

## List of Publications

### Books

2. Bezuglyi, S., Jorgensen, P. E.T. (2018). *Transfer operators, endomorphisms, and measurable partitions* (vol. 2217, pp. x + 160). Lecture Notes in Mathematics, 2217. Springer.
1. (2003). S. Bezuglyi & S. Kolyada (Eds.), *Topics in dynamics and ergodic theory*. Cambridge University Press.

### Submitted papers:

55. Bezuglyi, S., Jorgensen, P., Karpel, O., Sanadhya, S., *Bratteli diagrams in Borel dynamics*. ArXiv: 2212.13803.
54. Bezuglyi, S., Jorgensen, P., Sanadhya, S., *Invariant measures and generalized Bratteli diagrams on infinite alphabets*, ArXiv: 2203.14127.

### Refereed Articles (published and accepted for publication):

53. Bezuglyi, S., Jorgensen, P., Measurable multiresolution systems, endomorphisms, and representations of Cuntz relations. ArXiv 2304.14558 (accepted).
52. Bezuglyi, S., Jorgensen, P., IFS measures on generalized Bratteli diagrams, ArXiv: 2210.14059 (accepted).
51. Bezuglyi, S., Jorgensen, P., New Hilbert space tools of graph Laplacians and Markov processes, preprint, 2022 (accepted).
50. Bezuglyi, S., Jorgensen, P., Harmonic analysis on graphs via Bratteli diagrams and path-space measures. "Dissertationes Math.", 574 (2022), 1 – 74.
49. Bezuglyi, S., Jorgensen, P. Symmetric measures, continuous networks, and dynamics, "Operator Theory: Advances and Applications", 286 (2021), 139 – 197.
48. Bezuglyi, S., Sanadhya, S., Cohomology of hyperfinite Borel actions. "Groups, Geometry, and Dynamics", 15 (2021), no. 4, 1363- 1398.
47. Bezuglyi, S., Jorgensen, P. Harmonic analysis invariants for infinite graphs via operators and algorithms, "J. Fourier Anal. Appl." V. 27 (2021), no. 2, 46 pp.
46. Bezuglyi, S., Niu, Z., Sun, W.  $C^*$ -algebras of a Cantor system with infinitely many minimal subsets: structures, K-theories, and the index map, "Ergodic Theory and Dyn. Systems", v. 41 (2021), no. 5, 1296-1341.
45. Bezuglyi, S., Jorgensen, P. Graph Laplace and Markov operators on a measure space, in Linear systems, signal processing and hypercomplex analysis, 67 – 138, Oper. Theory Adv. Appl., 275, Linear Oper. Linear Syst., 2019.
44. Bezuglyi, S., Karpel, O., Kwiatkowski, J. Exact number of ergodic invariant measures for Bratteli diagrams, "J. Math. Anal. Appl.", v. 480 (2019), no. 2, 1-49.
43. Bezuglyi, S., Karpel, O. Invariant measures for Cantor dynamical systems. *Contemporary Mathematics*. v. 744, 2019, 259 – 295.
42. Bezuglyi, S., Jorgensen, P. E.T. (2019). Monopoles, dipoles, and harmonic functions on Bratteli diagram. *Acta Applicandae Mathematicae*, 159, 169–224.
41. Adamska, M., Bezuglyi, S., Karpel, O., Kwiatkowski, J., Subdiagrams and invariant measures on Bratteli diagrams. *Ergodic Theory and Dynamical Systems/Cambridge University Press*, 37(8), 2017, 1-36.
40. Bezuglyi, S., Yassawi, R. (2017). Orders that yield homeomorphisms on Bratteli diagrams. *Dynamical Systems*, 32(2), 249-282.
39. Bezuglyi, S., Karpel, O. (2016). Bratteli diagrams: structure, measures, dynamics. *Contemporary Mathematics/AMS*, 669, 1 – 36.
38. Bezuglyi, S., Jorgensen, P. (2015). Representations of Cuntz-Krieger relations, dynamics on Bratteli diagrams, and path-space measures. *Contemporary Mathematics / AMS* /, 650, 57 – 88.
37. Bezuglyi, S., Karpel, O., Kwiatkowski, J. (2015). Subdiagrams of Bratteli diagrams supporting finite invariant measures. *Journal of Mathematical Physics, Analysis, Geometry / Academy of Sciences of Ukraine* /, 11(3), 3 – 17.

36. Bezuglyi, S., Handelmann, D. (2014). Measures on Cantor sets: the good, the ugly, the bad. *Trans. Amer. Math. Soc. / AMS /*, 366, 6247 – 6311.
35. Bezuglyi, S., Karpel, O. (2014). Orbit equivalent substitution dynamical systems and complexity. *Proc. Amer. Math. Soc. / AMS /*, 142, 4155 – 4169.
34. Bezuglyi, S., Kwiatkowski, J., Yassawi, R. (2014). Perfect orderings on finite rank Bratteli diagrams. *Canad. J. Math.*, 66(1), 57–101.
33. Bezuglyi, S., Medynets, K., Kwiatkowski, J., Solomyak, B. (2013). Finite rank Bratteli diagrams: structure of invariant measures. *Transactions of American Mathematical Society / AMS /*, 365(5), 2637 – 2679.
32. Bezuglyi, S., Karpel, O. (2011). Homeomorphic measures on stationary Bratteli diagrams. *Journal Functional Analysis*, 261, 3519 - 3548.
31. Bezuglyi, S., Kwiatkowski, J., Medynets, K. (2010). Aperiodic substitutional systems and their Bratteli diagrams. *Erg. Theory Dyn. Syst. / Cambridge University Press /*, 29, 37 - 72.
30. Bezuglyi, S., Kwiatkowski, J., Medynets, K., Solomyak, B. (2010). Invariant measures on stationary Bratteli diagrams. *Erg. Theory Dyn. Syst. / Cambridge University Press /*, 30, 973 - 1007.
29. Bezuglyi, S., Kwiatkowski, J., Medynets, K. (2009). Aperiodic substitution systems and their Bratteli diagrams. *Ergodic Theory Dynam. Systems*, 29(1), 37–72.
28. Bezuglyi, S., Medynets, K. (2008). Full groups, flip conjugacy, and orbit equivalence of Cantor minimal systems. *Colloquium Mathematicum*, 110(2), 409-429.
27. Bezuglyi, S., Dooley, A. H., Kwiatkowski, J. (2006). Topologies on the group of Borel automorphisms of a standard Borel space. *Topol. Methods Nonlinear Anal.*, 27(2), 333–385.
26. Bezuglyi, S., Dooley, A. H., Kwiatkowski, J. (2006). Topologies on the group of homeomorphisms of a Cantor set. *Topological Methods in Nonlinear Analysis*, 27(2), 299–331.
25. Bezuglyi, S., Kwiatkowski, J., Medynets, K. (2005). Approximation in ergodic theory, Borel, and Cantor dynamics. *Amer. Math. Soc., Providence, RI*, 385, 39–64.
24. Bezuglyi, S., Dooley, A. H., Medynets, K. (2005). The Rokhlin lemma for homeomorphisms of a Cantor set. *Proceedings of the American Mathematical Society / AMS /*, 133(10), 2957-2965.
23. Bezuglyi, S., Medynets, K. (2004). Smooth automorphisms and path-connectedness in Borel dynamics. *Indagationes Mathematicae*, 15(4), 453-468.
22. Bezuglyi, S., Dajani, K., Dooley, A. H., Hamachi, T. (2004). Isomorphic actions of group extensions on a measure space. *Indagationes Mathematicae*, 15(2), 167-188.
21. Bezuglyi, S., Kwiatkowski, J. (2002). The topological full group of a Cantor minimal system is dense in the full group. *Topological Methods in Nonlinear Analysis*, 16(2), 371.
20. Bezuglyi, S. I., Kwiatkowski, J. (2002). Topologies on full groups and normalizers of Cantor minimal systems. *Journal of Mathematical Physics, Analysis, and Geometry*, 9(3), 455–464.
19. Bezuglyi, S., Kwiatkowski, J. (2002). Topologies on full groups and normalizers of Cantor minimal systems. *Mat. Fiz. Anal. Geom.*, 9(3), 455–464.
18. Bezuglyi, S. I. (1999). H-cocycles and ergodic actions of group extensions. *Dopov. Nats. Akad. Nauk Ukr. Mat. Prirodozn. Tekh. Nauki*, (9), 32–36.
17. Bezuglyi, S. I., Golodets, V. Y. (1997). Dynamical entropy for Bogoliubov actions of free abelian groups on the CAR-algebra. *Ergodic Theory and Dynamical Systems*, 17(04), 757–782.
16. Bezuglyi, S. I. (1996). On recurrence and superrecurrence of H-cocycles. *Mat. Fiz. Anal. Geom.*, 3(1-2), 3–17.
15. Bezuglyi, S. I., Golodets, V. Y. (1991). Weak equivalence and the structures of cocycles of an ergodic automorphism. *Publ. Res. Inst. Math. Sci.*, 27(4), 577–625.
14. Bezuglyi, S. I., Golodets, V. Y. (1991). Weak equivalence and the structures of cocycles of an ergodic automorphism. *Publications of the Research Institute for Mathematical Sciences*, 27(4), 577–625.
13. Bezuglyi, S. I., Golodets, V. Y. (1989). Type III<sub>0</sub> transformations of measure space and outer conjugacy of countable amenable groups of automorphisms. *J. Operator Theory*, 21(1), 3–40.
12. Bezuglyi, S. I., Golodets, V. Y., Danilenko, A. I. (1988). Extension of the 1-cocycles of dynamical systems onto the elements of the normalizer. *Dokl. Akad. Nauk Ukrain. SSR Ser. A*, (2), 3–5, 88.
11. Bezuglyi, S. I. (1987). Outer conjugacy of automorphisms of the normalizer of a flow. “*Naukova Dumka*”, Kiev, 66–73, 145.
10. Bezuglyi, S. I., Golodets, V. Y. (1986). Outer conjugacy of actions of countable amenable groups on a space with measure. *Izv. Akad. Nauk SSSR Ser. Mat.*, 50(4), 643–660, 877.
9. Bezuglyi, S. I. (1986). Outer conjugation of the actions of countable amenable groups. “*Naukova Dumka*”, Kiev, 59–63, 145.

8. Bezuglyi, S. I., Golodets, V. Y. (1985). Groups of measure space transformations and invariants of outer conjugation for automorphisms from normalizers of type III full groups. *J. Funct. Anal.*, 60(3), 341–369.
7. Bezuglyi, S., Golodets, V. Y. (1985). Groups of measure space transformations and invariants of outer conjugation for automorphisms from normalizers of type III full groups. *Journal of functional analysis*, 60(3), 341–369.
6. Bezuglyi, S. I. (1984). Some conditions of approximability of groups of automorphisms of a space with a measure. *Ukrain. Mat. Zh.*, 36(6), 759–761.
5. Bezuglyi, S. I., Golodets, V. Y. (1981). Hyperfinite and II<sub>1</sub> actions of non-amenable groups. *J. Funct. Anal.*, 40(1), 30–44.
4. Bezuglyi, S. I., Golodets, V. J. (1980). Groups of transformations of a space with measure and invariants of outer conjugation for automorphisms from normalizers of complete groups of type III. *Dokl. Akad. Nauk SSSR*, 254(1), 11–14.
3. Bezuglyi, S., Golodets, V. Y. (1980). Topological properties of complete groups of automorphisms of a measure space. *Siberian Mathematical Journal*, 21(2), 147–155.
2. Bezuglyi, S. I., Golodets, V. J. (1979). Some properties of complete groups of automorphisms of Lebesgue spaces. “*Naukova Dumka*”, Kiev, 3–13, 176.
1. Bezuglyi, S. I., Golodets, V. J. (1978). Topological properties of complete groups of automorphisms of a measure space. “*Naukova Dumka*”, Kiev, 23–25, 259.

### ***Refereed Book Chapters***

5. Bezuglyi, S. (2000). Groups of automorphisms of a measure space and weak equivalence of cocycles. *Descriptive set theory and dynamical systems (Marseille-Luminy, 1996)* (vol. 277, pp. 59–86). Cambridge Univ. Press, Cambridge.
4. Bezuglyi, S., Danilenko, A. I., Golodets, V. (1994). On cocycles of ergodic dynamical systems and automorphisms compatible with them. *Spectral operator theory and related topics* (vol. 19, pp. 73–96). Amer. Math. Soc., Providence, RI.
3. Bezuglyi, S. I. (1992). Outer conjugacy of the fields of groups of automorphisms and the Connes-Krieger theorem for the actions of groupoids and induced actions. *Operator algebras and operator theory (Craiova, 1989)* (vol. 271, pp. 37–45). Longman Sci. Tech., Harlow.
2. Bezuglyi, S. I. (1992). T-set for cocycles. *Dynamical systems and complex analysis (Russian)* (pp. 169–173). “*Naukova Dumka*”, Kiev.
1. Bezuglyi, S. I., Golodets, V. Y. (1981). Nonamenable groups and their ergodic actions in spaces with a measure. *Theory of operators in function spaces and its applications* (pp. 10–21, 187). “*Naukova Dumka*”, Kiev.

### ***Papers in Progress***

2. Bezuglyi, S., Jorgensen, P., Karpel, O., *Harmonic functions on measurable Bratteli diagrams*. Preprint.
1. Bezuglyi, S., Jorgensen, P., Karpel, O., Sanadhya, S., *Extension of measures on the path space Bratteli diagrams*. Preprint.

### ***Non-refereed articles, preprints, lecture notes, and other publications***

18. Bezuglyi, S. *Transformation groups, ergodic theory and dynamical systems*, Technical report, FTINT AN Ukraine, 2011 -2015.
17. Bezuglyi, S. *Cantor and Borel dynamics*, Technical report, FTINT AN Ukraine, 2006 - 2010.
16. Bezuglyi, S., et al. (2007). Valentin Yakovlevich Golodets (on his seventieth birthday). *Zh. Mat. Fiz. Anal. Geom.*, 3(2), 277–279.
15. Bezuglyi, S. et al. Valentin Yakovlevich Golodets (on the occasion of his seventieth birthday) (Russian), “*Uspekhi Mat. Nauk*,” v. 62, 2007, no. 6, 191 - 192.
14. Bezuglyi, S. *Dynamical systems on measurable, Borel, and Cantor spaces*, Doctor Sci. in Mathematics Thesis, 2006, 355 pp.
13. Bezuglyi, S. *Borel and Cantor dynamics*, Lecture notes, Kharkiv National University, 2005, 105pp.
12. Bezuglyi, S. *Operators generated by dynamical systems*. Technical report, FTINT AN Ukraine,

- 2001 - 2005.
11. Bezuglyi, S., Golodets, V. *Entropy of actions of the rational group on the CAR-algebra*, Preprint, Kharkiv, 1996, 26pp.
  10. Bezuglyi, S., Golodets, V. *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.
  9. Bezuglyi, S. *A representation of nonsingular automorphisms of a measure space as a product of periodic transformations*, Preprint, Leipzig University, 1990, 12pp.
  8. Bezuglyi, S., Danilenko, A., Golodets V. *Cocycles of ergodic hyperfinite dynamical systems and transformations compatible with cocycles*, Preprint 28 - 89 FTINT AN USSR (Russian), 1989, 30pp.
  7. Bezuglyi, S., Golodets V. *On weak equivalence and structure of cocycles of ergodic automorphisms. Part II*. Preprint 16 - 88 FTINT AN USSR (Russian), 1989, 38pp.
  6. Bezuglyi, S., Golodets, V. *On groups of measure space automorphisms and outer conjugacy of transformations from normalizers of type III full groups*, 1988, No. 1343 - 81, pp. 1 - 81.
  5. Bezuglyi, S., Golodets V. *On weak equivalence and structure of cocycles of ergodic automorphisms. Part I*, Preprint 15 - 88 FTINT AN USSR (Russian), 1988, 44pp.
  4. Bezuglyi, S., Golodets V. *Transformations of type III<sub>0</sub> and outer conjugacy of actions of discrete amenable groups*, Preprint 28 - 85 FTINT AN USSR (Russian), 1985, 38pp.
  3. Bezuglyi, S., Golodets V. *On outer conjugacy of actions of countable amenable group on a measure space*, Preprint, No. 2 - 84, FTINT AN USSR (Russian), 1984, 38pp.
  2. Bezuglyi, S. *Full groups of automorphisms of a measure space and their normalizers*, PhD Thesis, 1981, 147pp.
  1. Bezuglyi, S. *Certain conditions of hyperfiniteness of groups of automorphisms of a measure space*, 1981, No.776-81, pp. 1 - 25.