäuser Boston, Boston, MA, 1998.
- [3951] Carles Rovira and Samy Tindel. Sharp large deviation estimates for a certain class of sets on the Wiener space. *Bull. Sci. Math.*, 124(7):525–555, 2000.
- [3952] Carles Rovira and Samy Tindel. Sharp Laplace asymptotics for a parabolic SPDE. *Stochastics Stochastics Rep.*, 69(1-2):11–30, 2000.
- [3953] Carles Rovira and Samy Tindel. Sharp large deviation estimates for the stochastic heat equation. *Potential Anal.*, 14(4):409–435, 2001.
- [3954] C. Rovira and S. Tindel. Sharp Laplace asymptotics for a hyperbolic SPDE. In *Stochastic analysis and related topics, VII (Kusadasi, 1998)*, volume 48 of *Progr. Probab.*, pages 225–244. Birkhäuser Boston, Boston, MA, 2001.
- [3955] Carles Rovira and Samy Tindel. On the Brownian-directed polymer in a Gaussian random environment. *J. Funct. Anal.*, 222(1):178–201, 2005.
- [3956] R. Roy, F. W. J. Olver, R. A. Askey, and R. Wong. Algebraic and analytic methods. In *NIST handbook of mathematical functions*, pages 1–39. U.S. Dept. Commerce, Washington, DC, 2010.
- [3957] R. Roy and F. W. J. Olver. Elementary functions. In *NIST handbook of mathematical functions*, pages 103–134. U.S. Dept. Commerce, Washington, DC, 2010.
- [3958] Dipankar Roy and Rahul Pandit. One-dimensional Kardar-Parisi-Zhang and Kuramoto-Sivashinsky universality class: limit distributions. *Phys. Rev. E*, 101(3):030103(R), 6, 2020.
- [3959] H. L. Royden. *Real analysis*. The Macmillan Company, New York; Collier Macmillan Ltd., London, 1963.
- [3960] Thomas Royen. A simple proof of the Gaussian correlation conjecture extended to some multivariate gamma distributions. *Far East J. Theor. Stat.*, 48(2):139–145, 2014.
- [3961] Yu. A. Rozanov. *Markov random fields*. Applications of Mathematics. Springer-Verlag, New York-Berlin, 1982. Translated from the Russian by Constance M. Elson.
- [3962] B. L. Rozovski. *Stochastic evolution systems*, volume 35 of *Mathematics and its Applications (Soviet Series)*. Kluwer Academic Publishers Group, Dordrecht, 1990. Linear theory and applications to nonlinear filtering, Translated from the Russian by A. Yarkho.
- [3963] Mark Rudelson, Alex Samorodnitsky, and Ofer Zeitouni. Hafnians, perfect matchings and Gaussian matrices. *Ann. Probab.*, 44(4):2858–2888, 2016.
- [3964] Mark Rudelson and Ofer Zeitouni. Singular values of Gaussian matrices and permanent estimators. *Random Structures Algorithms*, 48(1):183–212, 2016.

- [3965] Walter Rudin. *Real and complex analysis*. McGraw-Hill Book Co., New York, third edition, 1987.
- [3966] Walter Rudin. *Functional analysis*. International Series in Pure and Applied Mathematics. McGraw-Hill, Inc., New York, second edition, 1991.
- [3967] David Ruelle. A mathematical reformulation of Derrida’s REM and GREM. *Comm. Math. Phys.*, 108(2):225–239, 1987.
- [3968] Thomas Runst and Winfried Sickel. *Sobolev spaces of fractional order, Nemytskij operators, and nonlinear partial differential equations*, volume 3 of *De Gruyter Series in Nonlinear Analysis and Applications*. Walter de Gruyter & Co., Berlin, 1996.
- [3969] Francesco Russo and Gerald Trutnau. Some parabolic PDEs whose drift is an irregular random noise in space. *Ann. Probab.*, 35(6):2213–2262, 2007.
- [3970] Francesco Russo and Pierre Vallois. Forward, backward and symmetric stochastic integration. *Probab. Theory Related Fields*, 97(3):403–421, 1993.
- [3971] Vyacheslav S. Rychkov. On restrictions and extensions of the Besov and Triebel-Lizorkin spaces with respect to Lipschitz domains. *J. London Math. Soc. (2)*, 60(1):237–257, 1999.
- [3972] Bruce E. Sagan. *The symmetric group*, volume 203 of *Graduate Texts in Mathematics*. Springer-Verlag, New York, second edition, 2001. Representations, combinatorial algorithms, and symmetric functions.
- [3973] Belkacem Said-Houari. Global existence for the Jordan-Moore-Gibson-Thompson equation in Besov spaces. *J. Evol. Equ.*, 22(2):32, 2022.
- [3974] Michael Salins, Amarjit Budhiraja, and Paul Dupuis. Uniform large deviation principles for Banach space valued stochastic evolution equations. *Trans. Amer. Math. Soc.*, 372(12):8363–8421, 2019.
- [3975] Michael Salins and Leila Setayeshgar. Uniform large deviations for a class of Burgers-type stochastic partial differential equations in any space dimension. *Potential Anal.*, 58(1):181–201, 2023.
- [3976] Michael Salins and Konstantinos Spiliopoulos. Markov processes with spatial delay: path space characterization, occupation time and properties. *Stoch. Dyn.*, 17(6):1750042, 21, 2017.
- [3977] Michael Salins and Konstantinos Spiliopoulos. Rare event simulation via importance sampling for linear SPDE’s. *Stoch. Partial Differ. Equ. Anal. Comput.*, 5(4):652–690, 2017.
- [3978] Michael Salins and Konstantinos Spiliopoulos. Metastability and exit problems for systems of stochastic reaction-diffusion equations. *Ann. Probab.*, 49(5):2317–2370, 2021.
- [3979] Michael Salins. *Asymptotic problems for stochastic partial differential equations*. ProQuest LLC, Ann Arbor, MI, 2015. Thesis (Ph.D.)—University of Maryland, College Park.
- [3980] Michael Salins. Equivalences and counterexamples between several definitions of the uniform large deviations principle. *Probab. Surv.*, 16:99–142, 2019.
- [3981] Michael Salins. Smoluchowski-Kramers approximation for the damped stochastic wave equation with multiplicative noise in any spatial dimension. *Stoch. Partial Differ. Equ. Anal. Comput.*, 7(1):86–122, 2019.
- [3982] M. Salins. Existence and uniqueness for the mild solution of the stochastic heat equation with non-Lipschitz drift on an unbounded spatial domain. *Stoch. Partial Differ. Equ. Anal. Comput.*, 9(3):714–745, 2021.

- [3983] Michael Salins. Global solutions to the stochastic heat equation with superlinear accretive reaction term and superlinear multiplicative noise term on a bounded spatial domain. *preprint arXiv:2110.10130*, October 2021.
- [3984] M. Salins. Systems of small-noise stochastic reaction-diffusion equations satisfy a large deviations principle that is uniform over all initial data. *Stochastic Process. Appl.*, 142:159–194, 2021.
- [3985] Michael Salins. Existence and uniqueness of global solutions to the stochastic heat equation with superlinear drift on an unbounded spatial domain. *Stoch. Dyn.*, 22(5):Paper No. 2250014, 30, 2022.
- [3986] Michael Salins. Global solutions to the stochastic reaction-diffusion equation with superlinear accretive reaction term and superlinear multiplicative noise term on a bounded spatial domain. *Trans. Amer. Math. Soc.*, 375(11):8083–8099, 2022.
- [3987] Michael Salins. Global solutions for the stochastic reaction-diffusion equation with superlinear multiplicative noise and strong dissipativity. *Electron. J. Probab.*, 27:Paper No. 12, 17, 2022.
- [3988] Laurent Saloff-Coste. The heat kernel and its estimates. In *Probabilistic approach to geometry*, volume 57 of *Adv. Stud. Pure Math.*, pages 405–436. Math. Soc. Japan, Tokyo, 2010.
- [3989] Laurent Saloff-Coste. A note on Poincaré, Sobolev, and Harnack inequalities. *Internat. Math. Res. Notices*, (2):27–38, 1992.
- [3990] Alexander A. Samarskii, Victor A. Galaktionov, Sergei P. Kurdyumov, and Alexander P. Mikhailov. *Blow-up in quasilinear parabolic equations*, volume 19 of *De Gruyter Expositions in Mathematics*. Walter de Gruyter & Co., Berlin, 1995. Translated from the 1987 Russian original by Michael Grinfeld and revised by the authors.
- [3991] A. A. Samarskiui and I. M. Sobol. Examples of numerical calculation of temperature waves. *Ž. Vyčisl. Mat i Mat. Fiz.*, 3:702–719, 1963.
- [3992] Stefan G. Samko, Anatoly A. Kilbas, and Oleg I. Marichev. *Fractional integrals and derivatives*. Gordon and Breach Science Publishers, Yverdon, 1993. Theory and applications, Edited and with a foreword by S. M. Nikolskiui, Translated from the 1987 Russian original, Revised by the authors.
- [3993] Paul-Marie Samson. Concentration of measure inequalities for Markov chains and  $\Phi$ -mixing processes. *Ann. Probab.*, 28(1):416–461, 2000.
- [3994] Silvia N. Santalla and Silvio C. Ferreira. Eden model with nonlocal growth rules and kinetic roughening in biological systems. *Phys. Rev. E*, 98:022405, Aug 2018.
- [3995] Marta Sanz i Solé. Combining observations and measuring uncertainty: history of an attempt to understand the world better. *Butl. Soc. Catalana Mat.*, (7):35–46, 1992.
- [3996] Marta Sanz-Solé, Michael Atiyah, Christian Bär, Gert-Martin Greuel, Yuri I. Manin, and Jean-Pierre Bourguignon. Friedrich Hirzebruch memorial session at the 6th European Congress of Mathematics. Kraków, July 5th, 2012. *Eur. Math. Soc. Newsl.*, (85):12–20, 2012.
- [3997] Marta Sanz-Solé and Paul Malliavin. Smoothness of the functional law generated by a nonlinear SPDE. *Chin. Ann. Math. Ser. B*, 29(2):113–120, 2008.
- [3998] Marta Sanz-Solé and Mònica Sarrà. Path properties of a class of Gaussian processes with applications to spde’s. In *Stochastic processes, physics and geometry: new interplays, I (Leipzig, 1999)*, volume 28 of *CMS Conf. Proc.*, pages 303–316. Amer. Math. Soc., Providence, RI, 2000.



- [3999] Marta Sanz-Solé and Mònica Sarrà. Hölder continuity for the stochastic heat equation with spatially correlated noise. In *Seminar on Stochastic Analysis, Random Fields and Applications, III (Ascona, 1999)*, volume 52 of *Progr. Probab.*, pages 259–268. Birkhäuser, Basel, 2002.
- [4000] Marta Sanz-Solé and Mònica Sarrà. Logarithmic estimates for the density of an anticipating stochastic differential equation. *Stochastic Process. Appl.*, 79(2):301–321, 1999.
- [4001] Marta Sanz-Solé and André Süß. The stochastic wave equation in high dimensions: Malliavin differentiability and absolute continuity. *Electron. J. Probab.*, 18:no. 64, 28, 2013.
- [4002] Marta Sanz-Solé and André Süß. Logarithmic asymptotics of the densities of SPDEs driven by spatially correlated noise. In *Stochastic analysis and applications 2014*, volume 100 of *Springer Proc. Math. Stat.*, pages 455–501. Springer, Cham, 2014.
- [4003] Marta Sanz-Solé and André Süß. Absolute continuity for SPDEs with irregular fundamental solution. *Electron. Commun. Probab.*, 20:no. 14, 11, 2015.
- [4004] Marta Sanz-Solé and André Süß. Non-elliptic SPDEs and ambit fields: existence of densities. In *Stochastics of environmental and financial economics—Centre of Advanced Study, Oslo, Norway, 2014–2015*, volume 138 of *Springer Proc. Math. Stat.*, pages 121–144. Springer, Cham, 2016.
- [4005] Marta Sanz-Solé and Iván Torrecilla-Tarantino. Probability density for a hyperbolic SPDE with time dependent coefficients. *ESAIM Probab. Stat.*, 11:365–380, 2007.
- [4006] Marta Sanz-Solé and Iván Torrecilla. A fractional Poisson equation: existence, regularity and approximations of the solution. *Stoch. Dyn.*, 9(4):519–548, 2009.
- [4007] Marta Sanz-Solé and Noèlia Viles. Systems of stochastic Poisson equations: hitting probabilities. *Stochastic Process. Appl.*, 128(6):1857–1888, 2018.
- [4008] Marta Sanz-Solé and Pierre-A. Vuillermot. Hölder-Sobolev regularity of solutions to a class of SPDE’s driven by a spatially colored noise. *C. R. Math. Acad. Sci. Paris*, 334(10):869–874, 2002.
- [4009] Marta Sanz-Solé and Pierre-A. Vuillermot. Equivalence and Hölder-Sobolev regularity of solutions for a class of non-autonomous stochastic partial differential equations. *Ann. Inst. H. Poincaré Probab. Statist.*, 39(4):703–742, 2003.
- [4010] Marta Sanz-Solé and Pierre A. Vuillermot. Mild solutions for a class of fractional SPDEs and their sample paths. *J. Evol. Equ.*, 9(2):235–265, 2009.
- [4011] Marta Sanz-Solé. Applications of Malliavin calculus to SPDE’s. In *Stochastic partial differential equations and applications (Trento, 2002)*, volume 227 of *Lecture Notes in Pure and Appl. Math.*, pages 429–442. Dekker, New York, 2002.
- [4012] Marta Sanz-Solé. *Malliavin calculus*. Fundamental Sciences. EPFL Press, Lausanne; distributed by CRC Press, Boca Raton, FL, 2005. With applications to stochastic partial differential equations.
- [4013] Marta Sanz-Solé. Properties of the density for a three-dimensional stochastic wave equation. *J. Funct. Anal.*, 255(1):255–281, 2008.
- [4014] Marta Sanz-Solé. Hitting the bull’s eye with random paths. *Butl. Soc. Catalana Mat.*, 25(1):81–99, 103, 2010.
- [4015] Marta Sanz-Solé. Friedrich Hirzebruch, 1927–2012, first president of the European Mathematical Society. *SCM Not.*, (33):12–13, 2013.

- [4016] Marta Sanz-Solé. From gambling to random modelling. *Lond. Math. Soc. Newsl.*, (482):20–24, 2019.
- [4017] Marta Sanz Solé. Stochastic differential calculus for processes with  $n$ -dimensional parameter. *Stochastica*, 2(4):51–70, 1978.
- [4018] Marta Sanz-Solé. Some remarks on stochastic differential equations in the plane with local Lipschitz coefficients. *Statist. Probab. Lett.*, 4(6):343–348, 1986.
- [4019] Marta Sanz. Local time for two-parameter continuous martingales with respect to the quadratic variation. *Ann. Probab.*, 16(2):778–792, 1988.
- [4020] Marta Sanz.  $r$ -variations for two-parameter continuous martingales and Itô’s formula. *Stochastic Process. Appl.*, 32(1):69–92, 1989.
- [4021] Andrey Sarantsev and Li-Cheng Tsai. Stationary gap distributions for infinite systems of competing Brownian particles. *Electron. J. Probab.*, 22:Paper No. 56, 20, 2017.
- [4022] Tomohiro Sasamoto and Herbert Spohn. Superdiffusivity of the 1D lattice Kardar-Parisi-Zhang equation. *J. Stat. Phys.*, 137(5-6):917–935, 2009.
- [4023] Tomohiro Sasamoto and Herbert Spohn. The crossover regime for the weakly asymmetric simple exclusion process. *J. Stat. Phys.*, 140(2):209–231, 2010.
- [4024] Tomohiro Sasamoto and Herbert Spohn. Exact height distributions for the KPZ equation with narrow wedge initial condition. *Nuclear Phys. B*, 834(3):523–542, 2010.
- [4025] T. Sasamoto. Spatial correlations of the 1D KPZ surface on a flat substrate. *J. Phys. A*, 38(33):L549–L556, 2005.
- [4026] Tomohiro Sasamoto. The 1D Kardar-Parisi-Zhang equation: height distribution and universality. *PTEP. Prog. Theor. Exp. Phys.*, (2):022A01, 15, 2016.
- [4027] Pavel Sasorov, Baruch Meerson, and Sylvain Prolhac. Large deviations of surface height in the  $1 + 1$ -dimensional Kardar-Parisi-Zhang equation: exact long-time results for  $\lambda H < 0$ . *J. Stat. Mech. Theory Exp.*, (6):063203, 13, 2017.
- [4028] Ken-iti Sato. *Lévy processes and infinitely divisible distributions*, volume 68 of *Cambridge Studies in Advanced Mathematics*. Cambridge University Press, Cambridge, 2013. Translated from the 1990 Japanese original, Revised edition of the 1999 English translation.
- [4029] Ken-iti Sato. *Lévy processes and infinitely divisible distributions*, volume 68 of *Cambridge Studies in Advanced Mathematics*. Cambridge University Press, Cambridge, 1999. Translated from the 1990 Japanese original, Revised by the author.
- [4030] Anamaria Savu. Hydrodynamic scaling limit of continuum solid-on-solid model. *J. Appl. Math.*, pages Art. ID 69101, 37, 2006.
- [4031] Enrico Scalas. Five years of continuous-time random walks in econophysics. In *The complex networks of economic interactions*, volume 567 of *Lecture Notes in Econom. and Math. Systems*, pages 3–16. Springer, Berlin, 2006.
- [4032] Lothar Schäfer, Christian von Ferber, Ulrike Lehr, and Bertrand Duplantier. Renormalization of polymer networks and stars. *Nuclear Phys. B*, 374(3):473–495, 1992.
- [4033] René L. Schilling, Renming Song, and Zoran Vondraček. *Bernstein functions*, volume 37 of *De Gruyter Studies in Mathematics*. Walter de Gruyter & Co., Berlin, 2010. Theory and applications.
- [4034] Thorsten Schmidt and Jerzy Zabczyk. CDO term structure modelling with Lévy processes and the relation to market models. *Int. J. Theor. Appl. Finance*, 15(1):1250008, 19, 2012.

- [4035] W. R. Schneider and W. Wyss. Fractional diffusion and wave equations. *J. Math. Phys.*, 30(1):134–144, 1989.
- [4036] W. R. Schneider. Completely monotone generalized Mittag-Leffler functions. *Exposition. Math.*, 14(1):3–16, 1996.
- [4037] R. D. Schram, G. T. Barkema, and R. H. Bisseling. Exact enumeration of self-avoiding walks. *J. Stat. Mech. Theory Exp.*, (6):P06019, 8, 2011.
- [4038] Lawrence S. Schulman. *Techniques and applications of path integration*. A Wiley-Interscience Publication. John Wiley & Sons, Inc., New York, 1981.
- [4039] Scott Schumacher. Diffusions with random coefficients. In *Particle systems, random media and large deviations (Brunswick, Maine, 1984)*, volume 41 of *Contemp. Math.*, pages 351–356. Amer. Math. Soc., Providence, RI, 1985.
- [4040] Gunter M. Schütz. Exact solution of the master equation for the asymmetric exclusion process. *J. Statist. Phys.*, 88(1-2):427–445, 1997.
- [4041] Jan Seidler and Takuya Sobukawa. Exponential integrability of stochastic convolutions. *J. London Math. Soc. (2)*, 67(1):245–258, 2003.
- [4042] Jan Seidler. Exponential estimates for stochastic convolutions in 2-smooth Banach spaces. *Electron. J. Probab.*, 15:no. 50, 1556–1573, 2010.
- [4043] Timo Seppäläinen and Joachim Krug. Hydrodynamics and platoon formation for a totally asymmetric exclusion model with particlewise disorder. *J. Statist. Phys.*, 95(3-4):525–567, 1999.
- [4044] Timo Seppäläinen and Sunder Sethuraman. Transience of second-class particles and diffusive bounds for additive functionals in one-dimensional asymmetric exclusion processes. *Ann. Probab.*, 31(1):148–169, 2003.
- [4045] Timo Seppäläinen and Xiao Shen. Coalescence estimates for the corner growth model with exponential weights. *Electron. J. Probab.*, 25:Paper No. 85, 31, 2020.
- [4046] Timo Seppäläinen and Benedek Valkó. Bounds for scaling exponents for a 1 + 1 dimensional directed polymer in a Brownian environment. *ALEA Lat. Am. J. Probab. Math. Stat.*, 7:451–476, 2010.
- [4047] Timo Seppäläinen and J. E. Yukich. Large deviation principles for Euclidean functionals and other nearly additive processes. *Probab. Theory Related Fields*, 120(3):309–345, 2001.
- [4048] Timo Seppäläinen and Yun Zhai. Hammersley’s harness process: invariant distributions and height fluctuations. *Ann. Inst. Henri Poincaré Probab. Stat.*, 53(1):287–321, 2017.
- [4049] Timo Seppäläinen. Strong law of large numbers for the interface in ballistic deposition. *Ann. Inst. H. Poincaré Probab. Statist.*, 36(6):691–736, 2000.
- [4050] Timo Seppäläinen. A variational coupling for a totally asymmetric exclusion process with long jumps but no passing. In *Hydrodynamic limits and related topics (Toronto, ON, 1998)*, volume 27 of *Fields Inst. Commun.*, pages 117–130. Amer. Math. Soc., Providence, RI, 2000.
- [4051] Timo Seppäläinen. Hydrodynamic profiles for the totally asymmetric exclusion process with a slow bond. *J. Statist. Phys.*, 102(1-2):69–96, 2001.
- [4052] Timo Seppäläinen. Perturbation of the equilibrium for a totally asymmetric stick process in one dimension. *Ann. Probab.*, 29(1):176–204, 2001.
- [4053] Timo Seppäläinen. Second class particles as microscopic characteristics in totally asymmetric nearest-neighbor  $K$ -exclusion processes. *Trans. Amer. Math. Soc.*, 353(12):4801–4829, 2001.

- [4054] Timo Seppäläinen. Diffusive fluctuations for one-dimensional totally asymmetric interacting random dynamics. *Comm. Math. Phys.*, 229(1):141–182, 2002.
- [4055] Timo Seppäläinen. Second-order fluctuations and current across characteristic for a one-dimensional growth model of independent random walks. *Ann. Probab.*, 33(2):759–797, 2005.
- [4056] Timo Seppäläinen. A growth model in multiple dimensions and the height of a random partial order. In *Asymptotics: particles, processes and inverse problems*, volume 55 of *IMS Lecture Notes Monogr. Ser.*, pages 204–233. Inst. Math. Statist., Beachwood, OH, 2007.
- [4057] Timo Seppäläinen. Directed random growth models on the plane. In *Analysis and stochastics of growth processes and interface models*, pages 9–38. Oxford Univ. Press, Oxford, 2008.
- [4058] Timo Seppäläinen. *Current fluctuations for stochastic particle systems with drift in one spatial dimension*, volume 18 of *Ensaaios Matemáticos [Mathematical Surveys]*. Sociedade Brasileira de Matemática, Rio de Janeiro, 2010.
- [4059] Timo Seppäläinen. Scaling for a one-dimensional directed polymer with boundary conditions. *Ann. Probab.*, 40(1):19–73, 2012.
- [4060] Timo Seppäläinen. Variational formulas for directed polymer and percolation models. In *Proceedings of the International Congress of Mathematicians—Seoul 2014. Vol. IV*, pages 185–197. Kyung Moon Sa, Seoul, 2014.
- [4061] Timo Seppäläinen. Erratum to “Scaling for a one-dimensional directed polymer with boundary conditions” [MR2917766]. *Ann. Probab.*, 45(3):2056–2058, 2017.
- [4062] Timo Seppäläinen. The corner growth model with exponential weights. In *Random growth models*, volume 75 of *Proc. Sympos. Appl. Math.*, pages 133–201. Amer. Math. Soc., Providence, RI, 2018.
- [4063] Timo Seppäläinen. Existence, uniqueness and coalescence of directed planar geodesics: proof via the increment-stationary growth process. *Ann. Inst. Henri Poincaré Probab. Stat.*, 56(3):1775–1791, 2020.
- [4064] Timo Olavi Seppäläinen. *Large deviations for processes with stationarily random distributions*. ProQuest LLC, Ann Arbor, MI, 1991. Thesis (Ph.D.)—University of Minnesota.
- [4065] Timo Seppäläinen. Large deviations for lattice systems. II. Nonstationary independent fields. *Probab. Theory Related Fields*, 97(1-2):103–112, 1993.
- [4066] Timo Seppäläinen. Large deviations for lattice systems. I. Parametrized independent fields. *Probab. Theory Related Fields*, 96(2):241–260, 1993.
- [4067] Timo Seppäläinen. Large deviations for Markov chains with random transitions. *Ann. Probab.*, 22(2):713–748, 1994.
- [4068] Timo Seppäläinen. Entropy, limit theorems, and variational principles for disordered lattice systems. *Comm. Math. Phys.*, 171(2):233–277, 1995.
- [4069] Timo Seppäläinen. Maximum entropy principles for disordered spins. *Probab. Theory Related Fields*, 101(4):547–576, 1995.
- [4070] Timo Seppäläinen. A microscopic model for the Burgers equation and longest increasing subsequences. *Electron. J. Probab.*, 1:no. 5, approx. 51 pp., 1996.
- [4071] Timo Seppäläinen. Increasing sequences of independent points on the planar lattice. *Ann. Appl. Probab.*, 7(4):886–898, 1997.
- [4072] Timo Seppäläinen. A scaling limit for queues in series. *Ann. Appl. Probab.*, 7(4):855–872, 1997.

- [4073] T. Seppäläinen. Coupling the totally asymmetric simple exclusion process with a moving interface. volume 4, pages 593–628. 1998. I Brazilian School in Probability (Rio de Janeiro, 1997).
- [4074] Timo Seppäläinen. Entropy for translation-invariant random-cluster measures. *Ann. Probab.*, 26(3):1139–1178, 1998.
- [4075] Timo Seppäläinen. Exact limiting shape for a simplified model of first-passage percolation on the plane. *Ann. Probab.*, 26(3):1232–1250, 1998.
- [4076] T. Seppäläinen. Hydrodynamic scaling, convex duality and asymptotic shapes of growth models. *Markov Process. Related Fields*, 4(1):1–26, 1998.
- [4077] Timo Seppäläinen. Large deviations for increasing sequences on the plane. *Probab. Theory Related Fields*, 112(2):221–244, 1998.
- [4078] Timo Seppäläinen. Existence of hydrodynamics for the totally asymmetric simple  $K$ -exclusion process. *Ann. Probab.*, 27(1):361–415, 1999.
- [4079] Timo Seppäläinen. Recent results and open problems on the hydrodynamics of disordered asymmetric exclusion and zero-range processes. volume 4, pages 1–15. 1999. II Brazilian School of Probability (Portuguese) (Barra de Sahy, 1998).
- [4080] Inbar Seroussi and Ofer Zeitouni. Lower bounds on the generalization error of nonlinear learning models. *IEEE Trans. Inform. Theory*, 68(12):7956–7970, 2022.
- [4081] Mira Shamis and Ofer Zeitouni. The Curie-Weiss model with complex temperature: phase transitions. *J. Stat. Phys.*, 172(2):569–591, 2018.
- [4082] S. F. Shandarin and Ya. B. Zeldovich. The large-scale structure of the universe: turbulence, intermittency, structures in a self-gravitating medium. *Rev. Modern Phys.*, 61(2):185–220, 1989.
- [4083] Shijie Shang, Jianliang Zhai, and Tusheng Zhang. Strong solutions for a stochastic model of two-dimensional second grade fluids driven by Lévy noise. *J. Math. Anal. Appl.*, 471(1-2):126–146, 2019.
- [4084] Shijie Shang and Tusheng Zhang. Talagrand concentration inequalities for stochastic heat-type equations under uniform distance. *Electron. J. Probab.*, 24:Paper No. 129, 15, 2019.
- [4085] Shijie Shang and Tusheng Zhang. Approximations of stochastic Navier-Stokes equations. *Stochastic Process. Appl.*, 130(4):2407–2432, 2020.
- [4086] Shijie Shang and Tusheng Zhang. Global well-posedness to stochastic reaction-diffusion equations on the real line  $R$  with superlinear drifts driven by multiplicative space-time white noise. *preprint arXiv:2106.02879*, June 2021.
- [4087] Shijie Shang and Tusheng Zhang. Stochastic heat equations with logarithmic nonlinearity. *J. Differential Equations*, 313:85–121, 2022.
- [4088] Daniel F. Shea and Stephen Wainger. Variants of the Wiener-Lévy theorem, with applications to stability problems for some Volterra integral equations. *Amer. J. Math.*, 97:312–343, 1975.
- [4089] Scott Sheffield. Random surfaces. *Astérisque*, (304):vi+175, 2005.
- [4090] Scott Sheffield. Gaussian free fields for mathematicians. *Probab. Theory Related Fields*, 139(3-4):521–541, 2007.
- [4091] Hao Shen and Li-Cheng Tsai. Stochastic telegraph equation limit for the stochastic six vertex model. *Proc. Amer. Math. Soc.*, 147(6):2685–2705, 2019.

- [4092] Zhongwei Shen. A relationship between the Dirichlet and regularity problems for elliptic equations. *Math. Res. Lett.*, 14(2):205–213, 2007.
- [4093] Larry A. Shepp and Ofer Zeitouni. A note on conditional exponential moments and Onsager-Machlup functionals. *Ann. Probab.*, 20(2):652–654, 1992.
- [4094] L. A. Shepp and O. Zeitouni. Exponential estimates for convex norms and some applications. In *Barcelona Seminar on Stochastic Analysis (St. Feliu de Guíxols, 1991)*, volume 32 of *Progr. Probab.*, pages 203–215. Birkhäuser, Basel, 1993.
- [4095] B. Sherman. A general one-phase Stefan problem. *Quart. Appl. Math.*, 28:377–382, 1970.
- [4096] David Sherrington and Scott Kirkpatrick. Solvable model of a spin-glass. *Phys. Rev. Lett.*, 35:1792–1796, Dec 1975.
- [4097] Zhan Shi. *Branching random walks*, volume 2151 of *Lecture Notes in Mathematics*. Springer, Cham, 2015. Lecture notes from the 42nd Probability Summer School held in Saint Flour, 2012, École d’Été de Probabilités de Saint-Flour. [Saint-Flour Probability Summer School].
- [4098] Zhan Shi. A local time curiosity in random environment. *Stochastic Process. Appl.*, 76(2):231–250, 1998.
- [4099] Tokuzo Shiga and Akinobu Shimizu. Infinite-dimensional stochastic differential equations and their applications. *J. Math. Kyoto Univ.*, 20(3):395–416, 1980.
- [4100] Tokuzo Shiga. Ergodic theorems and exponential decay of sample paths for certain interacting diffusion systems. *Osaka J. Math.*, 29(4):789–807, 1992.
- [4101] Tokuzo Shiga. Two contrasting properties of solutions for one-dimensional stochastic partial differential equations. *Canad. J. Math.*, 46(2):415–437, 1994.
- [4102] Gregory Shinault and Craig A. Tracy. Asymptotics for the covariance of the  $\text{Airy}_2$  process. *J. Stat. Phys.*, 143(1):60–71, 2011.
- [4103] Andrzej Sierociński and Jerzy Zabczyk. On a packing problem. In *Stochastic systems and optimization (Warsaw, 1988)*, volume 136 of *Lect. Notes Control Inf. Sci.*, pages 356–359. Springer, Berlin, 1989.
- [4104] Andrzej Sierociński and Jerzy Zabczyk. On a packing problem. *Bull. Polish Acad. Sci. Math.*, 37(1-6):305–313 (1990), 1989.
- [4105] M. L. Silverstein. A new approach to local times. *J. Math. Mech.*, 17:1023–1054, 1967/1968.
- [4106] Barry Simon. *Trace ideals and their applications*, volume 120 of *Mathematical Surveys and Monographs*. American Mathematical Society, Providence, RI, second edition, 2005.
- [4107] Thomas Simon. Comparing Fréchet and positive stable laws. *Electron. J. Probab.*, 19:no. 16, 25, 2014.
- [4108] Barry Simon. *The  $P(\phi)_2$  Euclidean (quantum) field theory*. Princeton Series in Physics. Princeton University Press, Princeton, N.J., 1974.
- [4109] Barry Simon. Notes on infinite determinants of Hilbert space operators. *Advances in Math.*, 24(3):244–273, 1977.
- [4110] Barry Simon. *Functional integration and quantum physics*, volume 86 of *Pure and Applied Mathematics*. Academic Press, Inc. [Harcourt Brace Jovanovich, Publishers], New York-London, 1979.
- [4111] Yakov G. Sinai. A remark concerning random walks with random potentials. *Fund. Math.*, 147(2):173–180, 1995.

- [4112] Ya. G. Sinai. The limit behavior of a one-dimensional random walk in a random environment. *Teor. Veroyatnost. i Primenen.*, 27(2):247–258, 1982.
- [4113] A. V. Skorohod. Limit theorems for stochastic processes. *Teor. Veroyatnost. i Primenen.*, 1:289–319, 1956.
- [4114] Georgios Skoulakis and Robert J. Adler. Superprocesses over a stochastic flow. *Ann. Appl. Probab.*, 11(2):488–543, 2001.
- [4115] Gordon Slade and Alexandre Tomberg. Critical correlation functions for the 4-dimensional weakly self-avoiding walk and  $n$ -component  $|\varphi|^4$  model. *Comm. Math. Phys.*, 342(2):675–737, 2016.
- [4116] G. Slade. *The lace expansion and its applications*, volume 1879 of *Lecture Notes in Mathematics*. Springer-Verlag, Berlin, 2006. Lectures from the 34th Summer School on Probability Theory held in Saint-Flour, July 6–24, 2004, Edited and with a foreword by Jean Picard.
- [4117] Gordon Slade. Critical exponents for long-range  $O(n)$  models below the upper critical dimension. *Comm. Math. Phys.*, 358(1):343–436, 2018.
- [4118] Gordon Slade. Self-avoiding walk, spin systems and renormalization. *Proc. A.*, 475(2221):20180549, 21, 2019.
- [4119] B. D. Sleeman and V. B. Kuznetsov. Heun functions. In *NIST handbook of mathematical functions*, pages 709–721. U.S. Dept. Commerce, Washington, DC, 2010.
- [4120] David Slepian. The one-sided barrier problem for Gaussian noise. *Bell System Tech. J.*, 41:463–501, 1962.
- [4121] Joel Smoller. *Shock waves and reaction-diffusion equations*, volume 258 of *Grundlehren der Mathematischen Wissenschaften [Fundamental Principles of Mathematical Sciences]*. Springer-Verlag, New York-Berlin, 1983.
- [4122] S. L. Soboleff. Sur la presque périodicité des solutions de l'équation des ondes. II. *C. R. (Doklady) Acad. Sci. URSS (N. S.)*, 48:618–620, 1945.
- [4123] P. E. Sobolevskii. Equations of parabolic type in a Banach space. *Trudy Moskov. Mat. Obšč.*, 10:297–350, 1961.
- [4124] I. M. Sokolov and J. Klafter. From diffusion to anomalous diffusion: a century after Einstein's Brownian motion. *Chaos*, 15(2):026103, 7, 2005.
- [4125] H. M. Soner and P. E. Souganidis. Singularities and uniqueness of cylindrically symmetric surfaces moving by mean curvature. *Comm. Partial Differential Equations*, 18(5-6):859–894, 1993.
- [4126] Jian Song, Xiaoming Song, and Fangjun Xu. Fractional stochastic wave equation driven by a Gaussian noise rough in space. *Bernoulli*, 26(4):2699–2726, 2020.
- [4127] Jian Song and Samy Tindel. Skorohod and Stratonovich integrals for controlled processes. *Stochastic Process. Appl.*, 150:569–595, 2022.
- [4128] Renming Song and Zoran Vondraček. Potential theory of subordinate killed Brownian motion in a domain. *Probab. Theory Related Fields*, 125(4):578–592, 2003.
- [4129] Renming Song and Xian Yin Zhou. A remark on diffusion of directed polymers in random environments. *J. Statist. Phys.*, 85(1-2):277–289, 1996.
- [4130] Jian Song. Asymptotic behavior of the solution of heat equation driven by fractional white noise. *Statist. Probab. Lett.*, 82(3):614–620, 2012.

- [4131] Jian Song. On a class of stochastic partial differential equations. *Stochastic Process. Appl.*, 127(1):37–79, 2017.
- [4132] A. Soshnikov. Determinantal random point fields. *Uspekhi Mat. Nauk*, 55(5(335)):107–160, 2000.
- [4133] Philippe Souplet. Uniform blow-up profiles and boundary behavior for diffusion equations with nonlocal nonlinear source. *J. Differential Equations*, 153(2):374–406, 1999.
- [4134] Richard B. Sowers. Large deviations for a reaction-diffusion equation with non-Gaussian perturbations. *Ann. Probab.*, 20(1):504–537, 1992.
- [4135] Frank Spitzer. Interaction of Markov processes. *Advances in Math.*, 5:246–290 (1970), 1970.
- [4136] Frank Spitzer. Infinite systems with locally interacting components. *Ann. Probab.*, 9(3):349–364, 1981.
- [4137] Herbert Spohn. Exact solutions for KPZ-type growth processes, random matrices, and equilibrium shapes of crystals. *Phys. A*, 369(1):71–99, 2006.
- [4138] H. Spohn. *Large scale dynamics of interacting particles*. Theoretical and Mathematical Physics. Springer Berlin Heidelberg, 2012.
- [4139] S. S. Sritharan and P. Sundar. Large deviations for the two-dimensional Navier-Stokes equations with multiplicative noise. *Stochastic Process. Appl.*, 116(11):1636–1659, 2006.
- [4140] H. M. Srivastava and Junesang Choi. *Series associated with the zeta and related functions*. Kluwer Academic Publishers, Dordrecht, 2001.
- [4141] Richard P. Stanley. *Enumerative combinatorics. Volume 1*, volume 49 of *Cambridge Studies in Advanced Mathematics*. Cambridge University Press, Cambridge, second edition, 2012.
- [4142] Plamen Stefanov and Samy Tindel. Sampling linear inverse problems with noise. *Asymptot. Anal.*, 132(3-4):331–382, 2023.
- [4143] Elias M. Stein and Rami Shakarchi. *Complex analysis*, volume 2 of *Princeton Lectures in Analysis*. Princeton University Press, Princeton, NJ, 2003.
- [4144] Elias M. Stein and Rami Shakarchi. *Fourier analysis*, volume 1 of *Princeton Lectures in Analysis*. Princeton University Press, Princeton, NJ, 2003. An introduction.
- [4145] Elias M. Stein and Guido Weiss. *Introduction to Fourier analysis on Euclidean spaces*. Princeton Mathematical Series, No. 32. Princeton University Press, Princeton, N.J., 1971.
- [4146] Elias M. Stein. *Singular integrals and differentiability properties of functions*. Princeton Mathematical Series, No. 30. Princeton University Press, Princeton, N.J., 1970.
- [4147] Elias M. Stein. *Harmonic analysis: real-variable methods, orthogonality, and oscillatory integrals*, volume 43 of *Princeton Mathematical Series*. Princeton University Press, Princeton, NJ, 1993. With the assistance of Timothy S. Murphy, Monographs in Harmonic Analysis, III.
- [4148] Michael L. Stein. *Interpolation of spatial data*. Springer Series in Statistics. Springer-Verlag, New York, 1999. Some theory for Kriging.
- [4149] Y. Steinberg and O. Zeitouni. On tests for normality. *IEEE Trans. Inform. Theory*, 38(6):1779–1787, 1992.
- [4150] K. Stewartson and J. T. Stuart. A non-linear instability theory for a wave system in plane Poiseuille flow. *J. Fluid Mech.*, 48:529–545, 1971.



- [4151] Britt-Marie Stocke. Differentiability properties of Bessel potentials and Besov functions. *Ark. Mat.*, 22(2):269–286, 1984.
- [4152] Jordan M. Stoyanov. *Counterexamples in probability*. Dover Publications, Inc., Mineola, NY, 2013. Third edition of [ MR0930671], Revised, corrected and amended reprint of the second edition [ MR3444842].
- [4153] Robert S. Strichartz. Multipliers on fractional Sobolev spaces. *J. Math. Mech.*, 16:1031–1060, 1967.
- [4154] C. Stricker and M. Yor. Calcul stochastique dépendant d’un paramètre. *Z. Wahrsch. Verw. Gebiete*, 45(2):109–133, 1978.
- [4155] Daniel W. Stroock and S. R. Srinivasa Varadhan. *Multidimensional diffusion processes*. Classics in Mathematics. Springer-Verlag, Berlin, 2006. Reprint of the 1997 edition.
- [4156] Daniel W. Stroock and S. R. S. Varadhan. On the support of diffusion processes with applications to the strong maximum principle. In *Proceedings of the Sixth Berkeley Symposium on Mathematical Statistics and Probability (Univ. California, Berkeley, Calif., 1970/1971), Vol. III: Probability theory*, pages 333–359, 1972.
- [4157] Daniel W. Stroock and Ofer Zeitouni. Microcanonical distributions, Gibbs states, and the equivalence of ensembles. In *Random walks, Brownian motion, and interacting particle systems*, volume 28 of *Progr. Probab.*, pages 399–424. Birkhäuser Boston, Boston, MA, 1991.
- [4158] D. W. Stroock and O. Zeitouni. Variations on a theme by Bismut. Number 236, pages 291–301. 1996. Hommage à P. A. Meyer et J. Neveu.
- [4159] Daniel W. Stroock. *Probability theory*. Cambridge University Press, Cambridge, second edition, 2011. An analytic view.
- [4160] Daniel W. Stroock. *An introduction to Markov processes*, volume 230 of *Graduate Texts in Mathematics*. Springer, Heidelberg, second edition, 2014.
- [4161] Daniel W. Stroock. Some applications of stochastic calculus to partial differential equations. In *Eleventh Saint Flour probability summer school—1981 (Saint Flour, 1981)*, volume 976 of *Lecture Notes in Math.*, pages 267–382. Springer, Berlin, 1983.
- [4162] D. W. Stroock. *An introduction to the theory of large deviations*. Universitext. Springer-Verlag, New York, 1984.
- [4163] Anja Sturm. On convergence of population processes in random environments to the stochastic heat equation with colored noise. *Electron. J. Probab.*, 8:no. 6, 39, 2003.
- [4164] Zhong-gen Su, Yu-huan Lei, and Tian Shen. Tracy-Widom distribution,  $\text{Airy}_2$  process and its sample path properties. *Appl. Math. J. Chinese Univ. Ser. B*, 36(1):128–158, 2021.
- [4165] Eliran Subag and Ofer Zeitouni. Freezing and decorated Poisson point processes. *Comm. Math. Phys.*, 337(1):55–92, 2015.
- [4166] Eliran Subag and Ofer Zeitouni. The extremal process of critical points of the pure  $p$ -spin spherical spin glass model. *Probab. Theory Related Fields*, 168(3-4):773–820, 2017.
- [4167] Eliran Subag and Ofer Zeitouni. Concentration of the complexity of spherical pure  $p$ -spin models at arbitrary energies. *J. Math. Phys.*, 62(12):Paper No. 123301, 15, 2021.
- [4168] V. N. Sudakov and B. S. Cirelson. Extremal properties of half-spaces for spherically invariant measures. *Zap. Naučn. Sem. Leningrad. Otdel. Mat. Inst. Steklov. (LOMI)*, 41:14–24, 165, 1974. Problems in the theory of probability distributions, II.

- [4169] Fumihiko Sugino and Osamu Tsuchiya. Critical behavior in  $c = 1$  matrix model with branching interactions. *Modern Phys. Lett. A*, 9(34):3149–3162, 1994.
- [4170] Sadao Sugitani. Some properties for the measure-valued branching diffusion processes. *J. Math. Soc. Japan*, 41(3):437–462, 1989.
- [4171] Bill Sutherland. *Beautiful models*. World Scientific Publishing Co., Inc., River Edge, NJ, 2004. 70 years of exactly solved quantum many-body problems.
- [4172] Andrzej Świech and Jerzy Zabczyk. Uniqueness for integro-PDE in Hilbert spaces. *Potential Anal.*, 38(1):233–259, 2013.
- [4173] Andrzej Świech and Jerzy Zabczyk. Integro-PDE in Hilbert spaces: existence of viscosity solutions. *Potential Anal.*, 45(4):703–736, 2016.
- [4174] Andrzej Świech and Jerzy Zabczyk. Large deviations for stochastic PDE with Lévy noise. *J. Funct. Anal.*, 260(3):674–723, 2011.
- [4175] K. Symanzik. Regularized quantum field theory. In *New developments in quantum field theory and statistical mechanics (Proc. Cargèse Summer Inst., Cargèse, 1976)*, volume 26 of *NATO Adv. Study Inst. Ser. B: Physics*, pages 265–279. Plenum, New York-London, 1977.
- [4176] Alain-Sol Sznitman and Ofer Zeitouni. On the diffusive behavior of isotropic diffusions in a random environment. *C. R. Math. Acad. Sci. Paris*, 339(6):429–434, 2004.
- [4177] Alain-Sol Sznitman and Ofer Zeitouni. An invariance principle for isotropic diffusions in random environment. *Invent. Math.*, 164(3):455–567, 2006.
- [4178] Alain-Sol Sznitman. Brownian asymptotics in a Poissonian environment. *Probab. Theory Related Fields*, 95(2):155–174, 1993.
- [4179] Alain-Sol Sznitman. Brownian survival among Gibbsian traps. *Ann. Probab.*, 21(1):490–508, 1993.
- [4180] Alain-Sol Sznitman. *Brownian motion, obstacles and random media*. Springer Monographs in Mathematics. Springer-Verlag, Berlin, 1998.
- [4181] Kazumasa A Takeuchi, Masaki Sano, Tomohiro Sasamoto, and Herbert Spohn. Growing interfaces uncover universal fluctuations behind scale invariance. *Sci. Rep.*, 1(1):1–5, 2011.
- [4182] Kazumasa A. Takeuchi and Masaki Sano. Universal fluctuations of growing interfaces: Evidence in turbulent liquid crystals. *Phys. Rev. Lett.*, 104:230601, Jun 2010.
- [4183] Michel Talagrand. Gaussian averages, Bernoulli averages, and Gibbs’ measures. volume 21, pages 197–204. 2002. Random structures and algorithms (Poznan, 2001).
- [4184] Michel Talagrand. On Guerra’s broken replica-symmetry bound. *C. R. Math. Acad. Sci. Paris*, 337(7):477–480, 2003.
- [4185] Michel Talagrand. *Spin glasses: a challenge for mathematicians*, volume 46 of *Ergebnisse der Mathematik und ihrer Grenzgebiete. 3. Folge. A Series of Modern Surveys in Mathematics [Results in Mathematics and Related Areas. 3rd Series. A Series of Modern Surveys in Mathematics]*. Springer-Verlag, Berlin, 2003. Cavity and mean field models.
- [4186] Michel Talagrand. Parisi measures. *J. Funct. Anal.*, 231(2):269–286, 2006.
- [4187] Michel Talagrand. The Parisi formula. *Ann. of Math. (2)*, 163(1):221–263, 2006.
- [4188] Michel Talagrand. Construction of pure states in mean field models for spin glasses. *Probab. Theory Related Fields*, 148(3-4):601–643, 2010.

- [4189] Michel Talagrand. *Mean field models for spin glasses. Volume I*, volume 54 of *Ergebnisse der Mathematik und ihrer Grenzgebiete. 3. Folge. A Series of Modern Surveys in Mathematics [Results in Mathematics and Related Areas. 3rd Series. A Series of Modern Surveys in Mathematics]*. Springer-Verlag, Berlin, 2011. Basic examples.
- [4190] Michel Talagrand. *Mean field models for spin glasses. Volume II*, volume 55 of *Ergebnisse der Mathematik und ihrer Grenzgebiete. 3. Folge. A Series of Modern Surveys in Mathematics [Results in Mathematics and Related Areas. 3rd Series. A Series of Modern Surveys in Mathematics]*. Springer, Heidelberg, 2011. Advanced replica-symmetry and low temperature.
- [4191] M. Talagrand. Sharper bounds for Gaussian and empirical processes. *Ann. Probab.*, 22(1):28–76, 1994.
- [4192] Michel Talagrand. The small ball problem for the Brownian sheet. *Ann. Probab.*, 22(3):1331–1354, 1994.
- [4193] Michel Talagrand. Concentration of measure and isoperimetric inequalities in product spaces. *Inst. Hautes Études Sci. Publ. Math.*, (81):73–205, 1995.
- [4194] Michel Talagrand. Hausdorff measure of trajectories of multiparameter fractional Brownian motion. *Ann. Probab.*, 23(2):767–775, 1995.
- [4195] Michel Talagrand. New concentration inequalities in product spaces. *Invent. Math.*, 126(3):505–563, 1996.
- [4196] M. Talagrand. Transportation cost for Gaussian and other product measures. *Geom. Funct. Anal.*, 6(3):587–600, 1996.
- [4197] Michel Talagrand. The Sherrington-Kirkpatrick model: a challenge for mathematicians. *Probab. Theory Related Fields*, 110(2):109–176, 1998.
- [4198] Giorgio Talenti. Sopra una classe di equazioni ellittiche a coefficienti misurabili. *Ann. Mat. Pura Appl. (4)*, 69:285–304, 1965.
- [4199] P. I. Tamborenea and S. Das Sarma. Surface-diffusion-driven kinetic growth on one-dimensional substrates. *Phys. Rev. E*, 48:2575–2594, Oct 1993.
- [4200] Wenpin Tang and Li-Cheng Tsai. Optimal surviving strategy for drifted Brownian motions with absorption. *Ann. Probab.*, 46(3):1597–1650, 2018.
- [4201] Terence Tao. *Nonlinear dispersive equations*, volume 106 of *CBMS Regional Conference Series in Mathematics*. Published for the Conference Board of the Mathematical Sciences, Washington, DC; by the American Mathematical Society, Providence, RI, 2006. Local and global analysis.
- [4202] L. N. Tao. The analyticity of solutions of the heat equation with nonlinear boundary conditions. *Quart. J. Mech. Appl. Math.*, 38(3):447–459, 1985.
- [4203] L. Tartar. Interpolation non linéaire et régularité. *J. Functional Analysis*, 9:469–489, 1972.
- [4204] Michael Taylor, Marius Mitrea, and András Vasy. Lipschitz domains, domains with corners, and the Hodge Laplacian. *Comm. Partial Differential Equations*, 30(10-12):1445–1462, 2005.
- [4205] S. J. Taylor. On the connexion between Hausdorff measures and generalized capacity. *Proc. Cambridge Philos. Soc.*, 57:524–531, 1961.
- [4206] Michael E. Taylor. *Partial differential equations. II*, volume 116 of *Applied Mathematical Sciences*. Springer-Verlag, New York, 1996. Qualitative studies of linear equations.
- [4207] Josef Teichmann. Another approach to some rough and stochastic partial differential equations. *Stoch. Dyn.*, 11(2-3):535–550, 2011.

- [4208] N. M. Temme. Error functions, Dawson’s and Fresnel integrals. In *NIST handbook of mathematical functions*, pages 159–171. U.S. Dept. Commerce, Washington, DC, 2010.
- [4209] N. M. Temme. Exponential, logarithmic, sine, and cosine integrals. In *NIST handbook of mathematical functions*, pages 149–157. U.S. Dept. Commerce, Washington, DC, 2010.
- [4210] N. M. Temme. Numerical methods. In *NIST handbook of mathematical functions*, pages 71–101. U.S. Dept. Commerce, Washington, DC, 2010.
- [4211] N. M. Temme. Parabolic cylinder functions. In *NIST handbook of mathematical functions*, pages 303–319. U.S. Dept. Commerce, Washington, DC, 2010.
- [4212] Blake Temple and Craig A. Tracy. From Newton to Einstein. *Amer. Math. Monthly*, 99(6):507–521, 1992.
- [4213] Gérald Tenenbaum. *Introduction to analytic and probabilistic number theory*, volume 163 of *Graduate Studies in Mathematics*. American Mathematical Society, Providence, RI, third edition, 2015. Translated from the 2008 French edition by Patrick D. F. Ion.
- [4214] G. Tessitore and J. Zabczyk. Trotter’s formula for transition semigroups. *Semigroup Forum*, 63(2):114–126, 2001.
- [4215] Gianmario Tessitore and Jerzy Zabczyk. Pricing options for Markovian models. In *Stochastic processes and related topics (Siegmundsborg, 2000)*, volume 12 of *Stochastics Monogr.*, pages 249–268. Taylor & Francis, London, 2002.
- [4216] Gianmario Tessitore and Jerzy Zabczyk. Wong-Zakai approximations of stochastic evolution equations. *J. Evol. Equ.*, 6(4):621–655, 2006.
- [4217] Gianmario Tessitore and Jerzy Zabczyk. Pricing options for multinomial models. *Bull. Polish Acad. Sci. Math.*, 44(3):363–380, 1996.
- [4218] Gianmario Tessitore and Jerzy Zabczyk. Invariant measures for stochastic heat equations. *Probab. Math. Statist.*, 18(2, Acta Univ. Wratislav. No. 2111):271–287, 1998.
- [4219] Gianmario Tessitore and Jerzy Zabczyk. Strict positivity for stochastic heat equations. *Stochastic Process. Appl.*, 77(1):83–98, 1998.
- [4220] I. J. Thompson. Coulomb functions. In *NIST handbook of mathematical functions*, pages 741–756. U.S. Dept. Commerce, Washington, DC, 2010.
- [4221] Colin J. Thompson. *Mathematical statistical mechanics*. Princeton University Press, Princeton, N.J., 1979. Reprinting of the 1972 original.
- [4222] David Thouless. Anderson localization in the seventies and beyond. *Int. J. Mod. Phys. B*, 24(12n13):1507–1525, 2010.
- [4223] Samy Tindel and Khalil Chouk. Skorohod and Stratonovich integration in the plane. *Electron. J. Probab.*, 20:no. 39, 39, 2015.
- [4224] Samy Tindel, Yanghui Liu, and Guang Lin. On the anticipative nonlinear filtering problem and its stability. *Appl. Math. Optim.*, 84(1):399–423, 2021.
- [4225] Samy Tindel and Iván Torrecilla. Some differential systems driven by a fBm with Hurst parameter greater than 1/4. In *Stochastic analysis and related topics*, volume 22 of *Springer Proc. Math. Stat.*, pages 169–202. Springer, Heidelberg, 2012.
- [4226] S. Tindel, C. A. Tudor, and F. Viens. Stochastic evolution equations with fractional Brownian motion. *Probab. Theory Related Fields*, 127(2):186–204, 2003.

- [4227] S. Tindel, C. A. Tudor, and F. Viens. Sharp Gaussian regularity on the circle, and applications to the fractional stochastic heat equation. *J. Funct. Anal.*, 217(2):280–313, 2004.
- [4228] Samy Tindel and Jérémie Unterberger. The rough path associated to the multidimensional analytic fBm with any Hurst parameter. *Collect. Math.*, 62(2):197–223, 2011.
- [4229] Samy Tindel and Frederi Viens. Almost sure exponential behaviour for a parabolic SPDE on a manifold. *Stochastic Process. Appl.*, 100:53–74, 2002.
- [4230] S. Tindel and F. Viens. Regularity conditions for parabolic SPDEs on Lie groups. In *Seminar on Stochastic Analysis, Random Fields and Applications, III (Ascona, 1999)*, volume 52 of *Progr. Probab.*, pages 269–291. Birkhäuser, Basel, 2002.
- [4231] Samy Tindel and Frederi Viens. Convergence of a branching and interacting particle system to the solution of a nonlinear stochastic PDE. *Random Oper. Stochastic Equations*, 12(2):129–144, 2004.
- [4232] Samy Tindel and Frederi Viens. Relating the almost-sure Lyapunov exponent of a parabolic SPDE and its coefficients’ spatial regularity. *Potential Anal.*, 22(2):101–125, 2005.
- [4233] Samy Tindel and Frederi Viens. On space-time regularity for the stochastic heat equation on Lie groups. *J. Funct. Anal.*, 169(2):559–603, 1999.
- [4234] S. Tindel. SPDEs with pseudodifferential generators: the existence of a density. *Appl. Math. (Warsaw)*, 27(3):287–308, 2000.
- [4235] Samy Tindel. On forward stochastic integrals over the loop space. *Stochastic Anal. Appl.*, 20(1):221–241, 2002.
- [4236] Samy Tindel. Quenched large deviation principle for the overlap of a  $p$ -spins system. *J. Statist. Phys.*, 110(1-2):51–72, 2003.
- [4237] Samy Tindel. On the stochastic calculus method for spins systems. *Ann. Probab.*, 33(2):561–581, 2005.
- [4238] Samy Tindel. On fractional diffusion processes. In *Journées Élie Cartan 2006, 2007 et 2008*, volume 19 of *Inst. Élie Cartan*, pages 219–232. Univ. Nancy, Nancy, 2009.
- [4239] Samy Tindel. Diffusion approximation for elliptic stochastic differential equations. In *Stochastic analysis and related topics, V (Silivri, 1994)*, volume 38 of *Progr. Probab.*, pages 255–268. Birkhäuser Boston, Boston, MA, 1996.
- [4240] Samy Tindel. Stochastic parabolic equations with anticipative initial condition. *Stochastics Stochastics Rep.*, 62(1-2):1–20, 1997.
- [4241] Samy Tindel. Quasilinear stochastic elliptic equations with reflection: the existence of a density. *Bernoulli*, 4(4):445–459, 1998.
- [4242] E. C. Titchmarsh. *The theory of functions*. Oxford University Press, Oxford, 1958. Reprint of the second (1939) edition.
- [4243] E. C. Titchmarsh. *The theory of the Riemann zeta-function*. The Clarendon Press, Oxford University Press, New York, second edition, 1986. Edited and with a preface by D. R. Heath-Brown.
- [4244] Tomasz Tkocz, Marek Smaczyński, Marek Kuś, Ofer Zeitouni, and Karol Życzkowski. Tensor products of random unitary matrices. *Random Matrices Theory Appl.*, 1(4):1250009, 26, 2012.
- [4245] Fabio Lucio Toninelli. A replica-coupling approach to disordered pinning models. *Comm. Math. Phys.*, 280(2):389–401, 2008.

- [4246] Craig A. Tracy, Larry Grove, and M. F. Newman. Modular properties of the hard hexagon model. *J. Statist. Phys.*, 48(3-4):477–502, 1987.
- [4247] Craig A. Tracy and Harold Widom. The distribution of the largest eigenvalue in the Gaussian ensembles:  $\beta = 1, 2, 4$ . In *Calogero-Moser-Sutherland models (Montréal, QC, 1997)*, CRM Ser. Math. Phys., pages 461–472. Springer, New York, 2000.
- [4248] Craig A. Tracy and Harold Widom. Universality of the distribution functions of random matrix theory. In *Integrable systems: from classical to quantum (Montréal, QC, 1999)*, volume 26 of *CRM Proc. Lecture Notes*, pages 251–264. Amer. Math. Soc., Providence, RI, 2000.
- [4249] Craig A. Tracy and Harold Widom. On the distributions of the lengths of the longest monotone subsequences in random words. *Probab. Theory Related Fields*, 119(3):350–380, 2001.
- [4250] Craig A. Tracy and Harold Widom. Airy kernel and Painlevé II. In *Isomonodromic deformations and applications in physics (Montréal, QC, 2000)*, volume 31 of *CRM Proc. Lecture Notes*, pages 85–96. Amer. Math. Soc., Providence, RI, 2002.
- [4251] Craig A. Tracy and Harold Widom. Distribution functions for largest eigenvalues and their applications. In *Proceedings of the International Congress of Mathematicians, Vol. I (Beijing, 2002)*, pages 587–596. Higher Ed. Press, Beijing, 2002.
- [4252] Craig A. Tracy and Harold Widom. On a distribution function arising in computational biology. In *MathPhys odyssey, 2001*, volume 23 of *Prog. Math. Phys.*, pages 467–474. Birkhäuser Boston, Boston, MA, 2002.
- [4253] Craig A. Tracy and Harold Widom. On the limit of some Toeplitz-like determinants. *SIAM J. Matrix Anal. Appl.*, 23(4):1194–1196, 2002.
- [4254] Craig A. Tracy and Harold Widom. A system of differential equations for the Airy process. *Electron. Comm. Probab.*, 8:93–98, 2003.
- [4255] Craig A. Tracy and Harold Widom. Differential equations for Dyson processes. *Comm. Math. Phys.*, 252(1-3):7–41, 2004.
- [4256] Craig A. Tracy and Harold Widom. A limit theorem for shifted Schur measures. *Duke Math. J.*, 123(1):171–208, 2004.
- [4257] Craig A. Tracy and Harold Widom. Matrix kernels for the Gaussian orthogonal and symplectic ensembles. *Ann. Inst. Fourier (Grenoble)*, 55(6):2197–2207, 2005.
- [4258] Craig A. Tracy and Harold Widom. The Pearcey process. *Comm. Math. Phys.*, 263(2):381–400, 2006.
- [4259] Craig A. Tracy and Harold Widom. Nonintersecting Brownian excursions. *Ann. Appl. Probab.*, 17(3):953–979, 2007.
- [4260] Craig A. Tracy and Harold Widom. The dynamics of the one-dimensional delta-function Bose gas. *J. Phys. A*, 41(48):485204, 6, 2008.
- [4261] Craig A. Tracy and Harold Widom. A Fredholm determinant representation in ASEP. *J. Stat. Phys.*, 132(2):291–300, 2008.
- [4262] Craig A. Tracy and Harold Widom. Integral formulas for the asymmetric simple exclusion process. *Comm. Math. Phys.*, 279(3):815–844, 2008.
- [4263] Craig A. Tracy and Harold Widom. Asymptotics in ASEP with step initial condition. *Comm. Math. Phys.*, 290(1):129–154, 2009.

- [4264] Craig A. Tracy and Harold Widom. On ASEP with step Bernoulli initial condition. *J. Stat. Phys.*, 137(5-6):825–838, 2009.
- [4265] Craig A. Tracy and Harold Widom. On the distribution of a second-class particle in the asymmetric simple exclusion process. *J. Phys. A*, 42(42):425002, 6, 2009.
- [4266] Craig A. Tracy and Harold Widom. Total current fluctuations in the asymmetric simple exclusion process. *J. Math. Phys.*, 50(9):095204, 4, 2009.
- [4267] Craig A. Tracy and Harold Widom. Formulas for joint probabilities for the asymmetric simple exclusion process. *J. Math. Phys.*, 51(6):063302, 10, 2010.
- [4268] Craig A. Tracy and Harold Widom. Formulas for ASEP with two-sided Bernoulli initial condition. *J. Stat. Phys.*, 140(4):619–634, 2010.
- [4269] Craig A. Tracy and Harold Widom. Erratum to: Integral formulas for the asymmetric simple exclusion process [mr2386729]. *Comm. Math. Phys.*, 304(3):875–878, 2011.
- [4270] Craig A. Tracy and Harold Widom. Formulas and asymptotics for the asymmetric simple exclusion process. *Math. Phys. Anal. Geom.*, 14(3):211–235, 2011.
- [4271] Craig A. Tracy and Harold Widom. On asymmetric simple exclusion process with periodic step Bernoulli initial condition. *J. Math. Phys.*, 52(2):023303, 6, 2011.
- [4272] Craig A. Tracy and Harold Widom. Painlevé functions in statistical physics. *Publ. Res. Inst. Math. Sci.*, 47(1):361–374, 2011.
- [4273] Craig A. Tracy and Harold Widom. The asymmetric simple exclusion process with an open boundary. *J. Math. Phys.*, 54(10):103301, 16, 2013.
- [4274] Craig A. Tracy and Harold Widom. The Bose gas and asymmetric simple exclusion process on the half-line. *J. Stat. Phys.*, 150(1):1–12, 2013.
- [4275] Craig A. Tracy and Harold Widom. On the asymmetric simple exclusion process with multiple species. *J. Stat. Phys.*, 150(3):457–470, 2013.
- [4276] Craig A. Tracy and Harold Widom. On the diagonal susceptibility of the two-dimensional Ising model. *J. Math. Phys.*, 54(12):123302, 9, 2013.
- [4277] Craig A. Tracy and Harold Widom. On the singularities in the susceptibility expansion for the two-dimensional Ising model. *J. Stat. Phys.*, 156(6):1125–1135, 2014.
- [4278] Craig A. Tracy and Harold Widom. On the ground state energy of the  $\delta$ -function Bose gas. *J. Phys. A*, 49(29):294001, 17, 2016.
- [4279] Craig A. Tracy and Harold Widom. On the ground state energy of the delta-function Fermi gas. *J. Math. Phys.*, 57(10):103301, 14, 2016.
- [4280] Craig A. Tracy and Harold Widom. Blocks in the asymmetric simple exclusion process. *J. Math. Phys.*, 58(12):123302, 11, 2017.
- [4281] Craig A. Tracy and Harold Widom. Natural boundary for a sum involving Toeplitz determinants. In *Large truncated Toeplitz matrices, Toeplitz operators, and related topics*, volume 259 of *Oper. Theory Adv. Appl.*, pages 703–718. Birkhäuser/Springer, Cham, 2017.
- [4282] Craig A. Tracy and Harold Widom. Blocks and gaps in the asymmetric simple exclusion process: asymptotics. *J. Math. Phys.*, 59(9):091401, 13, 2018.
- [4283] Craig A. Tracy and Harold Widom. On the ground state energy of the delta-function Fermi gas II: further asymptotics. In *Geometric methods in physics XXXV*, Trends Math., pages 201–212. Birkhäuser/Springer, Cham, 2018.

- [4284] Craig A. Tracy and Harold Widom. Introduction to random matrices. In *Geometric and quantum aspects of integrable systems (Scheveningen, 1992)*, volume 424 of *Lecture Notes in Phys.*, pages 103–130. Springer, Berlin, 1993.
- [4285] Craig A. Tracy and Harold Widom. Level-spacing distributions and the Airy kernel. *Phys. Lett. B*, 305(1-2):115–118, 1993.
- [4286] Craig A. Tracy and Harold Widom. Fredholm determinants, differential equations and matrix models. *Comm. Math. Phys.*, 163(1):33–72, 1994.
- [4287] Craig A. Tracy and Harold Widom. Level spacing distributions and the Bessel kernel. *Comm. Math. Phys.*, 161(2):289–309, 1994.
- [4288] Craig A. Tracy and Harold Widom. Level-spacing distributions and the Airy kernel. *Comm. Math. Phys.*, 159(1):151–174, 1994.
- [4289] C. A. Tracy and H. Widom. Systems of partial differential equations for a class of operator determinants. In *Partial differential operators and mathematical physics (Holzhau, 1994)*, volume 78 of *Oper. Theory Adv. Appl.*, pages 381–388. Birkhäuser, Basel, 1995.
- [4290] Craig A. Tracy and Harold Widom. Fredholm determinants and the mKdV/sinh-Gordon hierarchies. *Comm. Math. Phys.*, 179(1):1–9, 1996.
- [4291] Craig A. Tracy and Harold Widom. On orthogonal and symplectic matrix ensembles. *Comm. Math. Phys.*, 177(3):727–754, 1996.
- [4292] C. A. Tracy and H. Widom. Proofs of two conjectures related to the thermodynamic Bethe ansatz. *Comm. Math. Phys.*, 179(3):667–680, 1996.
- [4293] Craig A. Tracy and Harold Widom. On exact solutions to the cylindrical Poisson-Boltzmann equation with applications to polyelectrolytes. *Phys. A*, 244(1-4):402–413, 1997.
- [4294] Craig A. Tracy and Harold Widom. The thermodynamic Bethe ansatz and a connection with Painlevé equations. In *Proceedings of the Conference on Exactly Soluble Models in Statistical Mechanics: Historical Perspectives and Current Status (Boston, MA, 1996)*, volume 11, pages 69–74, 1997.
- [4295] Craig A. Tracy and Harold Widom. Asymptotics of a class of solutions to the cylindrical Toda equations. *Comm. Math. Phys.*, 190(3):697–721, 1998.
- [4296] Craig A. Tracy and Harold Widom. Correlation functions, cluster functions, and spacing distributions for random matrices. *J. Statist. Phys.*, 92(5-6):809–835, 1998.
- [4297] Craig A. Tracy and Harold Widom. Asymptotics of a class of Fredholm determinants. In *Spectral problems in geometry and arithmetic (Iowa City, IA, 1997)*, volume 237 of *Contemp. Math.*, pages 167–174. Amer. Math. Soc., Providence, RI, 1999.
- [4298] Craig A. Tracy and Harold Widom. Random unitary matrices, permutations and Painlevé. *Comm. Math. Phys.*, 207(3):665–685, 1999.
- [4299] Craig A. Tracy and Harold Widom. Universality of the distribution functions of random matrix theory. In *Statistical physics on the eve of the 21st century*, volume 14 of *Ser. Adv. Statist. Mech.*, pages 230–239. World Sci. Publ., River Edge, NJ, 1999.
- [4300] Craig A. Tracy. Complete integrability in statistical mechanics and the Yang-Baxter equations. *Phys. D*, 14(2):253–264, 1985.
- [4301] Craig A. Tracy. Embedded elliptic curves and the Yang-Baxter equations. *Phys. D*, 16(2):203–220, 1985.
- [4302] Craig A. Tracy.  $Z_n$  Baxter model: critical behavior. *J. Statist. Phys.*, 44(1-2):183–191, 1986.



- [4303] Craig A. Tracy. The emerging role of number theory in exactly solvable models in lattice statistical mechanics. *Phys. D*, 25(1-3):1–19, 1987.
- [4304] Craig A. Tracy. Universality classes of some aperiodic Ising models. *J. Phys. A*, 21(11):L603–L605, 1988.
- [4305] Craig A. Tracy. Universality class of a Fibonacci Ising model. *J. Statist. Phys.*, 51(3-4):481–490, 1988.
- [4306] Craig A. Tracy. Introduction to exactly solvable models in statistical mechanics. In *Theta functions—Bowdoin 1987, Part 1 (Brunswick, ME, 1987)*, volume 49 of *Proc. Sympos. Pure Math.*, pages 355–375. Amer. Math. Soc., Providence, RI, 1989.
- [4307] Craig A. Tracy. Monodromy preserving deformation theory of the Klein-Gordon equation in the hyperbolic plane. *Phys. D*, 34(3):347–365, 1989.
- [4308] Craig A. Tracy. Monodromy preserving deformation of linear ordinary and partial differential equations. In *Solitons in physics, mathematics, and nonlinear optics (Minneapolis, MN, 1988–89)*, volume 25 of *IMA Vol. Math. Appl.*, pages 165–174. Springer, New York, 1990.
- [4309] Craig A. Tracy. Asymptotics of a  $\tau$ -function arising in the two-dimensional Ising model. *Comm. Math. Phys.*, 142(2):297–311, 1991.
- [4310] François Trèves. *Analytic partial differential equations*, volume 359 of *Grundlehren der mathematischen Wissenschaften [Fundamental Principles of Mathematical Sciences]*. Springer, Cham, [2022] ©2022.
- [4311] François Trèves. *Basic linear partial differential equations*. Pure and Applied Mathematics, Vol. 62. Academic Press [Harcourt Brace Jovanovich, Publishers], New York-London, 1975.
- [4312] Roger Tribe. A travelling wave solution to the Kolmogorov equation with noise. *Stochastics Stochastics Rep.*, 56(3-4):317–340, 1996.
- [4313] F. G. Tricomi. *Integral equations*. Dover Publications, Inc., New York, 1985. Reprint of the 1957 original.
- [4314] Hans Triebel. Function spaces in Lipschitz domains and on Lipschitz manifolds. Characteristic functions as pointwise multipliers. *Rev. Mat. Complut.*, 15(2):475–524, 2002.
- [4315] Hans Triebel. *Theory of function spaces. III*, volume 100 of *Monographs in Mathematics*. Birkhäuser Verlag, Basel, 2006.
- [4316] Hans Triebel. *Theory of function spaces*, volume 78 of *Monographs in Mathematics*. Birkhäuser Verlag, Basel, 1983.
- [4317] Hans Triebel. *Theory of function spaces. II*, volume 84 of *Monographs in Mathematics*. Birkhäuser Verlag, Basel, 1992.
- [4318] Thomas Trogdon and Sheehan Olver. *Riemann-Hilbert problems, their numerical solution, and the computation of nonlinear special functions*. Society for Industrial and Applied Mathematics (SIAM), Philadelphia, PA, 2016.
- [4319] Li-Cheng Tsai. Viscous shock propagation with boundary effect. *Bull. Inst. Math. Acad. Sin. (N.S.)*, 6(1):1–25, 2011.
- [4320] Li-Cheng Tsai. Infinite dimensional stochastic differential equations by Dyson’s model. In *Stochastic analysis on large scale interacting systems*, RIMS Kôkyûroku Bessatsu, B59, pages 175–201. Res. Inst. Math. Sci. (RIMS), Kyoto, 2016.
- [4321] Li-Cheng Tsai. Infinite dimensional stochastic differential equations for Dyson’s model. *Probab. Theory Related Fields*, 166(3-4):801–850, 2016.

- [4322] Li-Cheng Tsai. Stationary distributions of the Atlas model. *Electron. Commun. Probab.*, 23:Paper No. 10, 10, 2018.
- [4323] Li-Cheng Tsai. Large deviations of the KPZ equation via the stochastic Airy operator. In *Stochastic analysis, random fields and integrable probability—Fukuoka 2019*, volume 87 of *Adv. Stud. Pure Math.*, pages 415–429. Math. Soc. Japan, Tokyo, [2021] ©2021.
- [4324] Li-Cheng Tsai. Exact lower-tail large deviations of the KPZ equation. *Duke Math. J.*, 171(9):1879–1922, 2022.
- [4325] M. Tsuji. *Potential theory in modern function theory*. Chelsea Publishing Co., New York, 1975. Reprinting of the 1959 original.
- [4326] Masayoshi Tsutsumi. Existence and nonexistence of global solutions for nonlinear parabolic equations. *Publ. Res. Inst. Math. Sci.*, 8:211–229, 1972.
- [4327] Nguyen Huy Tuan, Erkan Nane, Donal O’Regan, and Nguyen Duc Phuong. Approximation of mild solutions of a semilinear fractional differential equation with random noise. *Proc. Amer. Math. Soc.*, 148(8):3339–3357, 2020.
- [4328] Nguyen Huy Tuan and Erkan Nane. Inverse source problem for time-fractional diffusion with discrete random noise. *Statist. Probab. Lett.*, 120:126–134, 2017.
- [4329] Ciprian A. Tudor and Yimin Xiao. Sample paths of the solution to the fractional-colored stochastic heat equation. *Stoch. Dyn.*, 17(1):1750004, 20, 2017.
- [4330] Constantin Tudor. Fractional bilinear stochastic equations with the drift in the first fractional chaos. *Stochastic Anal. Appl.*, 22(5):1209–1233, 2004.
- [4331] A. M. Tulino and S. Verdú. Asymptotic singular value distributions in information theory. In *The Oxford handbook of random matrix theory*, pages 851–872. Oxford Univ. Press, Oxford, 2011.
- [4332] Krystyna Twardowska and Jerzy Zabczyk. A note on stochastic Burgers’ system of equations. *Stochastic Anal. Appl.*, 22(6):1641–1670, 2004.
- [4333] Krystyna Twardowska and Jerzy Zabczyk. Qualitative properties of solutions to stochastic Burgers’ system of equations. In *Stochastic partial differential equations and applications—VII*, volume 245 of *Lect. Notes Pure Appl. Math.*, pages 311–322. Chapman & Hall/CRC, Boca Raton, FL, 2006.
- [4334] D. E. Tzanetis. Asymptotic behaviour and blow-up of some unbounded solutions for a semi-linear heat equation. *Proc. Edinburgh Math. Soc. (2)*, 39(1):81–96, 1996.
- [4335] Hou-sin U. A new class of parabolic systems of equations. *Soviet Math. Dokl.*, 1:945–948, 1960.
- [4336] Vladimir V. Uchaikin and Vladimir M. Zolotarev. *Chance and stability*. Modern Probability and Statistics. VSP, Utrecht, 1999. Stable distributions and their applications, With a foreword by V. Yu. Korolev and Zolotarev.
- [4337] S. R. Umarov and È. M. Saudimatov. Generalization of the Duhamel principle for fractional-order differential equations. *Dokl. Akad. Nauk*, 412(4):463–465, 2007.
- [4338] Sabir Umarov and Erkin Saydamatov. A fractional analog of the Duhamel principle. *Fract. Calc. Appl. Anal.*, 9(1):57–70, 2006.
- [4339] Sabir Umarov. On fractional Duhamel’s principle and its applications. *J. Differential Equations*, 252(10):5217–5234, 2012.

- [4340] A. Süleyman Üstünel and Moshe Zakai. *Transformation of measure on Wiener space*. Springer Monographs in Mathematics. Springer-Verlag, Berlin, 2000.
- [4341] Ali Suleyman Üstünel. Transportation cost inequalities for diffusions under uniform distance. In *Stochastic analysis and related topics*, volume 22 of *Springer Proc. Math. Stat.*, pages 203–214. Springer, Heidelberg, 2012.
- [4342] Ali Süleyman Üstünel. *An introduction to analysis on Wiener space*, volume 1610 of *Lecture Notes in Mathematics*. Springer-Verlag, Berlin, 1995.
- [4343] H. G. Vaidya and C. A. Tracy. Crossover scaling function for the one-dimensional XY model at zero temperature. *Phys. Lett. A*, 68(3-4):378–380, 1978.
- [4344] Hemant G. Vaidya and Craig A. Tracy. Transverse time-dependent spin correlation functions for the one-dimensional XY model at zero temperature. *Phys. A*, 92(1-2):1–41, 1978.
- [4345] V. S. Varadarajan and Robert C. Dalang. Srishti Dhar Chatterji (1935–2017): in memoriam. *Expo. Math.*, 36(3-4):231–252, 2018.
- [4346] S. R. S. Varadhan. Large deviations for random walks in a random environment. volume 56, pages 1222–1245. 2003. Dedicated to the memory of Jürgen K. Moser.
- [4347] S. R. S. Varadhan. *Stochastic processes*, volume 16 of *Courant Lecture Notes in Mathematics*. Courant Institute of Mathematical Sciences, New York; American Mathematical Society, Providence, RI, 2007.
- [4348] S. R. S. Varadhan. Self-diffusion of a tagged particle in equilibrium for asymmetric mean zero random walk with simple exclusion. *Ann. Inst. H. Poincaré Probab. Statist.*, 31(1):273–285, 1995.
- [4349] Vincent Vargas. A local limit theorem for directed polymers in random media: the continuous and the discrete case. *Ann. Inst. H. Poincaré Probab. Statist.*, 42(5):521–534, 2006.
- [4350] J. L. Vazquez. The free boundary problem for the heat equation with fixed gradient condition. In *Free boundary problems, theory and applications (Zakopane, 1995)*, volume 363 of *Pitman Res. Notes Math. Ser.*, pages 277–302. Longman, Harlow, 1996.
- [4351] Juan Luis Vazquez. Domain of existence and blowup for the exponential reaction-diffusion equation. *Indiana Univ. Math. J.*, 48(2):677–709, 1999.
- [4352] J. J. L. Velázquez, V. A. Galaktionov, and M. A. Herrero. The space structure near a blow-up point for semilinear heat equations: a formal approach. *Zh. Vychisl. Mat. i Mat. Fiz.*, 31(3):399–411, 1991.
- [4353] J. J. L. Velázquez. Classification of singularities for blowing up solutions in higher dimensions. *Trans. Amer. Math. Soc.*, 338(1):441–464, 1993.
- [4354] J. J. L. Velázquez. Estimates on the  $(n - 1)$ -dimensional Hausdorff measure of the blow-up set for a semilinear heat equation. *Indiana Univ. Math. J.*, 42(2):445–476, 1993.
- [4355] Juan J. L. Velázquez. Cusp formation for the undercooled Stefan problem in two and three dimensions. *European J. Appl. Math.*, 8(1):1–21, 1997.
- [4356] J. J. M. Verbaarschot. Quantum chromodynamics. In *The Oxford handbook of random matrix theory*, pages 661–682. Oxford Univ. Press, Oxford, 2011.
- [4357] Gregory Verchota. Layer potentials and regularity for the Dirichlet problem for Laplace’s equation in Lipschitz domains. *J. Funct. Anal.*, 59(3):572–611, 1984.

- [4358] Graziano Vernizzi and Henri Orland. Random matrix theory and ribonucleic acid (RNA) folding. In *The Oxford handbook of random matrix theory*, pages 873–897. Oxford Univ. Press, Oxford, 2011.
- [4359] A. M. Vershik, Jean Bourgain, Harry Kesten, and Nicolai Reshetikhin. The mathematical work of the 2006 Fields medalists. *Notices Amer. Math. Soc.*, 54(3):388–404, 2007.
- [4360] A. Vershik and O. Zeitouni. Large deviations in the geometry of convex lattice polygons. *Israel J. Math.*, 109:13–27, 1999.
- [4361] Roman Vershynin. *High-dimensional probability*, volume 47 of *Cambridge Series in Statistical and Probabilistic Mathematics*. Cambridge University Press, Cambridge, 2018. An introduction with applications in data science, With a foreword by Sara van de Geer.
- [4362] Frederi G. Viens and Tao Zhang. Almost sure exponential behavior of a directed polymer in a fractional Brownian environment. *J. Funct. Anal.*, 255(10):2810–2860, 2008.
- [4363] Frederi G. Viens. Stein’s lemma, Malliavin calculus, and tail bounds, with application to polymer fluctuation exponent. *Stochastic Process. Appl.*, 119(10):3671–3698, 2009.
- [4364] Laura Vinckenbosch, Céline Lacaux, Samy Tindel, Magalie Thomassin, and Tiphaine Obara. Monte Carlo methods for light propagation in biological tissues. *Math. Biosci.*, 269:48–60, 2015.
- [4365] Michel Viot. Équations aux dérivées partielles stochastiques: formulation faible. In *Séminaire sur les Équations aux Dérivées Partielles (1974–1975), III, Exp. No. 1*, page 16. Collège de France, Paris, 1975.
- [4366] Monica Visan. The defocusing energy-critical nonlinear Schrödinger equation in higher dimensions. *Duke Math. J.*, 138(2):281–374, 2007.
- [4367] Martin Vogel and Ofer Zeitouni. Deterministic equivalence for noisy perturbations. *Proc. Amer. Math. Soc.*, 149(9):3905–3911, 2021.
- [4368] H. Volkmer. Lamé functions. In *NIST handbook of mathematical functions*, pages 683–695. U.S. Dept. Commerce, Washington, DC, 2010.
- [4369] V. A. Volkonskiui and Yu. A. Rozanov. Some limit theorems for random functions. I. *Theor. Probability Appl.*, 4:178–197, 1959.
- [4370] Martin J. Wainwright. *High-dimensional statistics*, volume 48 of *Cambridge Series in Statistical and Probabilistic Mathematics*. Cambridge University Press, Cambridge, 2019. A non-asymptotic viewpoint.
- [4371] Peter L. Walker. *Elliptic functions*. John Wiley & Sons, Ltd., Chichester, 1996. A constructive approach.
- [4372] John B. Walsh. An introduction to stochastic partial differential equations. In *École d’été de probabilités de Saint-Flour, XIV—1984*, volume 1180 of *Lecture Notes in Math.*, pages 265–439. Springer, Berlin, 1986.
- [4373] Wolfgang Walter. *Differential and integral inequalities*. Ergebnisse der Mathematik und ihrer Grenzgebiete, Band 55. Springer-Verlag, New York-Berlin, 1970. Translated from the German by Lisa Rosenblatt and Lawrence Shampine.
- [4374] Peter Walters. *An introduction to ergodic theory*, volume 79 of *Graduate Texts in Mathematics*. Springer-Verlag, New York-Berlin, 1982.
- [4375] Chen Wang, Saisai Yang, and Tusheng Zhang. Reflected Brownian motion with singular drift. *Bernoulli*, 27(2):866–898, 2021.

- [4376] Ran Wang, Jianliang Zhai, and Tusheng Zhang. A moderate deviation principle for 2-D stochastic Navier-Stokes equations. *J. Differential Equations*, 258(10):3363–3390, 2015.
- [4377] Ran Wang, Jianliang Zhai, and Tusheng Zhang. Exponential mixing for stochastic model of two-dimensional second grade fluids. *Nonlinear Anal.*, 132:196–213, 2016.
- [4378] Feng-Yu Wang and Tu-Sheng Zhang. Gradient estimates for stochastic evolution equations with non-Lipschitz coefficients. *J. Math. Anal. Appl.*, 365(1):1–11, 2010.
- [4379] Feng-Yu Wang and Tusheng Zhang. Log-Harnack inequality for mild solutions of SPDEs with multiplicative noise. *Stochastic Process. Appl.*, 124(3):1261–1274, 2014.
- [4380] Ran Wang and Tusheng Zhang. Moderate deviations for stochastic reaction-diffusion equations with multiplicative noise. *Potential Anal.*, 42(1):99–113, 2015.
- [4381] Chen Wang and Tusheng Zhang. Pathwise uniqueness and non-explosion of SDEs driven by compensated Poisson random measures. *Statist. Probab. Lett.*, 150:61–67, 2019.
- [4382] Feng-yu Wang and Tu-sheng Zhang. Talagrand inequality on free path space and application to stochastic reaction diffusion equations. *Acta Math. Appl. Sin. Engl. Ser.*, 36(2):253–261, 2020.
- [4383] Zhidong Wang. Existence and uniqueness of solutions to stochastic Volterra equations with singular kernels and non-Lipschitz coefficients. *Statist. Probab. Lett.*, 78(9):1062–1071, 2008.
- [4384] H. Wang. State classification for a class of measure-valued branching diffusions in a Brownian medium. *Probab. Theory Related Fields*, 109(1):39–55, 1997.
- [4385] H. Wang. A class of measure-valued branching diffusions in a random medium. *Stochastic Anal. Appl.*, 16(4):753–786, 1998.
- [4386] Wolfgang Wasow. *Asymptotic expansions for ordinary differential equations*. Dover Publications, Inc., New York, 1987. Reprint of the 1976 edition.
- [4387] Shinzo Watanabe. A limit theorem of branching processes and continuous state branching processes. *J. Math. Kyoto Univ.*, 8:141–167, 1968.
- [4388] Hiroshi Watanabe. Block spin approach to  $\phi_3^4$  field theory. *J. Statist. Phys.*, 54(1-2):171–190, 1989.
- [4389] G. N. Watson. *A Treatise on the Theory of Bessel Functions*. Cambridge University Press, Cambridge, England; Macmillan Company, New York, 1944.
- [4390] G. N. Watson. *A treatise on the theory of Bessel functions*. Cambridge Mathematical Library. Cambridge University Press, Cambridge, 1995. Reprint of the second (1944) edition.
- [4391] Fred B. Weissler. Single point blow-up for a semilinear initial value problem. *J. Differential Equations*, 55(2):204–224, 1984.
- [4392] C. H. Wen and T. S. Zhang. Rectangular method on stochastic Volterra equations. *Int. J. Appl. Math. Stat.*, 14(J09):12–26, 2009.
- [4393] C. H. Wen and T. S. Zhang. Improved rectangular method on stochastic Volterra equations. *J. Comput. Appl. Math.*, 235(8):2492–2501, 2011.
- [4394] M. J. Westwater. On Edwards’ model for long polymer chains. *Comm. Math. Phys.*, 72(2):131–174, 1980.
- [4395] E. T. Whittaker and G. N. Watson. *A course of modern analysis*. Cambridge Mathematical Library. Cambridge University Press, Cambridge, 1996. An introduction to the general theory of infinite processes and of analytic functions; with an account of the principal transcendental functions, Reprint of the fourth (1927) edition.

- [4396] P. Whittle. On stationary processes in the plane. *Biometrika*, 41:434–449, 1954.
- [4397] David Vernon Widder. *The Laplace Transform*. Princeton Mathematical Series, vol. 6. Princeton University Press, Princeton, N. J., 1941.
- [4398] D. V. Widder. *The heat equation*. Pure and Applied Mathematics, Vol. 67. Academic Press [Harcourt Brace Jovanovich, Publishers], New York-London, 1975.
- [4399] E. Wild. On Boltzmann’s equation in the kinetic theory of gases. *Proc. Cambridge Philos. Soc.*, 47:602–609, 1951.
- [4400] J. Michael Wilson. On the atomic decomposition for Hardy spaces. *Pacific J. Math.*, 116(1):201–207, 1985.
- [4401] Matthias Winter, Lihu Xu, Jianliang Zhai, and Tusheng Zhang. The dynamics of the stochastic shadow Gierer-Meinhardt system. *J. Differential Equations*, 260(1):84–114, 2016.
- [4402] Wolfgang Woess. *Random walks on infinite graphs and groups*, volume 138 of *Cambridge Tracts in Mathematics*. Cambridge University Press, Cambridge, 2000.
- [4403] Natalie Wolchover. At the far ends of a new universal law. *The Best Writing on Mathematics 2015*, 15:99, 2016.
- [4404] G. Wolf. Mathieu functions and Hill’s equation. In *NIST handbook of mathematical functions*, pages 651–681. U.S. Dept. Commerce, Washington, DC, 2010.
- [4405] L. von Wolfersdorf. On identification of memory kernels in linear theory of heat conduction. *Math. Methods Appl. Sci.*, 17(12):919–932, 1994.
- [4406] R. Wong and Yu-Qiu Zhao. Exponential asymptotics of the Mittag-Leffler function. *Constr. Approx.*, 18(3):355–385, 2002.
- [4407] R. Wong. *Asymptotic approximations of integrals*, volume 34 of *Classics in Applied Mathematics*. Society for Industrial and Applied Mathematics (SIAM), Philadelphia, PA, 2001. Corrected reprint of the 1989 original.
- [4408] Van E. Wood. Table errata: it Tables of integral transforms, Vol. I, II (McGraw-Hill, New York, 1954) by A. Erdélyi, W. Magnus, F. Oberhettinger and F. G. Tricomi. *Math. Comp.*, 23(106):468, 1969.
- [4409] E. Maitland Wright. On the Coefficients of Power Series Having Exponential Singularities. *J. London Math. Soc.*, 8(1):71–79, 1933.
- [4410] E. Maitland Wright. The Asymptotic Expansion of the Generalized Bessel Function. *Proc. London Math. Soc. (2)*, 38:257–270, 1935.
- [4411] E. M. Wright. The asymptotic expansion of integral functions defined by Taylor series. *Philos. Trans. Roy. Soc. London Ser. A*, 238:423–451, 1940.
- [4412] E. M. Wright. The generalized Bessel function of order greater than one. *Quart. J. Math. Oxford Ser.*, 11:36–48, 1940.
- [4413] Wei Wu and Ofer Zeitouni. Subsequential tightness of the maximum of two dimensional Ginzburg-Landau fields. *Electron. Commun. Probab.*, 24:Paper No. 19, 12, 2019.
- [4414] Liming Wu and Zhengliang Zhang. Talagrand’s  $T_2$ -transportation inequality and log-Sobolev inequality for dissipative SPDEs and applications to reaction-diffusion equations. *Chinese Ann. Math. Ser. B*, 27(3):243–262, 2006.
- [4415] Mario V. Wüthrich. Superdiffusive behavior of two-dimensional Brownian motion in a Poissonian potential. *Ann. Probab.*, 26(3):1000–1015, 1998.

- [4416] Walter Wyss. The fractional diffusion equation. *J. Math. Phys.*, 27(11):2782–2785, 1986.
- [4417] Kai-Nan Xiang and Tu-Sheng Zhang. Small time asymptotics for Fleming-Viot processes. *Infin. Dimens. Anal. Quantum Probab. Relat. Top.*, 8(4):605–630, 2005.
- [4418] Yimin Xiao. Strong local nondeterminism and sample path properties of Gaussian random fields. In *Asymptotic theory in probability and statistics with applications*, volume 2 of *Adv. Lect. Math. (ALM)*, pages 136–176. Int. Press, Somerville, MA, 2008.
- [4419] Yimin Xiao. Sample path properties of anisotropic Gaussian random fields. In *A minicourse on stochastic partial differential equations*, volume 1962 of *Lecture Notes in Math.*, pages 145–212. Springer, Berlin, 2009.
- [4420] Yimin Xiao. Hölder conditions for the local times and the Hausdorff measure of the level sets of Gaussian random fields. *Probab. Theory Related Fields*, 109(1):129–157, 1997.
- [4421] Zhouping Xin. Blowup of smooth solutions to the compressible Navier-Stokes equation with compact density. *Comm. Pure Appl. Math.*, 51(3):229–240, 1998.
- [4422] Jie Xiong. A stochastic log-Laplace equation. *Ann. Probab.*, 32(3B):2362–2388, 2004.
- [4423] Jie Xiong. Super-Brownian motion as the unique strong solution to an SPDE. *Ann. Probab.*, 41(2):1030–1054, 2013.
- [4424] Jie Xiong. *Three classes of nonlinear stochastic partial differential equations*. World Scientific Publishing Co. Pte. Ltd., Hackensack, NJ, 2013.
- [4425] Lihu Xu, Wen Yue, and Tusheng Zhang. Smooth densities of the laws of perturbed diffusion processes. *Statist. Probab. Lett.*, 119:55–62, 2016.
- [4426] Tiange Xu and Tusheng Zhang. Large deviation principles for 2-D stochastic Navier-Stokes equations driven by Lévy processes. *J. Funct. Anal.*, 257(5):1519–1545, 2009.
- [4427] Tiange Xu and Tusheng Zhang. On the small time asymptotics of the two-dimensional stochastic Navier-Stokes equations. *Ann. Inst. Henri Poincaré Probab. Stat.*, 45(4):1002–1019, 2009.
- [4428] Tiange Xu and Tusheng Zhang. White noise driven SPDEs with reflection: existence, uniqueness and large deviation principles. *Stochastic Process. Appl.*, 119(10):3453–3470, 2009.
- [4429] Tiange Xu and Tusheng Zhang. Large deviation principles for isotropic stochastic flow of homeomorphisms on  $S^d$ . *Stoch. Dyn.*, 10(4):465–495, 2010.
- [4430] Lin Xu. *Diffusive scaling limit for mean zero asymmetric simple exclusion processes*. ProQuest LLC, Ann Arbor, MI, 1993. Thesis (Ph.D.)—New York University.
- [4431] Oren Yakir and Ofer Zeitouni. The minimum modulus of Gaussian trigonometric polynomials. *Israel J. Math.*, 245(2):543–566, 2021.
- [4432] Toshio Yamada and Shinzo Watanabe. On the uniqueness of solutions of stochastic differential equations. *J. Math. Kyoto Univ.*, 11:155–167, 1971.
- [4433] Hong Yan, David Kessler, and L. M. Sander. Roughening phase transition in surface growth. *Phys. Rev. Lett.*, 64:926–929, Feb 1990.
- [4434] Saisai Yang, Chen Wang, and Tusheng Zhang. Elliptic equations associated with Brownian motion with singular drift. *Commun. Math. Stat.*, 10(1):101–122, 2022.
- [4435] C. N. Yang and C. P. Yang. One-dimensional chain of anisotropic spin-spin interactions. *Phys. Lett.*, 20:9–10, 1966.

- [4436] Xue Yang, Jianliang Zhai, and Tusheng Zhang. Large deviations for SPDEs of jump type. *Stoch. Dyn.*, 15(4):1550026, 30, 2015.
- [4437] Xue Yang, Qi Zhang, and Tusheng Zhang. Reflected backward stochastic partial differential equations in a convex domain. *Stochastic Process. Appl.*, 130(10):6038–6063, 2020.
- [4438] Xue Yang and Tusheng Zhang. Estimates of heat kernels with Neumann boundary conditions. *Potential Anal.*, 38(2):549–572, 2013.
- [4439] Juan Yang and Tusheng Zhang. Existence and uniqueness of invariant measures for SPDEs with two reflecting walls. *J. Theoret. Probab.*, 27(3):863–877, 2014.
- [4440] Xue Yang and Tusheng Zhang. Mixed boundary value problems of semilinear elliptic PDEs and BSDEs with singular coefficients. *Stochastic Process. Appl.*, 124(7):2442–2478, 2014.
- [4441] Saisai Yang and Tusheng Zhang. Backward stochastic differential equations and Dirichlet problems of semilinear elliptic operators with singular coefficients. *Potential Anal.*, 49(2):225–245, 2018.
- [4442] Saisai Yang and Tusheng Zhang. Dirichlet boundary value problems for elliptic operators with measure data. *J. Differential Equations*, 303:42–85, 2021.
- [4443] Horng-Tzer Yau.  $(\log t)^{2/3}$  law of the two dimensional asymmetric simple exclusion process. *Ann. of Math. (2)*, 159(1):377–405, 2004.
- [4444] A. Yezzi, D. Nain, G. Unal, O. Zeitouni, and A. Tannenbaum. On a stochastic model of geometric snakes. In *Handbook of mathematical models in computer vision*, pages 161–174. Springer, New York, 2006.
- [4445] Yulian Yi, Yaozhong Hu, and Jingjun Zhao. Positivity preserving logarithmic Euler-Maruyama type scheme for stochastic differential equations. *Commun. Nonlinear Sci. Numer. Simul.*, 101:Paper No. 105895, 21, 2021.
- [4446] Atilla Yilmaz and Ofer Zeitouni. Differing averaged and quenched large deviations for random walks in random environments in dimensions two and three. *Comm. Math. Phys.*, 300(1):243–271, 2010.
- [4447] Atilla Yilmaz and Ofer Zeitouni. Nonconvex homogenization for one-dimensional controlled random walks in random potential. *Ann. Appl. Probab.*, 29(1):36–88, 2019.
- [4448] Lane Yoder. The Hausdorff dimensions of the graph and range of  $N$ -parameter Brownian motion in  $d$ -space. *Ann. Probability*, 3:169–171, 1975.
- [4449] Marc Yor. Loi de l’indice du lacet brownien, et distribution de Hartman-Watson. *Z. Wahrsch. Verw. Gebiete*, 53(1):71–95, 1980.
- [4450] M. Yor. Renormalisation et convergence en loi pour les temps locaux d’intersection du mouvement brownien dans  $\mathbf{R}^3$ . In *Séminaire de probabilités, XIX, 1983/84*, volume 1123 of *Lecture Notes in Math.*, pages 350–365. Springer, Berlin, 1985.
- [4451] Marc Yor. On some exponential functionals of Brownian motion. *Adv. in Appl. Probab.*, 24(3):509–531, 1992.
- [4452] Kôzaku Yosida. *Functional analysis*. Die Grundlehren der mathematischen Wissenschaften, Band 123. Academic Press, Inc., New York; Springer-Verlag, Berlin, 1965.
- [4453] Kôzaku Yosida. *Functional analysis*, volume 123 of *Grundlehren der Mathematischen Wissenschaften [Fundamental Principles of Mathematical Sciences]*. Springer-Verlag, Berlin-New York, sixth edition, 1980.



- [4454] Kosaku Yosida. *Functional analysis*. Classics in Mathematics. Springer-Verlag, Berlin, 1995. Reprint of the sixth (1980) edition.
- [4455] L. C. Young. An inequality of the Hölder type, connected with Stieltjes integration. *Acta Math.*, 67(1):251–282, 1936.
- [4456] Shihang Yu, Dehui Wang, and Xia Chen. Large and moderate deviations for the total population arising from a sub-critical Galton-Watson process with immigration. *J. Theoret. Probab.*, 31(1):41–67, 2018.
- [4457] Wen Yue and Tusheng Zhang. Elliptic stochastic partial differential equations with two reflecting walls. *Infin. Dimens. Anal. Quantum Probab. Relat. Top.*, 17(4):1450025, 16, 2014.
- [4458] Wen Yue and Tusheng Zhang. Absolute continuity of the laws of perturbed diffusion processes and perturbed reflected diffusion processes. *J. Theoret. Probab.*, 28(2):587–618, 2015.
- [4459] Jerzy Zabczyk. Stochastic invariance and consistency of financial models. *Atti Accad. Naz. Lincei Cl. Sci. Fis. Mat. Natur. Rend. Lincei (9) Mat. Appl.*, 11(2):67–80, 2000.
- [4460] J. Zabczyk. Bellman’s inclusions and excessive measures. *Probab. Math. Statist.*, 21(1, Acta Univ. Wratislav. No. 2298):101–122, 2001.
- [4461] Jerzy Zabczyk. A mini course on stochastic partial differential equations. In *Stochastic climate models (Chorin, 1999)*, volume 49 of *Progr. Probab.*, pages 257–284. Birkhäuser, Basel, 2001.
- [4462] Jerzy Zabczyk. Classical control theory. In *Mathematical control theory, Part 1, 2 (Trieste, 2001)*, ICTP Lect. Notes, VIII, pages 1–57. Abdus Salam Int. Cent. Theoret. Phys., Trieste, 2002.
- [4463] J. Zabczyk. More important events in the theory of stochastic processes. *Wiadom. Mat.*, 40:77–95, 2004.
- [4464] Jerzy Zabczyk. *Topics in stochastic processes*. Scuola Normale Superiore di Pisa. Quaderni. [Publications of the Scuola Normale Superiore of Pisa]. Scuola Normale Superiore, Pisa, 2004.
- [4465] Jerzy Zabczyk. Vita: Professor Stefan Rolewicz. *Control Cybernet.*, 36(3):873–884, 2007.
- [4466] Jerzy Zabczyk. *Mathematical control theory*. Modern Birkhäuser Classics. Birkhäuser Boston, Inc., Boston, MA, 2008. An introduction, Reprint of the 1995 edition.
- [4467] Jerzy Zabczyk. *Mathematical control theory—an introduction*. Systems & Control: Foundations & Applications. Birkhäuser/Springer, Cham, [2020] ©2020. Second edition [of 2348543].
- [4468] Jerzy Zabczyk. Controllable systems with vanishing energy. *Ann. Polon. Math.*, 127(1-2):87–98, 2021.
- [4469] J. Zabczyk. Exit problem and control theory. *Systems Control Lett.*, 6(3):165–172, 1985.
- [4470] J. Zabczyk. Structural properties and limit behaviour of linear stochastic systems in Hilbert spaces. In *Mathematical control theory*, volume 14 of *Banach Center Publ.*, pages 591–609. PWN, Warsaw, 1985.
- [4471] J. Zabczyk. Stability under small perturbations. In *Stochastic differential systems (Bad Honnef, 1985)*, volume 78 of *Lect. Notes Control Inf. Sci.*, pages 362–367. Springer, Berlin, 1986.
- [4472] J. Zabczyk. Exit problem for infinite-dimensional systems. In *Stochastic partial differential equations and applications (Trento, 1985)*, volume 1236 of *Lecture Notes in Math.*, pages 239–257. Springer, Berlin, 1987.

- [4473] J. Zabczyk. Stable dynamical systems under small perturbations. *J. Math. Anal. Appl.*, 125(2):568–588, 1987.
- [4474] J. Zabczyk. On large deviations for stochastic evolution equations. In *Stochastic systems and optimization (Warsaw, 1988)*, volume 136 of *Lect. Notes Control Inf. Sci.*, pages 240–253. Springer, Berlin, 1989.
- [4475] J. Zabczyk. Some comments on stabilizability. *Appl. Math. Optim.*, 19(1):1–9, 1989.
- [4476] Jerzy Zabczyk. Some interplays between control theory and stochastic systems. In *Proceedings of the 28th IEEE Conference on Decision and Control, Vol. 1–3 (Tampa, FL, 1989)*, pages 229–231. IEEE, New York, 1989.
- [4477] J. Zabczyk. Symmetric solutions of semilinear stochastic equations. In *Stochastic partial differential equations and applications, II (Trento, 1988)*, volume 1390 of *Lecture Notes in Math.*, pages 237–256. Springer, Berlin, 1989.
- [4478] J. Zabczyk. Law equivalence of Ornstein-Uhlenbeck processes. In *Gaussian random fields (Nagoya, 1990)*, volume 1 of *Ser. Probab. Statist.*, pages 420–432. World Sci. Publ., River Edge, NJ, 1991.
- [4479] Jerzy Zabczyk. *Mathematical control theory: an introduction*. Systems & Control: Foundations & Applications. Birkhäuser Boston, Inc., Boston, MA, 1992.
- [4480] J. Zabczyk. The fractional calculus and stochastic evolution equations. In *Barcelona Seminar on Stochastic Analysis (St. Feliu de Guíxols, 1991)*, volume 32 of *Progr. Probab.*, pages 222–234. Birkhäuser, Basel, 1993.
- [4481] J. Zabczyk. *Chance and decision*. Scuola Normale Superiore di Pisa. Quaderni. [Publications of the Scuola Normale Superiore of Pisa]. Scuola Normale Superiore, Pisa, 1996. Stochastic control in discrete time.
- [4482] Jerzy Zabczyk. Pricing options by dynamic programming. In *Stochastic processes and related topics (Siegmundsberg, 1994)*, volume 10 of *Stochastics Monogr.*, pages 153–160. Gordon and Breach, Yverdon, 1996.
- [4483] Jerzy Zabczyk. Stopping problems on Polish spaces. *Ann. Univ. Mariae Curie-Skłodowska Sect. A*, 51(1):181–199, 1997.
- [4484] J. Zabczyk. Infinite-dimensional diffusions in modelling and analysis. *Jahresber. Deutsch. Math.-Verein.*, 101(2):47–59, 1999.
- [4485] J. Zabczyk. Parabolic equations on Hilbert spaces. In *Stochastic PDE's and Kolmogorov equations in infinite dimensions (Cetraro, 1998)*, volume 1715 of *Lecture Notes in Math.*, pages 117–213. Springer, Berlin, 1999.
- [4486] A. Zabrodin. Random matrices and Laplacian growth. In *The Oxford handbook of random matrix theory*, pages 802–823. Oxford Univ. Press, Oxford, 2011.
- [4487] N. Lanjri Zaidi and D. Nualart. Burgers equation driven by a space-time white noise: absolute continuity of the solution. *Stochastics Stochastics Rep.*, 66(3-4):273–292, 1999.
- [4488] M. Zakai and O. Zeitouni. When does the Ramer formula look like the Girsanov formula? *Ann. Probab.*, 20(3):1436–1440, 1992.
- [4489] Moshe Zakai. On the optimal filtering of diffusion processes. *Z. Wahrscheinlichkeitstheorie und Verw. Gebiete*, 11:230–243, 1969.
- [4490] *Wave collapses*. Elsevier Science B.V., Amsterdam, 1991. Phys. D **52** (1991), no. 1.

- [4491] Lorenzo Zambotti. Integration by parts formulae on convex sets of paths and applications to SPDEs with reflection. *Probab. Theory Related Fields*, 123(4):579–600, 2002.
- [4492] Lorenzo Zambotti. Integration by parts on  $\delta$ -Bessel bridges,  $\delta > 3$  and related SPDEs. *Ann. Probab.*, 31(1):323–348, 2003.
- [4493] G. M. Zaslavsky. Fractional kinetic equation for Hamiltonian chaos. volume 76, pages 110–122. 1994. Chaotic advection, tracer dynamics and turbulent dispersion (Gavi, 1993).
- [4494] O. Zeitouni and B. Z. Bobrovsky. On the reference probability approach to the equations of nonlinear filtering. *Stochastics*, 19(3):133–149, 1986.
- [4495] O. Zeitouni and B. Z. Bobrovsky. On the joint nonlinear filtering-smoothing of diffusion processes. *Systems Control Lett.*, 7(4):317–321, 1986.
- [4496] O. Zeitouni and A. Dembo. Erratum: “A maximum a posteriori estimator for trajectories of diffusion processes”. *Stochastics*, 20(4):341, 1987.
- [4497] O. Zeitouni and A. Dembo. A maximum a posteriori estimator for trajectories of diffusion processes. *Stochastics*, 20(3):221–246, 1987.
- [4498] O. Zeitouni and A. Dembo. Exact filters for the estimation of the number of transitions of finite-state continuous-time Markov processes. *IEEE Trans. Inform. Theory*, 34(4):890–893, 1988.
- [4499] O. Zeitouni and A. Dembo. An existence theorem and some properties of maximum a posteriori estimators of trajectories of diffusions. *Stochastics*, 23(2):197–218, 1988.
- [4500] Ofer Zeitouni and Amir Dembo. On the maximal achievable accuracy in nonlinear filtering problems. *IEEE Trans. Automat. Control*, 33(10):965–967, 1988.
- [4501] O. Zeitouni and A. Dembo. A change of variables formula for Stratonovich integrals and existence of solutions for two-point stochastic boundary value problems. *Probab. Theory Related Fields*, 84(3):411–425, 1990.
- [4502] Ofer Zeitouni and Michael Gutman. Correction to: “On universal hypotheses testing via large deviations”. *IEEE Trans. Inform. Theory*, 37(3):698, 1991.
- [4503] Ofer Zeitouni and Michael Gutman. On universal hypotheses testing via large deviations. *IEEE Trans. Inform. Theory*, 37(2):285–290, 1991.
- [4504] Ofer Zeitouni and Moshe Zakai. On the optimal tracking problem. *SIAM J. Control Optim.*, 30(2):426–439, 1992.
- [4505] Ofer Zeitouni and Moshe Zakai. Erratum: “On the optimal tracking problem” [SIAM J. Control Optim. **30** (1992), no. 2, 426–439; MR1149077 (92m:93054)]. *SIAM J. Control Optim.*, 32(4):1194, 1994.
- [4506] Ofer Zeitouni and Steve Zelditch. Large deviations of empirical measures of zeros of random polynomials. *Int. Math. Res. Not. IMRN*, (20):3935–3992, 2010.
- [4507] Ofer Zeitouni, Jacob Ziv, and Neri Merhav. When is the generalized likelihood ratio test optimal? *IEEE Trans. Inform. Theory*, 38(5):1597–1602, 1992.
- [4508] Ofer Zeitouni. MAP estimation of diffusions—an updated account. In *System theory: modeling, analysis and control (Cambridge, MA, 1999)*, volume 518 of *Kluwer Internat. Ser. Engrg. Comput. Sci.*, pages 145–154. Kluwer Acad. Publ., Boston, MA, 2000.
- [4509] Ofer Zeitouni. Random walks in random environments. In *Proceedings of the International Congress of Mathematicians, Vol. III (Beijing, 2002)*, pages 117–127. Higher Ed. Press, Beijing, 2002.

- [4510] Ofer Zeitouni. Random walks in random environment. In *Lectures on probability theory and statistics*, volume 1837 of *Lecture Notes in Math.*, pages 189–312. Springer, Berlin, 2004.
- [4511] Ofer Zeitouni. Random walks in random environments. *J. Phys. A*, 39(40):R433–R464, 2006.
- [4512] O. Zeitouni. Error bounds for the nonlinear filtering of diffusion processes. In *The Oxford handbook of nonlinear filtering*, pages 561–571. Oxford Univ. Press, Oxford, 2011.
- [4513] Ofer Zeitouni. Random walks in random environment. In *Computational complexity. Vols. 1–6*, pages 2564–2577. Springer, New York, 2012.
- [4514] Ofer Zeitouni. The work of Martin Hairer. In *Proceedings of the International Congress of Mathematicians—Seoul 2014. Vol. 1*, pages 65–71. Kyung Moon Sa, Seoul, 2014.
- [4515] Ofer Zeitouni. Branching random walks and Gaussian fields. In *Probability and statistical physics in St. Petersburg*, volume 91 of *Proc. Sympos. Pure Math.*, pages 437–471. Amer. Math. Soc., Providence, RI, 2016.
- [4516] Ofer Zeitouni. Filtering theory: mathematics in engineering, from Gauss to particle filters. In *Mathematics and society*, pages 71–80. Eur. Math. Soc., Zürich, 2016.
- [4517] Ofer Zeitouni. A conversation with S. R. S. Varadhan. *Statist. Sci.*, 33(1):126–137, 2018.
- [4518] Ofer Zeitouni. The random matrix theory of the classical compact groups [book review of 3971582]. *Bull. Amer. Math. Soc. (N.S.)*, 59(1):127–131, 2022.
- [4519] O. Zeitouni. On the nonexistence of stationary diffusions which satisfy the Beneš condition. *Systems Control Lett.*, 3(6):329–330, 1983.
- [4520] O. Zeitouni. An extension of the Beneš filter and some identification problems solved by nonlinear filtering methods. *Systems Control Lett.*, 5(1):9–17, 1984.
- [4521] O. Zeitouni. On the tightness of some error bounds for the nonlinear filtering problem. *IEEE Trans. Automat. Control*, 29(9):854–857, 1984.
- [4522] Ofer Zeitouni. On the filtering of noise-contaminated signals observed via hard limiters. *IEEE Trans. Inform. Theory*, 34(5):1041–1048, 1988.
- [4523] Ofer Zeitouni. A class of adaptive control problems solved via stochastic control. *Systems Control Lett.*, 12(1):57–62, 1989.
- [4524] Ofer Zeitouni. On the Onsager-Machlup functional of diffusion processes around non- $C^2$ -curves. *Ann. Probab.*, 17(3):1037–1054, 1989.
- [4525] Ofer Zeitouni. Infinite dimensionality results for MAP estimation. In *Stochastic analysis*, pages 513–532. Academic Press, Boston, MA, 1991.
- [4526] O. Zeitouni. Superexponential decay for the GEM process. *J. Appl. Probab.*, 35(3):776–781, 1998.
- [4527] Ya. B. Zeldovich, G. I. Barenblatt, V. B. Librovich, and G. M. Makhviladze. *The mathematical theory of combustion and explosions*. Consultants Bureau [Plenum], New York, 1985. Translated from the Russian by Donald H. McNeill.
- [4528] Ya. B. Zeldovich, S. A. Molchanov, A. A. Ruzmaikin, and D. D. Sokoloff. Self-excitation of a nonlinear scalar field in a random medium. *Proc. Nat. Acad. Sci. U.S.A.*, 84(18):6323–6325, 1987.
- [4529] Ya. B. Zeldovich, S. A. Molchanov, A. A. Ruzmaikin, and D. D. Sokoloff. Intermittency, diffusion and generation in a nonstationary random medium. In *Mathematical physics reviews, Vol. 7*, volume 7 of *Soviet Sci. Rev. Sect. C: Math. Phys. Rev.*, pages 3–110. Harwood Academic Publ., Chur, 1988.

- [4530] Ya. B. Zeldovich, A. A. Ruzmaikin, and D. D. Sokoloff. *The almighty chance*, volume 20 of *World Scientific Lecture Notes in Physics*. World Scientific Publishing Co., Inc., River Edge, NJ, 1990. Translated from the Russian by Anvar Shukurov.
- [4531] Jianliang Zhai, Tusheng Zhang, and Wuting Zheng. Moderate deviations for stochastic models of two-dimensional second grade fluids. *Stoch. Dyn.*, 18(3):1850026, 46, 2018.
- [4532] Jianliang Zhai, Tusheng Zhang, and Wuting Zheng. Large deviations for stochastic models of two-dimensional second grade fluids driven by Lévy noise. *Infin. Dimens. Anal. Quantum Probab. Relat. Top.*, 23(4):2050026, 34, 2020.
- [4533] Jianliang Zhai and Tusheng Zhang. Large deviations for 2-D stochastic Navier-Stokes equations driven by multiplicative Lévy noises. *Bernoulli*, 21(4):2351–2392, 2015.
- [4534] Jianliang Zhai and Tusheng Zhang. Large deviations for stochastic models of two-dimensional second grade fluids. *Appl. Math. Optim.*, 75(3):471–498, 2017.
- [4535] Jianliang Zhai and Tusheng Zhang. 2D stochastic chemotaxis-Navier-Stokes system. *J. Math. Pures Appl. (9)*, 138:307–355, 2020.
- [4536] Sheng Zhang, Guang Lin, and Samy Tindel. Two-dimensional signature of images and texture classification. *Proc. A.*, 478(2266):Paper No. 20220346, 13, 2022.
- [4537] Tusheng Zhang and Qikang Ran. Backward SDEs and Sobolev solutions for semilinear parabolic PDEs with singular coefficients. *Infin. Dimens. Anal. Quantum Probab. Relat. Top.*, 14(3):517–536, 2011.
- [4538] Sheng Zhang, Xiu Yang, Samy Tindel, and Guang Lin. Augmented Gaussian random field: theory and computation. *Discrete Contin. Dyn. Syst. Ser. S*, 15(4):931–957, 2022.
- [4539] Tusheng Zhang and Juan Yang. White noise driven SPDEs with two reflecting walls. *Infin. Dimens. Anal. Quantum Probab. Relat. Top.*, 14(4):647–659, 2011.
- [4540] Jun Zhang, Y.-C. Zhang, P. Alstrøm, and M.T. Levinsen. Modeling forest fire by a paper-burning experiment, a realization of the interface growth mechanism. *Phys. A: Stat. Mech. Appl.*, 189(3):383–389, 1992.
- [4541] Rangrang Zhang and Tusheng Zhang. Quadratic transportation cost inequality for scalar stochastic conservation laws. *J. Math. Anal. Appl.*, 502(1):Paper No. 125230, 26, 2021.
- [4542] Qi Zhang and Huaizhong Zhao. Stationary solutions of SPDEs and infinite horizon BDSDEs. *J. Funct. Anal.*, 252(1):171–219, 2007.
- [4543] Xicheng Zhang.  $L^p$ -theory of semi-linear SPDEs on general measure spaces and applications. *J. Funct. Anal.*, 239(1):44–75, 2006.
- [4544] Tusheng Zhang. Large deviations for stochastic nonlinear beam equations. *J. Funct. Anal.*, 248(1):175–201, 2007.
- [4545] Xicheng Zhang. Regularities for semilinear stochastic partial differential equations. *J. Funct. Anal.*, 249(2):454–476, 2007.
- [4546] Xicheng Zhang. Euler schemes and large deviations for stochastic Volterra equations with singular kernels. *J. Differential Equations*, 244(9):2226–2250, 2008.
- [4547] Tusheng Zhang. Variational inequalities and optimization for Markov processes associated with semi-Dirichlet forms. *SIAM J. Control Optim.*, 48(3):1743–1755, 2009.
- [4548] Xicheng Zhang. A variational representation for random functionals on abstract Wiener spaces. *J. Math. Kyoto Univ.*, 49(3):475–490, 2009.

- [4549] Xicheng Zhang. Stochastic Volterra equations in Banach spaces and stochastic partial differential equation. *J. Funct. Anal.*, 258(4):1361–1425, 2010.
- [4550] Tusheng Zhang. White noise driven SPDEs with reflection: strong Feller properties and Harnack inequalities. *Potential Anal.*, 33(2):137–151, 2010.
- [4551] Tusheng Zhang. A probabilistic approach to Dirichlet problems of semilinear elliptic PDEs with singular coefficients. *Ann. Probab.*, 39(4):1502–1527, 2011.
- [4552] Tusheng Zhang. Systems of stochastic partial differential equations with reflection: existence and uniqueness. *Stochastic Process. Appl.*, 121(6):1356–1372, 2011.
- [4553] Tusheng Zhang. Large deviations for invariant measures of SPDEs with two reflecting walls. *Stochastic Process. Appl.*, 122(10):3425–3444, 2012.
- [4554] Tusheng Zhang. Strong convergence of Wong-Zakai approximations of reflected SDEs in a multidimensional general domain. *Potential Anal.*, 41(3):783–815, 2014.
- [4555] Tusheng Zhang. Lattice approximations of reflected stochastic partial differential equations driven by space-time white noise. *Ann. Appl. Probab.*, 26(6):3602–3629, 2016.
- [4556] Tusheng Zhang. Stochastic Burgers type equations with reflection: existence, uniqueness. *J. Differential Equations*, 267(8):4537–4571, 2019.
- [4557] Yi-Cheng Zhang. Replica scaling analysis of interfaces in random media. *Phys. Rev. B*, 42:4897–4900, Sep 1990.
- [4558] Wuting Zheng, Jianliang Zhai, and Tusheng Zhang. Moderate deviations for stochastic models of two-dimensional second-grade fluids driven by Lévy noise. *Commun. Math. Stat.*, 6(4):583–612, 2018.
- [4559] Hao Zhou, Yaozhong Hu, and Yanghui Liu. Backward Euler method for stochastic differential equations with non-Lipschitz coefficients driven by fractional Brownian motion. *BIT*, 63(3):Paper No. 40, 37, 2023.
- [4560] Tiejuan Zhu and Jerry M. Harris. Modeling acoustic wave propagation in heterogeneous attenuating media using decoupled fractional Laplacians. *GEOPHYSICS*, 79(3):T105–T116, 2014.
- [4561] Paul Zinn-Justin and Jean-Bernard Zuber. Knot theory and matrix integrals. In *The Oxford handbook of random matrix theory*, pages 557–577. Oxford Univ. Press, Oxford, 2011.
- [4562] Martin R. Zirnbauer. Symmetry classes. In *The Oxford handbook of random matrix theory*, pages 43–65. Oxford Univ. Press, Oxford, 2011.
- [4563] V. M. Zolotarev. *One-dimensional stable distributions*, volume 65 of *Translations of Mathematical Monographs*. American Mathematical Society, Providence, RI, 1986. Translated from the Russian by H. H. McFaden, Translation edited by Ben Silver.
- [4564] A. Zygmund. *Trigonometric series. 2nd ed. Vols. I, II*. Cambridge University Press, New York, 1959.
- [4565] A. Zygmund. *Trigonometric series: Vols. I, II*. Cambridge University Press, London-New York, 1968. Second edition, reprinted with corrections and some additions.