

LIST OF PUBLICATIONS
In the reverse chronological order

Sergey Bezuglyi

Submitted and Accepted Papers:

- [4] *Harmonic analysis on graphs via Bratteli diagrams and path-space measures*, arXiv:2007.15566, 2020, submitted (with P. Jorgensen).
- [3] *New Hilbert space tools of graph Laplacians and Markov processes*, preprint, 2020, submitted (joint with P. Jorgensen).
- [2] *Cohomology of hyperfinite Borel actions*, accepted for publication in “Groups , Geometry, and Dynamics” (with S. Sanadhya).
- [1] *Symmetric measures, continuous networks, and dynamics*, preprint, 2019, accepted for publication in “Operator Theory: Advances and Applications” (joint with P. Jorgensen).

Books:

- [2] *Transfer operators, endomorphisms, and measurable partitions*, SLNM Springer, 2018, ix + 160 pp. (with P. Jorgensen).
- [1] *Topics in Dynamics and Ergodic Theory*, London Math. Soc. Lecture Note Ser., 310, Cambridge Univ. Press, Cambridge, 2003, 275p (with S. Kolyada, Editors).

Published Referred Papers:

- [52] *Harmonic analysis invariants for infinite graphs via operators and algorithms*, “J. Fourier Anal. Appl.” v. 27 (2021), no. 2, Paper No. 34, 46 pp. (with P. Jorgensen).
- [51] *C^* -algebras of a Cantor system with finitely many minimal subsets: structures, K -theories, and the index map*, “Ergodic Theory and Dyn. Systems”, v. 41 (2021), no. 5, 1296–1341 (with Zhuang Niu, Wei Sun).
- [50] *Exact number of ergodic invariant measures for Bratteli diagrams*, “J. Math. Anal. Appl.”, v. 480 (2019), no. 2, 1-49 (with O. Karpel, J. Kwiatkowski).
- [49] *Invariant measures for Cantor dynamical systems*, Dynamics: topology and numbers, “Contemp. Math.”, v. 744, 2019, 259–295 (with O. Karpel).
- [48] *Graph Laplace and Markov operators on a measure space*, Linear systems, signal processing and hypercomplex analysis, 67–138, Oper. Theory Adv. Appl., 275, Linear Oper. Linear Syst., 2019 (with P. Jorgensen)
- [47] *Monopoles, dipoles, and harmonic functions on Bratteli diagram*, “Acta Applic. Math.”, 159 (2019), 169–224 (with P. Jorgensen).

- [46] *Subdiagrams and invariant measures on Bratteli diagrams*, “Ergodic Theory Dyn. Systems”, v.37, 2017, 2417 - 2452 (with M. Adamska, O. Karpel, and J. Kwiatkowski).
- [45] *Orders that yield homeomorphism on Bratteli diagrams*, “Dynam. Systems: An International Journal”, v.32, 2017, 249 - 282 (2016) (with R. Yassawi).
- [44] *Bratteli diagrams: structure, measures, dynamics*, “Contemp. Math.” 669, 2016, 1- 36 (with O. Karpel).
- [43] *Representations of Cuntz-Krieger relations, dynamics on Bratteli diagrams, and path-space measures*, “Contemp. Math.” v. 650, 2015, 57 - 88 (with P. Jorgensen).
- [42] *Subdiagrams of Bratteli diagrams supporting finite invariant measures*, “J. Math. Physics, Analysis, Geometry” 11, 2015, 3 - 17 (with O. Karpel, J. Kwiatkowski).
- [41] *Measures on Cantor sets: the good, the ugly, the bad*, “Trans. Amer. Math. Soc”, 366, 2014, 6247 - 6311 (with D. Handelman).
- [40] *Orbit equivalent substitution dynamical systems and complexity*, “Proc. Amer. Math. Soc.”, 142, 2014, 4155 - 4169 (with O. Karpel).
- [39] *Perfect orderings on Bratteli diagrams*, “Canad. J. Math.”, 66 (1), 2014, 57 - 101 (with J. Kwiatkowski and R. Yassawi).
- [38] *Finite rank Bratteli diagrams: structure of invariant measures*, “Trans. Amer. Math. Soc”, 365, 2013, no. 5, 2637 - 2679 (with J. Kwiatkowski, K. Medynets, and B. Solomyak).
- [37] *Homeomorphic measures on stationary Bratteli diagrams*, “J. Funct. Anal.”, 261, 2011, 3519 - 3548 (with O. Karpel).
- [36] *Invariant measures on stationary Bratteli diagrams*, “Erg. Theory Dyn. Syst.”, 2010, 30, 973 -1007 (with J. Kwiatkowski, K. Medynets, and B. Solomyak).
- [35] *Aperiodic substitutional systems and their Bratteli diagrams*, “Erg. Theory Dyn. Syst.” 29, 2009, 37 - 72 (with J. Kwiatkowski and K. Medynets).
- [34] *Full groups, flip conjugacy, and orbit equivalence of Cantor minimal systems*, “Coll. Math.” 110, 2008, 409 - 429 (with K. Medynets).
- [33] *Topologies on the group of homeomorphisms of a Cantor set*, “Topol. Methods in Nonlinear Analysis” 27, 2006, 299 - 331 (with A.H. Dooley, J. Kwiatkowski).
- [32] *Topologies on the group of Borel automorphisms of a standard Borel space*, “Topol. Methods in Nonlinear Analysis”, 27, 2006, 333 - 385 (with A.H. Dooley, J. Kwiatkowski).
- [31] *Approximation in ergodic theory, Borel, and Cantor dynamics*, “Contemporary Math.”, v. 385, 2005, 39 - 64 (with J. Kwiatkowski, K. Medynets).

- [30] *The Rokhlin lemma for homeomorphisms of a Cantor set*, “Proceedings of AMS”, 134, 2005, 2957 - 2964 (with A.H. Dooley, K. Medynets).
- [29] *Smooth automorphisms and path-connectedness in Borel dynamics*, “Indag. Mathem., N.S.” 15, 2004, 453 - 468 (with K. Medynets)
- [28] *Isomorphic actions of group extensions on a measure space*, “Indag. Mathem., N.S.,” 15, 2004, 167 - 188 (with K. Dajani, A.H. Dooley, T. Hamachi) .
- [27] *Topologies on full groups and normalizers of Cantor minimal systems*, “Math. Physics, Analysis, Geometry”, 9, 2002, No.3, 1 - 10 (with J. Kwiatkowski).
- [26] *The topological full group of a Cantor minimal system is dense in the full group*, “Topol. Methods in Nonlinear Analysis” 16, 2000, 371 - 397 (with J. Kwiatkowski).
- [25] *Groups of automorphisms of a measure space and weak equivalence of cocycles*, Descriptive set theory and dynamical systems (Marseille-Luminy, 1996), 59 - 86, London Math. Soc. Lecture Note Ser., 277, Cambridge Univ. Press, Cambridge, 2000.
- [24] *H-cocycles and ergodic actions of group extensions*, “Dop. NAN Ukraine”, No. 9, 1999, 21 - 26.
- [23] *Dynamical entropy of Bogoliubov actions of free abelian group on the CAR-algebra*, “Erg. Theory Dyn. Syst.”, 17, 1997, 757 - 782 (with V.Ya. Golodets).
- [22] *Dynamical entropy of group actions on the CAR-algebra*, In: Proceedings of the Conference on Methods in Mathematical Physics, Hadronic Press, 1997 (with V.Ya. Golodets).
- [21] *On recurrence and superrecurrence of H-cocycles*, “Math. Physics, Analysis, Geometry”, 3, 1996, 3 -17.
- [20] *On cocycles of ergodic dynamical systems and automorphisms compatible with them*, “Adv. Soviet Math.”, 19, 1994, 73 - 96 (with V.Ya. Golodets and A.I. Danilenko).
- [19] *Outer conjugacy of the fields of groups of automorphisms, Connes-Krieger theorem for the actions of groupoids and induced actions*, In: “Operator Algebras and Operator Theory”, Pitman Research Notes in Math. Series, no. 271, 1992, 37 - 45.
- [18] *T-set for cocycles* (Russian), In: “Dynamical systems and complex analysis”, Naukova Dumka, Kiev, 1992, 169 - 173.
- [17] *Weak equivalence and the structures of cocycles of an ergodic automorphism*, “Publ. RIMS”, Kyoto Univ., 27, 1991, 577 - 625 (with V.Ya. Golodets).
- [16] *Type III₀ transformations of measure space and outer conjugacy of countable amenable groups of automorphisms*, “J. Operator Theory”, 21, 1989, 3 - 40 (with V.Ya. Golodets).
- [15] *Extension of 1-cocycles of dynamical systems onto the elements of normalizer* (Russian), DAN Ukr. SSR, ser.A, No.2, 1988, 3 - 5 (with V.Ya. Golodets and A.I. Danilenko).

- [14] *Outer conjugacy of automorphisms from the normalizer of flow* (Russian), In: “Operators in Functional Spaces and Problems of Function Theory”, Naukova Dumka, Kiev, 1987, 66 - 73.
- [13] *Complete system of invariants of outer conjugacy of the actions of countable amenable groups* (Russian), In: “Math. Physics and Funct. Analysis”, Naukova Dumka, Kiev, 1986, 59 - 63.
- [12] *Outer conjugacy of actions of countable amenable groups on a measure space* (Russian), “Izvestiya AN SSSR, ser. mat.”, 50, 1986, 643 - 660 (with V.Ya. Golodets).
- [11] *Groups of measure space transformations and invariants of outer conjugacy for automorphisms from normalizers of type III_0 full groups*, “J. Funct. Analysis”, 60, 1985, 341 - 369 (with V.Ya. Golodets).
- [10] *Conditions of hyperfiniteness of automorphism groups* (Russian), “Ukr. Matemat. Zhurnal”, 36, 1984, 759 - 761.
- [9] *Hyperfiniteness and II_1 actions of non-amenable groups*, “J. Funct. Analysis”, 40, 1981, 30 - 41 (with V.Ya. Golodets).
- [8] *Type III_0 groups and conditions of hyperfiniteness of automorphism groups of a measure space* (Russian), Published at VINITI 15.04.81, No. 1677-81, 30p.
- [7] *Non-amenable groups and their actions on measure spaces* (Russian), In: “Theory of Operators on Functional Spaces and Its Applications”, Naukova Dumka, Kiev, 1981, 10 - 21 (with V.Ya. Golodets).
- [6] *On groups of measure space automorphisms and outer conjugacy of transformations from normalizers of type III full groups* (Russian), Published at VINITI, 25.03.81, No. 1343 - 81, 81p. (with V.Ya. Golodets).
- [5] *Certain conditions of hyperfiniteness of groups of automorphisms of a measure space* (Russian), Published at VINITI, 19.02.81, No.776-81, 25p.
- [4] *Topological properties of full groups of a measure space* (Russian), “Sibirskii Matem. Zhurnal”, 21, 1980, 3 - 13 (with V.Ya. Golodets).
- [3] *Groups of measure space transformations and invariants of outer conjugacy for automorphisms from normalizers of type III full groups* (Russian), DAN SSSR, 254, 1980, 11 - 14 (with V.Ya. Golodets).
- [2] *Some properties of full groups of automorphisms of a measure space* (Russian), In: “Studies on Operator Theory and Its Applications”, Naukova Dumka, Kiev, 1979, 23 - 25 (with V.Ya. Golodets).
- [1] *Topologies on full groups of automorphisms of a measure space* (Russian), In: “Theory and application of differential equations and algebra”, Naukova Dumka, Kiev, 1978, 3 - 6.

Conference Papers:

- [3] *Ergodic actions of group extensions and cocycles*, Conference on Ergodic Theory and Dynamical Systems, Warsaw, 1995.
- [2] *Extensions of 1-cocycles of dynamical systems to normalizers*, (Russian), XII School on Operators of Function Spaces, 1987 (with A.I. Danilenko, V.Ya. Golodets).
- [1] *On outer conjugacy of countable amenable group actions on measure spaces*, VI International Symposium on Information Theory, 1984, Tashkent (with V.Ya. Golodets).

Preprints and other publications

- [18] *Markov operators generated by symmetric measures*, arXiv:1812.00081 (with P. Jorgensen)
- [17] *Laplace operators in finite energy and dissipation spaces*, arXiv:1903.09572 (with P. Jorgensen).
- [16] *Transformation groups, ergodic theory and dynamical systems*, Technical report, 2011 - 2015.
- [15] *Homeomorphisms of a Cantor space with finitely many minimal components*, preprint (2015) (with Zhuang Niu and Wei Sun).
- [14] *Cantor and Borel dynamics*, Technical report, 2006 - 2010.
- [13] *Valentin Yakovlevich Golodets (on the occasion of his seventieth birthday)*. (Russian), "Uspekhi Mat. Nauk," 62, 2007, no. 6, 191 - 192.
- [12] *Dynamical systems on measurable, Borel, and Cantor spaces*, Doctor Sci. in Mathematics Thesis, 2006, 355 pp.
- [11] *Borel and Cantor dynamics'*, Lecture notes, Kharkiv National University, 2005, 105pp.
- [10] *Operators generated by dynamical systems* Technical report, 2001 - 2005.
- [9] *Entropy of actions of the rational group on the CAR-algebra*, Preprint, Kharkiv, 1996, 26pp. (with V.Ya. Golodets).
- [8] *Weak equivalence of cocycles of an ergodic automorphism and the Connes-Krieger theorem for actions of discrete non-principal groupoids*, Preprint, Heidelberg University, 1992, 89pp. (with V.Ya. Golodets).
- [7] *A representation of nonsingular automorphisms of a measure space as a product of periodic transformations*, Preprint, Leipzig University, 1990, 12pp.
- [6] *Cocycles of ergodic hyperfinite dynamical systems and transformations compatible with cocycles*, Preprint 28 - 89 FTINT AN USSR (Russian), 1989, 30pp. (with A.I. Danilenko and V.Ya. Golodets).

- [5] *On weak equivalence and structure of cocycles of ergodic automorphisms. Part II*, Preprint 16 - 88 FTINT AN USSR (Russian), 1988, 38pp. (with V.Ya. Golodets).
- [4] *On weak equivalence and structure of cocycles of ergodic automorphisms. Part I*, Preprint 15 - 88 FTINT AN USSR (Russian), 1988, 44pp. (with V.Ya. Golodets).
- [3] *Transformations of type III_0 and outer conjugacy of actions of discrete amenable groups*, Preprint 28 - 85 FTINT AN USSR (Russian), 1985, 38pp. (with V.Ya. Golodets).
- [2] *On outer conjugacy of actions of countable amenable group on a measure space*, Preprint No. 2 - 84 FTINT AN USSR (Russian), 1984, 38pp. (with V.Ya. Golodets).
- [1] *Full groups of automorphisms of a measure space and their normalizers*, PhD Thesis, 1981, 147pp.