

List of publications and accepted manuscripts since 2008

Sergio Albeverio

August 2, 2019

Articles

2008

- [1] S. Albeverio, S. A. Ayupov, and K. K. Kudaybergenov. “Derivations on the algebra of measurable operators affiliated with a type I von Neumann algebra”. In: *Siberian Adv. Math.* 18.2 (2008), pp. 86–94. ISSN: 1055-1344. DOI: [10.3103/S1055134408020028](https://doi.org/10.3103/S1055134408020028). MR: [2654556](#).
- [2] S. Albeverio, S. A. Ayupov, B. A. Omirov, and A. K. Khudoyberdiyev. “ n -dimensional filiform Leibniz algebras of length $(n - 1)$ and their derivations”. In: *J. Algebra* 319.6 (2008), pp. 2471–2488. ISSN: 0021-8693. DOI: [10.1016/j.jalgebra.2007.12.014](https://doi.org/10.1016/j.jalgebra.2007.12.014). MR: [2388317](#).
- [3] S. Albeverio, S. A. Ayupov, and A. A. Zaitov. “On certain properties of the spaces of order-preserving functionals”. In: *Topology Appl.* 155.16 (2008), pp. 1792–1799. ISSN: 0166-8641. DOI: [10.1016/j.topol.2008.05.019](https://doi.org/10.1016/j.topol.2008.05.019). MR: [2445302](#).
- [4] S. Albeverio, V. Barbu, and B. Ferrario. “Uniqueness of the generators of the 2D Euler and Navier-Stokes flows”. In: *Stochastic Process. Appl.* 118.11 (2008), pp. 2071–2084. ISSN: 0304-4149. DOI: [10.1016/j.spa.2007.12.003](https://doi.org/10.1016/j.spa.2007.12.003). MR: [2462289](#).
- [5] S. Albeverio and Y. Belopolskaya. “Jump processes in \mathbb{Q}_p associated with nonlinear pseudo-differential equations”. In: *Journal of Mathematical Sciences (New York)* 152.6 (2008). Originally published in Russian in: Zap. Nauchn. Sem. S.-Peterburg. Otdel. Mat. Inst. Steklov. (POMI) 351 (Veroyatnost i Statistika. 12), 2007, pp. 5–37, 298, pp. 799–816. ISSN: 1072-3374. DOI: [10.1007/s10958-008-9098-z](https://doi.org/10.1007/s10958-008-9098-z). MR: [2742899](#).
- [6] S. Albeverio, Y. Belopolskaya, and M. Feller. “Boundary problems for fully nonlinear parabolic equations with Lévy Laplacian”. In: *Methods Funct. Anal. Topology* 14.1 (2008), pp. 1–9. ISSN: 1029-3531. MR: [2402148](#).

- [7] S. Albeverio, R. Hryniv, and Y. Mykytyuk. “On spectra of non-self-adjoint Sturm-Liouville operators”. In: *Selecta Math. (N.S.)* 13.4 (2008), pp. 571–599. ISSN: 1022-1824. DOI: [10.1007/s00029-008-0051-2](https://doi.org/10.1007/s00029-008-0051-2). MR: [2403304](#).
- [8] S. Albeverio, R. Hryniv, and Y. Mykytyuk. “Reconstruction of radial Dirac and Schrödinger operators from two spectra”. In: *J. Math. Anal. Appl.* 339.1 (2008), pp. 45–57. ISSN: 0022-247X. DOI: [10.1016/j.jmaa.2007.06.034](https://doi.org/10.1016/j.jmaa.2007.06.034). MR: [2370631](#).
- [9] S. Albeverio, V. Koshmanenko, and I. Samoilenco. “The conflict interaction between two complex systems: cyclic migration”. In: *J. Interdiscip. Math.* 11.2 (2008), pp. 163–185. ISSN: 0972-0502. DOI: [10.1080/09720502.2008.10700552](https://doi.org/10.1080/09720502.2008.10700552). MR: [2400937](#).
- [10] S. Albeverio, S. Kuzhel, and S. Torba. “ p -adic Schrödinger-type operator with point interactions”. In: *J. Math. Anal. Appl.* 338.2 (2008), pp. 1267–1281. ISSN: 0022-247X. DOI: [10.1016/j.jmaa.2007.06.016](https://doi.org/10.1016/j.jmaa.2007.06.016). MR: [2386495](#).
- [11] S. Albeverio and S. Liang. “A remark on the nonequivalence of the time-zero ϕ_3^4 -measure with the free field measure”. In: *Markov Process. Related Fields* 14.1 (2008), pp. 159–164. ISSN: 1024-2953. MR: [2433300](#).
- [12] S. Albeverio and S. Alimov. “On a time-optimal control problem associated with the heat exchange process”. In: *Appl. Math. Optim.* 57.1 (2008), pp. 58–68. ISSN: 0095-4616. DOI: [10.1007/s00245-007-9008-7](https://doi.org/10.1007/s00245-007-9008-7). MR: [2373006](#).
- [13] S. Albeverio and W. Alt. “Stochastic dynamics of viscoelastic skeins: condensation waves and continuum limits”. In: *Math. Models Methods Appl. Sci.* 18.suppl. (2008), pp. 1149–1191. ISSN: 0218-2025. DOI: [10.1142/S0218202508002991](https://doi.org/10.1142/S0218202508002991). MR: [2438212](#).
- [14] S. Albeverio, S. A. Ayupov, and K. K. Kudaybergenov. “Derivations on the algebra of τ -compact operators affiliated with a type I von Neumann algebra”. In: *Positivity* 12.2 (2008), pp. 375–386. ISSN: 1385-1292. DOI: [10.1007/s11117-007-2107-5](https://doi.org/10.1007/s11117-007-2107-5). MR: [2399004](#).
- [15] S. Albeverio, A. Daletskii, and A. Kalyuzhnyi. “Random Witten Laplacians: traces of semigroups, L^2 -Betti numbers and index”. In: *J. Eur. Math. Soc. (JEMS)* 10.3 (2008), pp. 571–599. ISSN: 1435-9855. DOI: [10.4171/JEMS/123](https://doi.org/10.4171/JEMS/123). MR: [2421154](#).
- [16] S. Albeverio and B. Ferrario. “Some methods of infinite dimensional analysis in hydrodynamics: an introduction”. In: *SPDE in hydrodynamic: recent progress and prospects*. Vol. 1942. Lecture Notes in Math. Springer, Berlin, 2008, pp. 1–50. DOI: [10.1007/978-3-540-78493-7_1](https://doi.org/10.1007/978-3-540-78493-7_1). MR: [2459084](#).
- [17] S. Albeverio and F. Herzberg. “The moment problem on the Wiener space”. In: *Bull. Sci. Math.* 132.1 (2008), pp. 7–18. ISSN: 0007-4497. DOI: [10.1016/j.bulsci.2007.01.002](https://doi.org/10.1016/j.bulsci.2007.01.002). MR: [2417606](#).
- [18] S. Albeverio and F. S. Herzberg. “Optimisation of measures on a hyperfinite adapted probability space”. In: *Acta Appl. Math.* 100.1 (2008), pp. 1–14. ISSN: 0167-8019. DOI: [10.1007/s10440-007-9174-2](https://doi.org/10.1007/s10440-007-9174-2). MR: [2366385](#).

- [19] S. Albeverio and W. Karwowski. “Jump processes on leaves of multibranching trees”. In: *J. Math. Phys.* 49.9 (2008), pp. 093503, 20. ISSN: 0022-2488. DOI: [10.1063/1.2976216](https://doi.org/10.1063/1.2976216). MR: [2455842](#).
- [20] S. Albeverio and A. Konstantinov. “On the absolutely continuous spectrum of block operator matrices”. In: *Math. Nachr.* 281.8 (2008), pp. 1079–1087. ISSN: 0025-584X. DOI: [10.1002/mana.200510661](https://doi.org/10.1002/mana.200510661). MR: [2427161](#).
- [21] S. Albeverio, V. Koval, M. Pratsiovytyi, and G. Torbin. “On classification of singular measures and fractal properties of quasi-self-affine measures in \mathbf{R}^2 ”. In: *Random Oper. Stoch. Equ.* 16.2 (2008), pp. 181–211. ISSN: 0926-6364. DOI: [10.1515/ROSE.2008.010](https://doi.org/10.1515/ROSE.2008.010). MR: [2446437](#).
- [22] S. Albeverio, S. Kuzhel, and L. P. Nizhnik. “On the perturbation theory of self-adjoint operators”. In: *Tokyo J. Math.* 31.2 (2008), pp. 273–292. ISSN: 0387-3870. DOI: [10.3836/tjm/1233844052](https://doi.org/10.3836/tjm/1233844052). MR: [2477872](#).
- [23] S. Albeverio, M. Pratsiovytyi, and G. Torbin. “Transformations preserving the Hausdorff-Besicovitch dimension”. In: *Cent. Eur. J. Math.* 6.1 (2008), pp. 119–128. ISSN: 1895-1074. DOI: [10.2478/s11533-008-0007-y](https://doi.org/10.2478/s11533-008-0007-y). MR: [2379954](#).
- [24] S. Albeverio and N. V. Smorodina. “A distributional approach to multiple stochastic integrals and transformations of the Poisson measure. II”. In: *Acta Appl. Math.* 102.2-3 (2008), pp. 319–343. ISSN: 0167-8019. DOI: [10.1007/s10440-008-9223-5](https://doi.org/10.1007/s10440-008-9223-5). MR: [2407534](#).
- [25] S. Albeverio and G. Torbin. “On fine fractal properties of generalized infinite Bernoulli convolutions”. In: *Bull. Sci. Math.* 132.8 (2008), pp. 711–727. ISSN: 0007-4497. DOI: [10.1016/j.bulsci.2008.03.002](https://doi.org/10.1016/j.bulsci.2008.03.002). MR: [2474489](#).
- [26] S. Albeverio and M. W. Yoshida. “Reflection positive random fields and Dirichlet spaces”. In: *Proceedings of RIMS Workshop on Stochastic Analysis and Applications*. RIMS Kôkyûroku Bessatsu, B6. Res. Inst. Math. Sci. (RIMS), Kyoto, 2008, pp. 15–29. MR: [2407551](#).
- [27] X. Gao, A. Sergio, K. Chen, S. Fei, and X. Li-Jost. “Entanglement of formation and concurrence for mixed states”. In: *Frontiers of Computer Science in China* 2.2 (June 2008), pp. 114–128. DOI: [10.1007/s11704-008-0017-8](https://doi.org/10.1007/s11704-008-0017-8).
- [28] A. Vancheri, P. Giordano, D. Andrey, and S. Albeverio. “Urban Growth Processes Joining Cellular Automata and Multiagent Systems. Part 1: Theory and Models”. In: *Environment and Planning B: Planning and Design* 35.4 (Jan. 2008), pp. 723–739. DOI: [10.1068/b31080a](https://doi.org/10.1068/b31080a).
- [29] A. Vancheri, P. Giordano, D. Andrey, and S. Albeverio. “Urban growth processes joining cellular automata and multiagent systems. Part 2: computer simulations”. In: *Environment and Planning B: Planning and Design* 35.5 (2008), pp. 863–880. DOI: [10.1068/b31080b](https://doi.org/10.1068/b31080b).

2009

- [30] S. Albeverio, S. A. Ayupov, and K. K. Kudaybergenov. “Description of derivations on locally measurable operator algebras of type I”. In: *Extracta Math.* 24.1 (2009), pp. 1–15. ISSN: 0213-8743. MR: [2596823](#).
- [31] S. Albeverio, S. A. Ayupov, and K. K. Kudaybergenov. “Structure of derivations on various algebras of measurable operators for type I von Neumann algebras”. In: *J. Funct. Anal.* 256.9 (2009), pp. 2917–2943. ISSN: 0022-1236. DOI: [10.1016/j.jfa.2008.11.003](#). MR: [2502428](#).
- [32] S. Albeverio, S. A. Ayupov, B. A. Omirov, and R. M. Turdibaev. “Cartan subalgebras of Leibniz n -algebras”. In: *Comm. Algebra* 37.6 (2009), pp. 2080–2096. ISSN: 0092-7872. DOI: [10.1080/00927870802319406](#). MR: [2530764](#).
- [33] S. Albeverio, S. A. Ayupov, A. A. Zaitov, and J. E. Ruziev. “Algebras of unbounded operators over the ring of measurable functions and their derivations and automorphisms”. In: *Methods Funct. Anal. Topology* 15.2 (2009), pp. 177–187. ISSN: 1029-3531. MR: [2553533](#).
- [34] S. Albeverio, R. Cianci, and A. Y. Khrennikov. “Operator calculus for p -adic valued symbols and quantization”. In: *Rend. Semin. Mat. Univ. Politec. Torino* 67.2 (2009), pp. 137–150. ISSN: 0373-1243. MR: [2598151](#).
- [35] S. Albeverio, S. Evdokimov, and M. Skopina. “ p -adic nonorthogonal wavelet bases”. In: *Tr. Mat. Inst. Steklova* 265. Izbrannye Voprosy Matematicheskaya Fizika i p -adicheskaya Analiza (2009), pp. 7–18. ISSN: 0371-9685. DOI: [10.1134/S0081543809020011](#). MR: [2599539](#).
- [36] S. Albeverio, U. Günther, and S. Kuzhel. “ J -self-adjoint operators with \mathcal{C} -symmetries: an extension theory approach”. In: *J. Phys. A* 42.10 (2009), pp. 105205, 22. ISSN: 1751-8113. DOI: [10.1088/1751-8113/42/10/105205](#). MR: [2485861](#).
- [37] S. Albeverio, R. Hrynniv, and Y. Mykytyuk. “Factorisation of non-negative Fredholm operators and inverse spectral problems for Bessel operators”. In: *Integral Equations Operator Theory* 64.3 (2009), pp. 301–323. ISSN: 0378-620X. DOI: [10.1007/s00020-009-1696-8](#). MR: [2521239](#).
- [38] S. Albeverio, A. Konstantinov, and V. Koshmanenko. “Remarks on the inverse spectral theory for singularly perturbed operators”. In: *Modern analysis and applications. The Mark Krein Centenary Conference. Vol. 1: Operator theory and related topics*. Vol. 190. Oper. Theory Adv. Appl. Birkhäuser Verlag, Basel, 2009, pp. 115–122. DOI: [10.1007/978-3-7643-9919-1_6](#). MR: [2568625](#).
- [39] S. Albeverio, V. S. Koroliuk, and I. V. Samoilenko. “Asymptotic expansion of semi-Markov random evolutions”. In: *Stochastics* 81.5 (2009), pp. 477–502. ISSN: 1744-2508. DOI: [10.1080/17442500802432020](#). MR: [2569263](#).
- [40] S. Albeverio and S. V. Kozyrev. “Frames of p -adic wavelets and orbits of the affine group”. In: *p -Adic Numbers Ultrametric Anal. Appl.* 1.1 (2009), pp. 18–33. ISSN: 2070-0466. DOI: [10.1134/S2070046609010026](#). MR: [2566117](#).

- [41] S. Albeverio and S. V. Kozyrev. “Multidimensional ultrametric pseudodifferential equations”. In: *Tr. Mat. Inst. Steklova* 265. Izbrannye Voprosy Matematicheskaya Fizika i p -adicheskaya Analiza (2009), pp. 19–35. ISSN: 0371-9685. DOI: [10.1134/S0081543809020023](https://doi.org/10.1134/S0081543809020023). MR: [2599540](#).
- [42] S. Albeverio, V. Mandrekar, and B. Rüdiger. “Existence of mild solutions for stochastic differential equations and semilinear equations with non-Gaussian Lévy noise”. In: *Stochastic Process. Appl.* 119.3 (2009), pp. 835–863. ISSN: 0304-4149. DOI: [10.1016/j.spa.2008.03.006](https://doi.org/10.1016/j.spa.2008.03.006). MR: [2499860](#).
- [43] S. Albeverio and S. Mazzucchi. “An asymptotic functional-integral solution for the Schrödinger equation with polynomial potential”. In: *J. Funct. Anal.* 257.4 (2009), pp. 1030–1052. ISSN: 0022-1236. DOI: [10.1016/j.jfa.2009.02.005](https://doi.org/10.1016/j.jfa.2009.02.005). MR: [2535462](#).
- [44] S. Albeverio, B. A. Omirov, and A. K. Khudoyberdiyev. “On the classification of complex Leibniz superalgebras with characteristic sequence $(n - 1, 1|m_1, \dots, m_k)$ and nilindex $n+m$ ”. In: *J. Algebra Appl.* 8.4 (2009), pp. 461–475. ISSN: 0219-4988. DOI: [10.1142/S0219498809003448](https://doi.org/10.1142/S0219498809003448). MR: [2555514](#).
- [45] S. Albeverio and V. M. Shelkovich. “Algebraic aspects of multidimensional δ -shocks and singularities of flux-functions”. In: *Proceedings of the International Conference “Days on Diffraction 2009”, May 26–29, 2009, St. Petersburg, Russia*. Ed. by I. V. Andronov, A. P. Kiselev, M. V. Perel, and A. S. Kirpichnikova. Days on Diffraction, Faculty of Physics, SPbU, 2009, pp. 13–24. ISBN: 978-5-9651-0358-4.
- [46] S. Albeverio, V. Steblovskaya, and K. Wallbaum. “Valuation of equity-linked life insurance contracts using a model with interacting assets”. In: *Stoch. Anal. Appl.* 27.5 (2009), pp. 1077–1095. ISSN: 0736-2994. DOI: [10.1080/07362990902844462](https://doi.org/10.1080/07362990902844462). MR: [2553983](#).
- [47] S. Albeverio. “Scienza, tecnica e potere”. In: *Proceedings of the conference “Low power society, not low price society”, Monte Verità, Ascona, 2008*. Losone: Alchimiaro, Muralto, ELR Edizioni Le Ricerche, 2009.
- [48] S. Albeverio, O. Baranovskyi, M. Pratsiovytyi, and G. Torbin. “The set of incomplete sums of the first Ostrogradsky series and anomalously fractal probability distributions on it”. In: *Rev. Roumaine Math. Pures Appl.* 54.2 (2009), pp. 85–115. ISSN: 0035-3965. MR: [2519524](#).
- [49] S. Albeverio and Y. Belopolskaya. “Stochastic processes in Q_p associated with systems of nonlinear PIDEs”. In: *p -Adic Numbers Ultrametric Anal. Appl.* 1.2 (2009), pp. 105–117. ISSN: 2070-0466. DOI: [10.1134/S2070046609020022](https://doi.org/10.1134/S2070046609020022). MR: [2566056](#).
- [50] S. Albeverio, R. Cianci, and A. Y. Khrennikov. “ p -adic valued quantization”. In: *p -Adic Numbers Ultrametric Anal. Appl.* 1.2 (2009), pp. 91–104. ISSN: 2070-0466. DOI: [10.1134/S2070046609020010](https://doi.org/10.1134/S2070046609020010). MR: [2566055](#).

- [51] S. Albeverio, V. Fatalov, and V. I. Piterbarg. “Asymptotic behavior of the sample mean of a function of the Wiener process and the Macdonald function”. In: *J. Math. Sci. Univ. Tokyo* 16.1 (2009), pp. 55–93. ISSN: 1340-5705. MR: [2548933](#).
- [52] S. Albeverio and S. V. Kozyrev. “Multidimensional basis of p -adic wavelets and representation theory”. In: *p -Adic Numbers Ultrametric Anal. Appl.* 1.3 (2009), pp. 181–189. ISSN: 2070-0466. DOI: [10.1134/S2070046609030017](#). MR: [2566050](#).
- [53] S. Albeverio, S. N. Lakaev, and R. K. Djumanova. “The essential and discrete spectrum of a model operator associated to a system of three identical quantum particles”. In: *Rep. Math. Phys.* 63.3 (2009), pp. 359–380. ISSN: 0034-4877. DOI: [10.1016/S0034-4877\(09\)00017-2](#). MR: [2537935](#).
- [54] S. Albeverio and S. Mazzucchi. “A survey on mathematical Feynman path integrals: construction, asymptotics, applications”. In: *Quantum field theory*. Birkhäuser, Basel, 2009, pp. 49–66. DOI: [10.1007/978-3-7643-8736-5_3](#). MR: [2742748](#).
- [55] S. Albeverio and S. Mazzucchi. “Infinite dimensional oscillatory integrals with polynomial phase function and the trace formula for the heat semigroup”. In: *Astérisque* 327 (2009), 17–45 (2010). ISSN: 0303-1179. MR: [2642350](#).
- [56] S. Albeverio and I. Mitoma. “Asymptotic expansion of perturbative Chern-Simons theory via Wiener space”. In: *Bull. Sci. Math.* 133.3 (2009), pp. 272–314. ISSN: 0007-4497. DOI: [10.1016/j.bulsci.2007.07.003](#). MR: [2512830](#).
- [57] S. Albeverio, A. K. Motovilov, and A. A. Shkalikov. “Bounds on variation of spectral subspaces under J -self-adjoint perturbations”. In: *Integral Equations Operator Theory* 64.4 (2009), pp. 455–486. ISSN: 0378-620X. DOI: [10.1007/s00020-009-1702-1](#). MR: [2534029](#).
- [58] S. Albeverio and A. M. Paolucci. “Radial multiresolution, Cuntz algebras representations and an application to fractals”. In: *Complex Anal. Oper. Theory* 3.1 (2009), pp. 1–18. ISSN: 1661-8254. DOI: [10.1007/s11785-008-0063-0](#). MR: [2481899](#).
- [59] S. Albeverio and O. Rozanova. “The non-viscous Burgers equation associated with random position in coordinate space: a threshold for blow up behaviour”. In: *Math. Models Methods Appl. Sci.* 19.5 (2009), pp. 749–767. ISSN: 0218-2025. DOI: [10.1142/S0218202509003607](#). MR: [2531038](#).
- [60] S. Albeverio and M. W. Yoshida. “Hida distribution construction of non-Gaussian reflection positive generalized random fields”. In: *Infin. Dimens. Anal. Quantum Probab. Relat. Top.* 12.1 (2009), pp. 21–49. ISSN: 0219-0257. DOI: [10.1142/S0219025709003550](#). MR: [2509983](#).
- [61] Z.-G. Li, S.-M. Fei, S. Albeverio, and W. M. Liu. “Bound of entanglement of assistance and monogamy constraints”. In: *Physical Review A* 80.3 (Sept. 2009). DOI: [10.1103/physreva.80.034301](#).

2010

- [62] S. A. Albeverio, Y. I. Belopolskaya, and M. N. Feller. “The Cauchy problem for the wave equation with the Lévy Laplacian”. In: *Mat. Zametki* 87.6 (2010), pp. 803–813. ISSN: 0025-567X. DOI: [10.1134/S0001434610050172](https://doi.org/10.1134/S0001434610050172). MR: [2840374](#).
- [63] S. Albeverio, S. A. Ayupov, and R. Z. Abdullaev. “Arens spaces associated with von Neumann algebras and normal states”. In: *Positivity* 14.1 (2010), pp. 105–121. ISSN: 1385-1292. DOI: [10.1007/s11117-009-0008-5](https://doi.org/10.1007/s11117-009-0008-5). MR: [2596467](#).
- [64] S. Albeverio, S. A. Ayupov, R. A. Dadakhodjaev, and A. A. Rakhimov. “On Jones’ index for real W^* -algebras”. In: *Eurasian Math. J.* 1.4 (2010), pp. 5–19. ISSN: 2077-9879. MR: [2905199](#).
- [65] S. Albeverio, V. Barbu, and B. Ferrario. “Erratum to “Uniqueness of the generators of 2D Euler and Stokes flows” [Stochastic Process. Appl. 118 (11) (2008) 2071–2084] [MR2462289]”. In: *Stochastic Process. Appl.* 120.10 (2010), p. 2102. ISSN: 0304-4149. DOI: [10.1016/j.spa.2010.05.014](https://doi.org/10.1016/j.spa.2010.05.014). MR: [2673991](#).
- [66] S. Albeverio and Y. Belopolskaya. “Generalized solutions of the Cauchy problem for the Navier-Stokes system and diffusion processes”. In: *Cubo* 12.2 (2010), pp. 77–96. ISSN: 0716-7776. DOI: [10.4067/s0719-06462010000200006](https://doi.org/10.4067/s0719-06462010000200006). MR: [2724881](#).
- [67] S. Albeverio, Y. I. Belopolskaya, and M. N. Feller. “Boundary problems for the wave equation with the Lévy Laplacian in Shilov’s class”. In: *Methods Funct. Anal. Topology* 16.3 (2010), pp. 197–202. ISSN: 1029-3531. MR: [2743587](#).
- [68] S. Albeverio, G. Cognola, M. Spreafico, and S. Zerbini. “Singular perturbations with boundary conditions and the Casimir effect in the half space”. In: *J. Math. Phys.* 51.6 (2010), pp. 063502, 38. ISSN: 0022-2488. DOI: [10.1063/1.3397551](https://doi.org/10.1063/1.3397551). MR: [2676479](#).
- [69] S. Albeverio, S. Evdokimov, and M. Skopina. “ p -adic multiresolution analysis and wavelet frames”. In: *J. Fourier Anal. Appl.* 16.5 (2010), pp. 693–714. ISSN: 1069-5869. DOI: [10.1007/s00041-009-9118-5](https://doi.org/10.1007/s00041-009-9118-5). MR: [2673705](#).
- [70] S. Albeverio and S. Mazzucchi. “Infinite dimensional integrals and their asymptotics: some recent developments and applications”. In: *Stochastic partial differential equations and applications*. Vol. 25. Quad. Mat. Dept. Math., Seconda Univ. Napoli, Caserta, 2010, pp. 1–23. MR: [2985078](#).
- [71] S. Albeverio and V. Polischook. “Prüfer’s ideal numbers as Gelfand’s maximal ideals”. In: *p -Adic Numbers Ultrametric Anal. Appl.* 2.1 (2010), pp. 35–54. ISSN: 2070-0466. DOI: [10.1134/S2070046610010036](https://doi.org/10.1134/S2070046610010036). MR: [2594437](#).
- [72] S. Albeverio, Z. Brzeźniak, and J.-L. Wu. “Existence of global solutions and invariant measures for stochastic differential equations driven by Poisson type noise with non-Lipschitz coefficients”. In: *J. Math. Anal. Appl.* 371.1 (2010), pp. 309–322. ISSN: 0022-247X. DOI: [10.1016/j.jmaa.2010.05.039](https://doi.org/10.1016/j.jmaa.2010.05.039). MR: [2661009](#).

- [73] S. Albeverio, V. A. Geyler, E. N. Grishanov, and D. A. Ivanov. “Point perturbations in constant curvature spaces”. In: *Internat. J. Theoret. Phys.* 49.4 (2010), pp. 728–758. ISSN: 0020-7748. DOI: [10.1007/s10773-010-0252-2](https://doi.org/10.1007/s10773-010-0252-2). MR: [2608554](#).
- [74] S. Albeverio, A. Kostenko, and M. Malamud. “Spectral theory of semibounded Sturm-Liouville operators with local interactions on a discrete set”. In: *J. Math. Phys.* 51.10 (2010), pp. 102102, 24. ISSN: 0022-2488. DOI: [10.1063/1.3490672](https://doi.org/10.1063/1.3490672). MR: [2761288](#).
- [75] S. Albeverio and S. V. Kozyrev. “Multidimensional p -adic wavelets for the deformed metric”. In: *p -Adic Numbers Ultrametric Anal. Appl.* 2.4 (2010), pp. 265–277. ISSN: 2070-0466. DOI: [10.1134/S2070046610040011](https://doi.org/10.1134/S2070046610040011). MR: [2738979](#).
- [76] S. Albeverio and S. V. Kozyrev. “Pseudodifferential p -adic vector fields and pseudodifferentiation of a composite p -adic function”. In: *p -Adic Numbers Ultrametric Anal. Appl.* 2.1 (2010), pp. 21–34. ISSN: 2070-0466. DOI: [10.1134/S2070046610010024](https://doi.org/10.1134/S2070046610010024). MR: [2594436](#).
- [77] S. Albeverio, A. K. Motovilov, and C. Tretter. “Bounds on the spectrum and reducing subspaces of a J -self-adjoint operator”. In: *Indiana Univ. Math. J.* 59.5 (2010), pp. 1737–1776. ISSN: 0022-2518. DOI: [10.1512/iumj.2010.59.4225](https://doi.org/10.1512/iumj.2010.59.4225). MR: [2865428](#).
- [78] S. Albeverio and S. Rabanovich. “Decomposition of a scalar operator into a product of unitary operators with two points in spectrum”. In: *Linear Algebra Appl.* 433.6 (2010), pp. 1127–1137. ISSN: 0024-3795. DOI: [10.1016/j.laa.2010.04.039](https://doi.org/10.1016/j.laa.2010.04.039). MR: [2661679](#).
- [79] S. Albeverio and O. Rozanova. “Suppression of unbounded gradients in an SDE associated with the Burgers equation”. In: *Proc. Amer. Math. Soc.* 138.1 (2010), pp. 241–251. ISSN: 0002-9939. DOI: [10.1090/S0002-9939-09-10020-5](https://doi.org/10.1090/S0002-9939-09-10020-5). MR: [2550189](#).
- [80] S. Albeverio and M. W. Yoshida. “Some abstract considerations on the homogenization problem of infinite dimensional diffusions”. In: *Applications of renormalization group methods in mathematical sciences*. RIMS Kôkyûroku Bessatsu, B21. Res. Inst. Math. Sci. (RIMS), Kyoto, 2010, pp. 183–192. MR: [2792029](#).
- [81] S.-M. Fei, S. Albeverio, A. Cabello, N. Jing, and D. Goswami. “(Editorial) Quantum information and entanglement”. In: *Adv. Math. Phys.* (2010), Art. ID 657878, 3. ISSN: 1687-9120. DOI: [10.1155/2010/657878](https://doi.org/10.1155/2010/657878). MR: [2646382](#).

2011

- [82] S. Albeverio and M. V. Altaisky. “A remark on gauge invariance in wavelet-based quantum field theory”. In: *New Advances in Physics* 5.1 (2011), pp. 1–8. ISSN: 0974-3553.
- [83] S. Albeverio, S. A. Ayupov, R. Z. Abdullaev, and K. K. Kudaybergenov. “Additive derivations on generalized Arens algebras”. In: *Lobachevskii J. Math.* 32.3 (2011), pp. 194–202. ISSN: 1995-0802. DOI: [10.1134/S1995080211030024](https://doi.org/10.1134/S1995080211030024). MR: [2825495](#).

- [84] S. Albeverio, S. A. Ayupov, K. K. Kudaybergenov, and B. O. Nurjanov. “Local derivations on algebras of measurable operators”. In: *Commun. Contemp. Math.* 13.4 (2011), pp. 643–657. ISSN: 0219-1997. DOI: [10 . 1142 / S0219199711004270](https://doi.org/10.1142/S0219199711004270). MR: [2826440](#).
- [85] S. Albeverio and V. G. Danilov. “Global in time solutions to Kolmogorov-Feller pseudodifferential equations with small parameter”. In: *Russ. J. Math. Phys.* 18.1 (2011), pp. 10–25. ISSN: 1061-9208. DOI: [10 . 1134 / S1061920811010031](https://doi.org/10.1134/S1061920811010031). MR: [2783900](#).
- [86] S. Albeverio, R. Hryniv, and Y. Mykytyuk. “Inverse scattering for discontinuous impedance Schrödinger operators: a model example”. In: *J. Phys. A* 44.34 (2011), pp. 345204, 8. ISSN: 1751-8113. DOI: [10 . 1088 / 1751 - 8113 / 44 / 34 / 345204](https://doi.org/10.1088/1751-8113/44/34/345204). MR: [2823449](#).
- [87] S. Albeverio, A. Y. Khrennikov, and V. M. Shelkovich. “The Cauchy problems for evolutionary pseudo-differential equations over p -adic field and the wavelet theory”. In: *J. Math. Anal. Appl.* 375.1 (2011), pp. 82–98. ISSN: 0022-247X. DOI: [10 . 1016 / j.jmaa.2010.08.053](https://doi.org/10.1016/j.jmaa.2010.08.053). MR: [2735696](#).
- [88] S. Albeverio, V. Koshmanenko, M. Pratsiovytyi, and G. Torbin. “On fine structure of singularly continuous probability measures and random variables with independent Q -symbols”. In: *Methods Funct. Anal. Topology* 17.2 (2011), pp. 97–111. ISSN: 1029-3531. MR: [2849470](#).
- [89] S. Albeverio and A. K. Motovilov. “Operator Stieltjes integrals with respect to a spectral measure and solutions of some operator equations”. In: *Trans. Moscow Math. Soc.* (2011), pp. 45–77. ISSN: 0077-1554. DOI: [10 . 1090 / s0077 - 1554 - 2012 - 00195 - 2](https://doi.org/10.1090/s0077-1554-2012-00195-2). MR: [3184812](#).
- [90] S. Albeverio, N. Smorodina, and M. Faddeev. “The probabilistic representation of the exponent of a class of pseudo-differential operators”. In: *Global and Stochastic Analysis* 1.2 (2011), pp. 123–148. ISSN: 2248-9444.
- [91] S. Albeverio, S. Ayupov, K. Kudaybergenov, and R. Djumamuratov. “Automorphisms of central extensions of type I von Neumann algebras”. In: *Studia Math.* 207.1 (2011), pp. 1–17. ISSN: 0039-3223. DOI: [10 . 4064 / sm207 - 1 - 1](https://doi.org/10.4064/sm207-1-1). MR: [2860316](#).
- [92] S. Albeverio, L. Di Persio, and E. Mastropiagomo. “Small noise asymptotic expansions for stochastic PDE’s, I. The case of a dissipative polynomially bounded nonlinearity”. In: *Tohoku Math. J. (2)* 63.4 (2011), pp. 877–898. ISSN: 0040-8735. DOI: [10 . 2748 / tmj / 1325886292](https://doi.org/10.2748/tmj/1325886292). MR: [2872967](#).
- [93] S. Albeverio and S. Mazzucchi. “Path integral: mathematical aspects”. In: *Scholarpedia* 6.1 (2011), p. 8832. DOI: [10 . 4249 / scholarpedia.8832](https://doi.org/10.4249/scholarpedia.8832).
- [94] S. Albeverio and S. Mazzucchi. “The trace formula for the heat semigroup with polynomial potential”. In: *Seminar on Stochastic Analysis, Random Fields and Applications VI*. Vol. 63. Progr. Probab. Birkhäuser/Springer Basel AG, Basel, 2011, pp. 3–21. DOI: [10 . 1007 / 978 - 3 - 0348 - 0021 - 1 _ 1](https://doi.org/10.1007/978-3-0348-0021-1_1). MR: [2857015](#).

2012

- [95] S. Albeverio, S. A. Ayupov, A. A. Rakhimov, and R. A. Dadakhodjaev. “Index theory for real factors”. In: *Eurasian Math. J.* 3.2 (2012), pp. 12–20. ISSN: 2077-9879. MR: [3024117](#).
- [96] S. Albeverio, R. Hryniv, and Y. Mykytyuk. “Scattering theory for Schrödinger operators with Bessel-type potentials”. In: *J. Reine Angew. Math.* 666 (2012), pp. 83–113. ISSN: 0075-4102. DOI: [10.1515/CRELLE.2011.115](#). MR: [2920882](#).
- [97] S. Albeverio, P. E. T. Jorgensen, and A. M. Paolucci. “On fractional Brownian motion and wavelets”. In: *Complex Anal. Oper. Theory* 6.1 (2012), pp. 33–63. ISSN: 1661-8254. DOI: [10.1007/s11785-010-0077-2](#). MR: [2886608](#).
- [98] S. Albeverio and S. V. Kozyrev. “Clustering by hypergraphs and dimensionality of cluster systems”. In: *p-Adic Numbers Ultrametric Anal. Appl.* 4.3 (2012), pp. 167–178. ISSN: 2070-0466. DOI: [10.1134/S2070046612030016](#). MR: [2969090](#).
- [99] S. Albeverio, K. K. Kudaybergenov, and R. T. Djumamuratov. “Conditions of coincidence of central extensions of von Neumann algebras and algebras of measurable operators”. In: *Lobachevskii J. Math.* 33.3 (2012), pp. 200–207. ISSN: 1995-0802. DOI: [10.1134/S199508021203002X](#). MR: [2969305](#).
- [100] S. Albeverio and S. Kuzhel. “On elements of the Lax-Phillips scattering scheme for \mathcal{PT} -symmetric operators”. In: *J. Phys. A* 45.44 (2012), pp. 444001, 20. ISSN: 1751-8113. DOI: [10.1088/1751-8113/45/44/444001](#). MR: [2991868](#).
- [101] S. Albeverio, S. N. Lakaev, and A. M. Khalkhujaev. “Number of eigenvalues of the three-particle Schrödinger operators on lattices”. In: *Markov Process. Related Fields* 18.3 (2012), pp. 387–420. ISSN: 1024-2953. MR: [3025422](#).
- [102] S. Albeverio and M. Skopina. “Haar bases for $L^2(\mathbb{Q}_2^2)$ generated by one wavelet function”. In: *Int. J. Wavelets Multiresolut. Inf. Process.* 10.5 (2012), pp. 1250042, 13. ISSN: 0219-6913. DOI: [10.1142/S0219691312500427](#). MR: [2994779](#).
- [103] S. Albeverio and V. Danilov. “Construction of global-in-time solutions to Kolmogorov-Feller pseudodifferential equations with a small parameter using characteristics”. In: *Math. Nachr.* 285.4 (2012), pp. 426–439. ISSN: 0025-584X. DOI: [10.1002/mana.200910065](#). MR: [2899635](#).
- [104] S. Albeverio, A. Debussche, and L. Xu. “Exponential mixing of the 3D stochastic Navier-Stokes equations driven by mildly degenerate noises”. In: *Appl. Math. Optim.* 66.2 (2012), pp. 273–308. ISSN: 0095-4616. DOI: [10.1007/s00245-012-9172-2](#). MR: [2965267](#).
- [105] S. Albeverio, A. Hilbert, and V. Kolokoltsov. “Uniform asymptotic bounds for the heat kernel and the trace of a stochastic geodesic flow”. In: *Stochastics* 84.2-3 (2012), pp. 315–333. ISSN: 1744-2508. DOI: [10.1080/17442508.2010.519029](#). MR: [2916882](#).

- [106] S. Albeverio, H. Kawabi, and M. Röckner. “Strong uniqueness for both Dirichlet operators and stochastic dynamics to Gibbs measures on a path space with exponential interactions”. In: *J. Funct. Anal.* 262.2 (2012), pp. 602–638. ISSN: 0022-1236. DOI: [10.1016/j.jfa.2011.09.023](https://doi.org/10.1016/j.jfa.2011.09.023). MR: [2854715](#).
- [107] S. Albeverio, Y. Kondratiev, Y. Kozitsky, and M. Röckner. “Phase transitions and quantum effects in anharmonic crystals”. In: *Internat. J. Modern Phys. B* 26.11 (2012), pp. 1250063, 32. ISSN: 0217-9792. DOI: [10.1142/S0217979212500634](https://doi.org/10.1142/S0217979212500634). MR: [2916726](#).
- [108] S. Albeverio and S. Kusuoka. “Diffusion processes in thin tubes and their limits on graphs”. In: *Ann. Probab.* 40.5 (2012), pp. 2131–2167. ISSN: 0091-1798. DOI: [10.1214/11-AOP667](https://doi.org/10.1214/11-AOP667). MR: [3025713](#).
- [109] S. Albeverio and A. K. Motovilov. “The a priori tan Θ theorem for spectral subspaces”. In: *Integral Equations Operator Theory* 73.3 (2012), pp. 413–430. ISSN: 0378-620X. DOI: [10.1007/s00020-012-1976-6](https://doi.org/10.1007/s00020-012-1976-6). MR: [2945213](#).

2013

- [110] S. Albeverio, O. Baranovskyi, Y. Kondratiev, and M. Pratsiovytyi. “On one class of functions related to Ostrogradsky series and containing singular and non-differentiable functions”. In: *Naukovyyj chasopys NPU imeni M. P. Drahomanova. Ceriya 1. Fizyko-matematychni nauky Kyiv: NPU imeni M. P. Drahomanova* 15 (2013), pp. 35–55.
- [111] S. Albeverio, A. Y. Khrennikov, S. V. Kozyrev, S. A. Vakulenko, and I. V. Volovich. “In memory of Vladimir M. Shelkovich (1949–2013)”. In: *p-Adic Numbers Ultrametric Anal. Appl.* 5.3 (2013), pp. 242–245. ISSN: 2070-0466. DOI: [10.1134/S2070046613030084](https://doi.org/10.1134/S2070046613030084). MR: [3090219](#).
- [112] S. Albeverio, U. A. Rozikov, and I. A. Sattarov. “ p -adic $(2, 1)$ -rational dynamical systems”. In: *J. Math. Anal. Appl.* 398.2 (2013), pp. 553–566. ISSN: 0022-247X. DOI: [10.1016/j.jmaa.2012.09.009](https://doi.org/10.1016/j.jmaa.2012.09.009). MR: [2990080](#).
- [113] S. Albeverio, V. Steblovskaya, and K. Wallbaum. “Investment instruments with volatility target mechanism”. In: *Quant. Finance* 13.10 (2013), pp. 1519–1528. ISSN: 1469-7688. DOI: [10.1080/14697688.2013.804943](https://doi.org/10.1080/14697688.2013.804943). MR: [3175921](#).
- [114] S. Albeverio and C. Cacciapuoti. “The Riemann zeta in terms of the dilogarithm”. In: *J. Number Theory* 133.1 (2013), pp. 242–277. ISSN: 0022-314X. DOI: [10.1016/j.jnt.2012.06.002](https://doi.org/10.1016/j.jnt.2012.06.002). MR: [2981411](#).
- [115] S. Albeverio, L. Di Persio, and E. Mastrogiacomo. “Invariant measures for stochastic differential equations on networks”. In: *Spectral analysis, differential equations and mathematical physics: a festschrift in honor of Fritz Gesztesy’s 60th birthday*. Vol. 87. Proc. Sympos. Pure Math. Amer. Math. Soc., Providence, RI, 2013, pp. 1–33. DOI: [10.1090/pspum/087/01431](https://doi.org/10.1090/pspum/087/01431). MR: [3087896](#).

- [116] S. Albeverio, S. Fassari, and F. Rinaldi. “A remarkable spectral feature of the Schrödinger Hamiltonian of the harmonic oscillator perturbed by an attractive δ' -interaction centred at the origin: double degeneracy and level crossing”. In: *J. Phys. A* 46.38 (2013), pp. 385305, 16. ISSN: 1751-8113. DOI: [10.1088/1751-8113/46/38/385305](https://doi.org/10.1088/1751-8113/46/38/385305). MR: [3105608](#).
- [117] S. Albeverio, R. O. Hryniv, Y. V. Mykytyuk, and P. A. Perry. “Inverse scattering for non-classical impedance Schrödinger operators”. In: *Operator methods in mathematical physics*. Vol. 227. Oper. Theory Adv. Appl. Birkhäuser/Springer Basel AG, Basel, 2013, pp. 1–42. DOI: [10.1007/978-3-0348-0531-5_1](https://doi.org/10.1007/978-3-0348-0531-5_1). MR: [3050157](#).
- [118] S. Albeverio, A. Korshunova, and O. Rozanova. “A probabilistic model associated with the pressureless gas dynamics”. In: *Bull. Sci. Math.* 137.7 (2013), pp. 902–922. ISSN: 0007-4497. DOI: [10.1016/j.bulsci.2013.05.001](https://doi.org/10.1016/j.bulsci.2013.05.001). MR: [3116219](#).
- [119] S. Albeverio, A. Kostenko, M. Malamud, and H. Neidhardt. “Spherical Schrödinger operators with δ -type interactions”. In: *J. Math. Phys.* 54.5 (2013), pp. 052103, 24. ISSN: 0022-2488. DOI: [10.1063/1.4803708](https://doi.org/10.1063/1.4803708). MR: [3098915](#).
- [120] S. Albeverio, M. Malamud, and V. Mogilevskii. “On Titchmarsh-Weyl functions and eigenfunction expansions of first-order symmetric systems”. In: *Integral Equations Operator Theory* 77.3 (2013), pp. 303–354. ISSN: 0378-620X. DOI: [10.1007/s00020-013-2090-0](https://doi.org/10.1007/s00020-013-2090-0). MR: [3116662](#).
- [121] S. Albeverio, E. Mastropiagomo, and B. Smii. “Small noise asymptotic expansions for stochastic PDE’s driven by dissipative nonlinearity and Lévy noise”. In: *Stochastic Process. Appl.* 123.6 (2013), pp. 2084–2109. ISSN: 0304-4149. DOI: [10.1016/j.spa.2013.01.013](https://doi.org/10.1016/j.spa.2013.01.013). MR: [3038499](#).
- [122] S. Albeverio and A. K. Motovilov. “Sharpening the norm bound in the subspace perturbation theory”. In: *Complex Anal. Oper. Theory* 7.4 (2013), pp. 1389–1416. ISSN: 1661-8254. DOI: [10.1007/s11785-012-0245-7](https://doi.org/10.1007/s11785-012-0245-7). MR: [3079864](#).
- [123] S. Albeverio and L. Nizhnik. “Schrödinger operators with nonlocal potentials”. In: *Methods Funct. Anal. Topology* 19.3 (2013), pp. 199–210. ISSN: 1029-3531. MR: [3136727](#).
- [124] S. Albeverio and O. Rozanova. “A representation of solutions to a scalar conservation law in several dimensions”. In: *J. Math. Anal. Appl.* 405.2 (2013), pp. 711–719. ISSN: 0022-247X. DOI: [10.1016/j.jmaa.2013.04.039](https://doi.org/10.1016/j.jmaa.2013.04.039). MR: [3061046](#).

2014

- [125] S. Albeverio. “Preface: [Special issue on singular perturbation theory; analysis, geometry, and stochastics (part 1)]”. In: *Arab. J. Math. (Springer)* 3.4 (2014), pp. 379–380. ISSN: 2193-5343. DOI: [10.1007/s40065-014-0120-7](https://doi.org/10.1007/s40065-014-0120-7). MR: [3284352](#).
- [126] S. Albeverio, R. A. Dadakhodjaev, and A. A. Rakhimov. “Real ideals of compact operators of complex factors”. In: *Positivity* 18.1 (2014), pp. 1–8. ISSN: 1385-1292. DOI: [10.1007/s11117-013-0226-8](https://doi.org/10.1007/s11117-013-0226-8). MR: [3167061](#).

- [127] S. Albeverio and S. Kawasaki. “On a localization property of wavelet coefficients for processes with stationary increments, and applications. II. Localization with respect to scale”. In: *Osaka J. Math.* 51.1 (2014), pp. 1–37. ISSN: 0030-6126. MR: [3192529](#).
- [128] S. Albeverio, Y. Kondratiev, R. Nikiforov, and G. Torbin. “On fractal properties of non-normal numbers with respect to Rényi f -expansions generated by piecewise linear functions”. In: *Bull. Sci. Math.* 138.3 (2014), pp. 440–455. ISSN: 0007-4497. DOI: [10.1016/j.bulsci.2013.10.005](#). MR: [3206478](#).
- [129] S. Albeverio, M. Röckner, and M. W. Yoshida. “A homeomorphism relating path spaces of stochastic processes with values in $\mathbb{R}^{\mathbb{Z}}$ respectively $(S^1)^{\mathbb{Z}}$ ”. In: *Infin. Dimens. Anal. Quantum Probab. Relat. Top.* 17.1 (2014), pp. 1450002, 30. ISSN: 0219-0257. DOI: [10.1142/S0219025714500027](#). MR: [3189646](#).
- [130] “Dirichlet form theory and its applications”. In: *Oberwolfach Rep.* 11.4 (2014). Abstracts from the workshop held October 19–25, 2014, Organized by Sergio Albeverio, Zhen-Qing Chen, Masatoshi Fukushima and Michael Röckner, pp. 2667–2756. ISSN: 1660-8933. DOI: [10.4171/OWR/2014/48](#). MR: [3443100](#).

2015

- [131] S. Albeverio, B. K. Driver, M. Gordina, and A. M. Vershik. “Equivalence of the Brownian and energy representations”. In: *Zap. Nauchn. Sem. S.-Peterburg. Otdel. Mat. Inst. Steklov. (POMI)* 441.Veroyatnost i Statistika. 22 (2015), pp. 17–44. ISSN: 0373-2703. DOI: [10.1007/s10958-016-3134-1](#). MR: [3504497](#).
- [132] S. Albeverio, B. A. Omirov, and U. A. Rozikov. “Periodic algebras generated by groups”. In: *Algebra Colloq.* 22.4 (2015), pp. 541–554. ISSN: 1005-3867. DOI: [10.1142/S1005386715000462](#). MR: [3403690](#).
- [133] S. Albeverio. “Preface [Special Issue on Singular Perturbation Theory; Analysis, Geometry, and Stochastics (Part 2)]”. In: *Arab. J. Math. (Springer)* 4.4 (2015), pp. 229–230. ISSN: 2193-5343. DOI: [10.1007/s40065-015-0140-y](#). MR: [3428803](#).
- [134] S. Albeverio, S. Fassari, and F. Rinaldi. “A remark on the heat equation with a point perturbation, the Feynman-Kac formula with local time and derivative pricing”. In: *Rep. Math. Phys.* 75.2 (2015), pp. 257–265. ISSN: 0034-4877. DOI: [10.1016/S0034-4877\(15\)30006-9](#). MR: [3343242](#).
- [135] S. Albeverio, S. Fassari, and F. Rinaldi. “The discrete spectrum of the spinless one-dimensional Salpeter Hamiltonian perturbed by δ -interactions”. In: *Journal of Physics A: Mathematical and Theoretical* 48.18 (Apr. 2015), p. 185301. DOI: [10.1088/1751-8113/48/18/185301](#).
- [136] S. Albeverio, Y. Kulyba, M. Pratsiovytyi, and G. Torbin. “On singularity and fine spectral structure of random continued fractions”. In: *Math. Nachr.* 288.16 (2015), pp. 1803–1813. ISSN: 0025-584X. DOI: [10.1002/mana.201500045](#). MR: [3417870](#).

- [137] S. Albeverio and S. Kuzhel. “ \mathcal{PT} -symmetric operators in quantum mechanics: Krein spaces methods”. In: *Non-selfadjoint operators in quantum physics*. Wiley, Hoboken, NJ, 2015, pp. 293–343. MR: [3381700](#).
- [138] S. Albeverio, Z.-M. Ma, and M. Röckner. “Quasi regular Dirichlet forms and the stochastic quantization problem”. In: *Festschrift Masatoshi Fukushima*. Vol. 17. Interdiscip. Math. Sci. World Sci. Publ., Hackensack, NJ, 2015, pp. 27–58. DOI: [10.1142/9789814596534_0003](#). MR: [3379334](#).
- [139] S. Albeverio and S. Mazzucchi. “An introduction to infinite-dimensional oscillatory and probabilistic integrals”. In: *Stochastic analysis: a series of lectures*. Vol. 68. Progr. Probab. Birkhäuser/Springer, Basel, 2015, pp. 1–54. DOI: [10.1007/978-3-0348-0909-2_1](#). MR: [3558120](#).
- [140] S. Albeverio and S. Mazzucchi. “Infinite dimensional oscillatory integrals as projective systems of functionals”. In: *J. Math. Soc. Japan* 67.4 (2015), pp. 1295–1316. ISSN: 0025-5645. DOI: [10.2969/jmsj/06741295](#). MR: [3417499](#).
- [141] S. Albeverio and B. Smii. “Asymptotic expansions for SDE’s with small multiplicative noise”. In: *Stochastic Process. Appl.* 125.3 (2015), pp. 1009–1031. ISSN: 0304-4149. DOI: [10.1016/j.spa.2014.09.009](#). MR: [3303966](#).
- [142] S. Albeverio and S. Ugolini. “A Doob h-transform of the Gross-Pitaevskii Hamiltonian”. In: *J. Stat. Phys.* 161.2 (2015), pp. 486–508. ISSN: 0022-4715. DOI: [10.1007/s10955-015-1337-3](#). MR: [3401027](#).

2016

- [143] S. Albeverio, S. Fassari, and F. Rinaldi. “Spectral properties of a symmetric three-dimensional quantum dot with a pair of identical attractive δ -impurities symmetrically situated around the origin”. In: *Nanosystems: Physics, Chemistry, Mathematics* 7.2 (Apr. 2016), pp. 268–289. DOI: [10.17586/2220-8054-2016-7-2-268-289](#).
- [144] S. Albeverio, S. Fassari, and F. Rinaldi. “Spectral properties of a symmetric three-dimensional quantum dot with a pair of identical attractive δ -impurities symmetrically situated around the origin II”. In: *Nanosystems: Physics, Chemistry, Mathematics* 7.5 (Oct. 2016), pp. 803–815. DOI: [10.17586/2220-8054-2016-7-5-803-815](#).
- [145] S. Albeverio and S. Mazzucchi. “A unified approach to infinite-dimensional integration”. In: *Rev. Math. Phys.* 28.2 (2016), pp. 1650005, 43. ISSN: 0129-055X. DOI: [10.1142/S0129055X16500057](#). MR: [3484318](#).
- [146] S. Albeverio and A. K. Motovilov. “On invariant graph subspaces of a J -self-adjoint operator in the Feshbach case”. In: *Math. Notes* 100.5-6 (2016), pp. 761–773. ISSN: 0001-4346. DOI: [10.1134/S0001434616110158](#). MR: [3593109](#).

- [147] S. Albeverio. “Along paths inspired by Ludwig Streit: stochastic equations for quantum fields and related systems”. In: *Stochastic and infinite dimensional analysis*. Trends Math. Birkhäuser/Springer, [Cham], 2016, pp. 1–17. DOI: [10.1007/978-3-319-07245-6_1](https://doi.org/10.1007/978-3-319-07245-6_1). MR: [3708373](#).
- [148] S. Albeverio, L. Di Persio, E. Mastrogiacomo, and B. Smii. “A class of Lévy driven SDEs and their explicit invariant measures”. In: *Potential Anal.* 45.2 (2016), pp. 229–259. ISSN: 0926-2601. DOI: [10.1007/s11118-016-9544-3](https://doi.org/10.1007/s11118-016-9544-3). MR: [3518674](#).
- [149] S. Albeverio, S. Fassari, and F. Rinaldi. “The Hamiltonian of the harmonic oscillator with an attractive δ' -interaction centred at the origin as approximated by the one with a triple of attractive δ -interactions”. In: *J. Phys. A* 49.2 (2016), pp. 025302, 16. ISSN: 1751-8113. DOI: [10.1088/1751-8113/49/2/025302](https://doi.org/10.1088/1751-8113/49/2/025302). MR: [3436663](#).
- [150] S. Albeverio and H. Gottschalk. “Quantum fields obtained from convoluted generalized white noise never have positive metric”. In: *Lett. Math. Phys.* 106.5 (2016), pp. 575–581. ISSN: 0377-9017. DOI: [10.1007/s11005-016-0817-y](https://doi.org/10.1007/s11005-016-0817-y). MR: [3490948](#).
- [151] S. Albeverio and A. K. Motovilov. “Bounds on variation of the spectrum and spectral subspaces of a few-body Hamiltonian”. In: *Proceedings of the International Conference ‘Nuclear Theory in the Supercomputing Era — 2014’ (NTSE-2014), Khabarovsk, Russia, June 23–27, 2014*. Ed. by A. M. Shirokov and A. I. Mazur. Khabarovsk, Russia: Pacific National University, 2016, pp. 98–106.
- [152] S. Albeverio and A. N. Sengupta. “Complex phase space and Weyl’s commutation relations”. In: *Expo. Math.* 34.3 (2016), pp. 249–286. ISSN: 0723-0869. DOI: [10.1016/j.exmath.2015.12.006](https://doi.org/10.1016/j.exmath.2015.12.006). MR: [3521478](#).

2017

- [153] S. Albeverio, S. Fassari, and F. Rinaldi. “The behaviour of the three-dimensional Hamiltonian $-\Delta + \lambda[\delta(x + x_0) + \delta(x - x_0)]$ as the distance between the two centres vanishes”. In: *Nanosystems: Physics, Chemistry, Mathematics* 8.2 (2017), pp. 153–159. DOI: [10.17586/2220-8054-2017-8-2-153-159](https://doi.org/10.17586/2220-8054-2017-8-2-153-159).
- [154] S. Albeverio, B. Rüdiger, and P. Sundar. “The Enskog process”. In: *J. Stat. Phys.* 167.1 (2017), pp. 90–122. ISSN: 0022-4715. DOI: [10.1007/s10955-017-1743-9](https://doi.org/10.1007/s10955-017-1743-9). MR: [3619541](#).
- [155] S. Albeverio. “Infinite dimensional moment problems in quantum field theory and stochastic analysis”. In: *Oberwolfach Reports* 14 (2017). (Part of “Real Algebraic Geometry With a View Toward Moment Problems and Optimization”, organized by: D. Henrion, M. Infusino, S. Kuhlmann and V. Vinnikov, pp. 771–862), pp. 782–787. ISSN: 1660-8933.
- [156] S. Albeverio, C. Cacciapuoti, and M. Spreafico. “Relative partition function of Coulomb plus delta interaction”. In: *Functional analysis and operator theory for quantum physics*. EMS Ser. Congr. Rep. Eur. Math. Soc., Zürich, 2017, pp. 1–29. MR: [3677003](#).

- [157] S. Albeverio, F. C. De Vecchi, and S. Ugolini. “Entropy chaos and Bose-Einstein condensation”. In: *J. Stat. Phys.* 168.3 (2017), pp. 483–507. ISSN: 0022-4715. DOI: [10.1007/s10955-017-1820-0](https://doi.org/10.1007/s10955-017-1820-0). MR: [3670752](#).
- [158] S. Albeverio, I. Garko, M. Ibragim, and G. Torbin. “Non-normal numbers: full Hausdorff dimensionality vs zero dimensionality”. In: *Bull. Sci. Math.* 141.2 (2017), pp. 1–19. ISSN: 0007-4497. DOI: [10.1016/j.bulsci.2016.04.001](https://doi.org/10.1016/j.bulsci.2016.04.001). MR: [3614114](#).
- [159] S. Albeverio, L. Gawarecki, V. Mandrekar, B. Rüdiger, and B. Sarkar. “Itô formula for mild solutions of SPDEs with Gaussian and non-Gaussian noise and applications to stability properties”. In: *Random Oper. Stoch. Equ.* 25.2 (2017), pp. 79–105. ISSN: 0926-6364. DOI: [10.1515/rose-2017-0008](https://doi.org/10.1515/rose-2017-0008). MR: [3652290](#).
- [160] S. Albeverio and I. M. Karabash. “Resonance free regions and non-Hermitian spectral optimization for Schrödinger point interactions”. In: *Oper. Matrices* 11.4 (2017), pp. 1097–1117. ISSN: 1846-3886. DOI: [10.7153/oam-2017-11-76](https://doi.org/10.7153/oam-2017-11-76). MR: [3711435](#).
- [161] S. Albeverio, Y. Kondratiev, R. Nikiforov, and G. Torbin. “On new fractal phenomena connected with infinite linear IFS”. In: *Math. Nachr.* 290.8-9 (2017), pp. 1163–1176. ISSN: 0025-584X. DOI: [10.1002/mana.201500471](https://doi.org/10.1002/mana.201500471). MR: [3666991](#).
- [162] S. Albeverio, S. Mazzucchi, and Z. Brzeźniak. “Probabilistic integrals: mathematical aspects”. In: *Scholarpedia* 12.5 (2017), p. 10429. DOI: [10.4249/scholarpedia.10429](https://doi.org/10.4249/scholarpedia.10429).
- [163] S. Albeverio, L. di Persio, E. Mastrogiacomo, and B. Smii. “Invariant measures for SDEs driven by Lévy noise: a case study for dissipative nonlinear drift in infinite dimension”. In: *Commun. Math. Sci.* 15.4 (2017), pp. 957–983. ISSN: 1539-6746. DOI: [10.4310/CMS.2017.v15.n4.a3](https://doi.org/10.4310/CMS.2017.v15.n4.a3). MR: [3659254](#).
- [164] S. Albeverio, M. Röckner, and M. W. Yoshida. “Quantum fields”. In: *Let us use white noise*. World Sci. Publ., Hackensack, NJ, 2017, pp. 37–65. MR: [3588084](#).

2018

- [165] S. Albeverio, N. Cangiotti, and S. Mazzucchi. “Generalized Feynman path integrals and applications to higher-order heat-type equations”. In: *Expo. Math.* 36.3-4 (2018), pp. 406–429. ISSN: 0723-0869. DOI: [10.1016/j.exmath.2018.09.001](https://doi.org/10.1016/j.exmath.2018.09.001). MR: [3907341](#).
- [166] S. Albeverio, R. Hrynniv, and Y. Mykytyuk. “Inverse scattering for impedance Schrödinger operators, I. Step-like impedance lattice”. In: *J. Math. Anal. Appl.* 458.1 (2018), pp. 71–92. ISSN: 0022-247X. DOI: [10.1016/j.jmaa.2017.07.068](https://doi.org/10.1016/j.jmaa.2017.07.068). MR: [3711893](#).
- [167] S. Albeverio and R. Figari. “Quantum fields and point interactions”. In: *Rend. Mat. Appl. (7)* 39.2 (2018), pp. 161–180. ISSN: 1120-7183. MR: [3898156](#).

- [168] S. Albeverio and S. Mazzucchi. “A unified approach to infinite dimensional integrals of probabilistic and oscillatory type with applications to Feynman path integrals”. In: *Non-linear partial differential equations, mathematical physics, and stochastic analysis*. EMS Ser. Congr. Rep. Eur. Math. Soc., Zürich, 2018, pp. 37–53. MR: [3823838](#).
- [169] S. Albeverio, V. Steblovskaya, and K. Wallbaum. “The volatility target effect in structured investment products with capital protection”. In: *Review of Derivatives Research* 21.2 (July 2018), pp. 201–229. DOI: [10.1007/s11147-017-9138-2](#).
- [170] S. Albeverio and H. Tamura. “Asymptotics of the evolution semigroup associated with a scalar field in the presence of a non-linear electromagnetic field”. In: *J. Math. Phys.* 59.4 (2018), pp. 042301, 23. ISSN: 0022-2488. DOI: [10.1063/1.4996880](#). MR: [3782975](#).
- [171] S. Albeverio and M. W. Yoshida. “Hida distribution construction of indefinite metric $(\phi^p)_d$ ($d \geq 4$) quantum field theory”. In: *White noise analysis and quantum information*. Vol. 34. Lect. Notes Ser. Inst. Math. Sci. Natl. Univ. Singap. World Sci. Publ., Hackensack, NJ, 2018, pp. 21–33. MR: [3753040](#).

2019

- [172] S. Albeverio and A. K. Motovilov. “Solvability of the Operator Riccati Equation in the Feshbach Case”. In: *Mat. Zametki* 105.4 (2019). (English translation: *Mathematical Notes* 105.4 (2019), pp. 485–502. DOI: [10.1134/S0001434619030210](#)), pp. 483–506. ISSN: 0025-567X. DOI: [10.4213/mzm12061](#). MR: [3942805](#).
- [173] S. Albeverio, F. Cordoni, L. Di Persio, and G. Pellegrini. “Asymptotic expansion for some local volatility models arising in finance”. In: *Decisions in Economics and Finance* (May 2019). First online May 6, 2019. DOI: [10.1007/s10203-019-00247-w](#).
- [174] S. Albeverio and S. Rabanovich. “On a class of unitary representations of the braid groups B_3 and B_4 ”. In: *Bull. Sci. Math.* 153 (2019), pp. 35–56. ISSN: 0007-4497. DOI: [10.1016/j.bulsci.2019.01.014](#). MR: [3908261](#).
- [175] S. Albeverio and V. Steblovskaya. “Asymptotics of Gaussian integrals in infinite dimensions”. In: *Infin. Dimens. Anal. Quantum Probab. Relat. Top.* 22.1 (2019), pp. 1950004, 28. ISSN: 0219-0257. DOI: [10.1142/S0219025719500048](#). MR: [3942496](#).
- [176] S. Albeverio, V. Steblovskaya, and K. Wallbaum. “The volatility target effect in investment-linked products with embedded American-type derivatives”. In: *Investment Management and Financial Innovations* 16.3 (July 2019), pp. 18–28. DOI: [10.21511/imfi.16\(3\).2019.03](#).

Books

- [177] S. A. Albeverio, R. J. Høegh-Krohn, and S. Mazzucchi. *Mathematical theory of Feynman path integrals*. Second. Vol. 523. Lecture Notes in Mathematics. An introduction. Springer-Verlag, Berlin, 2008, pp. x+177. ISBN: 978-3-540-76954-5. DOI: [10.1007/978-3-540-76956-9](https://doi.org/10.1007/978-3-540-76956-9). MR: [2453734](#).
- [178] S. Albeverio, F. Flandoli, and Y. G. Sinai. *SPDE in hydrodynamic: recent progress and prospects*. Vol. 1942. Lecture Notes in Mathematics. Lectures given at the C.I.M.E. Summer School held in Cetraro, August 29–September 3, 2005, Edited by Giuseppe Da Prato and Michael Röckner. Springer-Verlag, Berlin; Fondazione C.I.M.E., Florence, 2008, pp. viii+166. ISBN: 978-3-540-78492-0. DOI: [10.1007/978-3-540-78493-7](https://doi.org/10.1007/978-3-540-78493-7). MR: [2459087](#).
- [179] S. Albeverio, J. E. Fenstad, R. Høegh-Krohn, and T. Lindstrøm. *Nonstandard methods in stochastic analysis and mathematical physics*. Dover Books on Mathematics. (Reprint of 1986 edition by Academic Press, Pure and Applied Mathematics 122). Dover, 2009. ISBN: 978-0-48-646899-0.
- [180] S. Albeverio, Y. Kondratiev, Y. Kozitsky, and M. Röckner. *The statistical mechanics of quantum lattice systems*. Vol. 8. EMS Tracts in Mathematics. A path integral approach. European Mathematical Society (EMS), Zürich, 2009, pp. xiv+379. ISBN: 978-3-03719-070-8. DOI: [10.4171/070](https://doi.org/10.4171/070). MR: [2548038](#).
- [181] S. Albeverio, A. Y. Khrennikov, and V. M. Shelkovich. *Theory of p-adic distributions: linear and nonlinear models*. Vol. 370. London Mathematical Society Lecture Note Series. Cambridge University Press, Cambridge, 2010, pp. xvi+351. ISBN: 978-0-521-14856-6. DOI: [10.1017/CBO9781139107167](https://doi.org/10.1017/CBO9781139107167). MR: [2641698](#).
- [182] S. Albeverio, R. Fan, and F. Herzberg. *Hyperfinite Dirichlet forms and stochastic processes*. Vol. 10. Lecture Notes of the Unione Matematica Italiana. Springer, Heidelberg; UMI, Bologna, 2011, pp. xiv+285. ISBN: 978-3-642-19658-4. DOI: [10.1007/978-3-642-19659-1](https://doi.org/10.1007/978-3-642-19659-1). MR: [2798199](#).
- [183] S. Albeverio, H. Föllmer, L. Gross, and E. Nelson. *Mathematical physics at Saint-Flour*. Probability at Saint-Flour. Reprints of selected lectures from the Summer Schools. Springer, Heidelberg, 2012, pp. viii+348. ISBN: 978-3-642-25955-5. MR: [2934655](#).

Edited Books

- [184] S. Albeverio, M. Marcolli, S. Paycha, and J. Plazas, eds. *Traces in number theory, geometry and quantum fields*. Aspects of Mathematics, E38. A publication of the Max-Planck-Institute for Mathematics, Bonn. Friedr. Vieweg & Sohn, Wiesbaden, 2008, pp. x+223. ISBN: 978-3-8348-0371-9. MR: [2494193](#).
- [185] S.-M. Fei, S. Albeverio, A. Cabello, N.-H. Jing, and D. Goswami, eds. *Quantum Information and Entanglement*. Vol. 2010. Advances in Mathematical Physics. Special issue. Hindawi, 2010.

- [186] S. Albeverio and P. Blanchard, eds. *Direction of time*. Springer, Cham, 2014, pp. xxxii+294. ISBN: 978-3-319-02797-5. DOI: [10.1007/978-3-319-02798-2](https://doi.org/10.1007/978-3-319-02798-2). MR: [3183773](#).
- [187] S. Albeverio, A. B. Cruzeiro, and D. Holm, eds. *Stochastic geometric mechanics*. Vol. 202. Springer Proceedings in Mathematics & Statistics. Papers from the Research Semester “Geometric Mechanics—Variational and Stochastic Methods” held at the Centre Interfacultaire Bernoulli (CIB), Ecole Polytechnique Fédérale de Lausanne, Lausanne, January–June, 2015. Springer, Cham, 2017, pp. xvi+265. ISBN: 978-3-319-63453-1. MR: [3747640](#).

Articles and books accepted for publication

- [188] S. Albeverio and I. M. Karabash. “Generic asymptotics of resonance counting function for Schrödinger point interactions”. In: *Memorial volume dedicated to B. S. Pavlov*. Ed. by P. Kurasov, A. Laptev, S. Naboko, and B. Simon. Operator Theory: Advances and Applications. Birkhäuser, Mar. 16, 2018. arXiv: <http://arxiv.org/abs/1803.06039v2> [math.SP].
- [189] S. Albeverio and S. Kusuoka. “The invariant measure and the flow associated to the Φ_3^4 -quantum field model”. In: *Annali della Scuola Normale Superiore, Pisa* (2018). arXiv: <http://arxiv.org/abs/1711.07108v3> [math.PR].
- [190] S. Albeverio and B. Smii. “Borel summation of the small time expansion of some SDE’s driven by Gaussian white noise”. In: *Asymptotic Analysis* (Oct. 31, 2018). arXiv: <http://arxiv.org/abs/1810.13158v3> [math.PR].
- [191] S. Albeverio. “Mathematical aspects of Feynman path integrals, divergences, quantum fields and diagrams, and some more general reflections”. In: *Proceedings of the conference “Quand la forme devient substance” (Paris, January 2018)*. Ed. by L. Boi et al. Birkhäuser, Springer, 2019.
- [192] S. Albeverio, P. Giordano, and A. Varcher, eds. *Metodi e modelli matematici per le dinamiche urbane*. (To be published in 2019). Milano: Springer Italia, 2019.
- [193] S. Albeverio and S. Mazzucchi. “Infinite dimensional integrals and partial differential equations for stochastic and quantum phenomena”. In: *Geometric mechanics* 11.2 (2019), pp. 123–137.

Articles and books submitted for publication

- [194] S. Albeverio, F. C. De Vecchi, and M. Gubinelli. “Elliptic stochastic quantization”. In: *The Annals of Probability* (Dec. 11, 2018). arXiv: <http://arxiv.org/abs/1812.04422v1> [math.PR].
- [195] S. Albeverio, F. C. De Vecchi, P. Morando, and S. Ugolini. “Random transformations and invariance of semimartingales on Lie groups”. In: *Journal of Theoretical Probability* (Dec. 22, 2018). arXiv: <http://arxiv.org/abs/1812.11066v1> [math.PR].

- [196] S. Albeverio and I. M. Karabash. “On the multilevel internal structure of the asymptotic distribution of resonances”. In: (July 8, 2018). arXiv: <http://arxiv.org/abs/1807.02889v2> [math-ph].
- [197] S. Albeverio and A. Sengupta. *Field Theory: from classical to quantum – a mathematical approach*. Invited, to be submitted 2019.