

Curriculum Vitae - October, 2018

ALEXANDER YU. OLSHANSKIY

Department of Mathematics
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EDUCATION AND DEGREES:

Undergraduate: Moscow State University (1963-1968);
Graduate: Moscow State University (1968-1970);
B.S. in Mathematics, 1968; Ph.D. in Mathematics, 1971;
Doctor of Science in Mathematics (Habilitation), 1979.

POSITIONS HELD:

Assistant Professor of Mathematics, Moscow State University, 1970-1977
Associate Professor of Mathematics, Moscow State University, 1978-1984
Professor of Mathematics, Moscow State University, 1985-
Centennial Professor of Mathematics, Vanderbilt University, 1999-present

AWARDS, GRANTS AND HONORS:

Moscow Mathematical Society Prize winner, 1970
Invited speaker of International Congress of Mathematics, 1982
Malcev prize of the Russian Academy of Sciences for the series of papers
in geometric and combinatorial group theory, 2000
Fellow of the American Mathematical Society, class 2015.
Kargapolov Prize "for outstanding contributions to group theory" at the
3rd International Algebra Conference, Krasnoyarsk, Russia, 1993
Honorary Badge, Seminar "Algebra and Logic," Novosibirsk.
G.A. Miller Visiting Professor, University of Illinois at Urbana Cham-
paign, March-April 1995
Russian Federation Presidential Award 1993-1996
INTAS Award 1994-1998
Soros Professorship, 1995-96 and 1998
Russian Fund (awarded to outstanding research groups), 1996-1997
INTAS grant 99-1224, 2000-2003 NSF Focus Research Grant, DMS-
0455881, 2005-2008.

Russian Fund for Fundamental Research, 1996-1998, 1999-2001; grant 02-01-00170, 2002-2004; grant 05-01-00895, 2005-2007; grant 08-01-00573, 2008-2010; grant 11-01-00945, 2011-2013; grant 15-01-05823, 2015-2017.

NSF research grants (with Mark Sapir): DMS 0072307, 2000- 2003; DMS-0245600, 2003-2006; DMS 0700811, 2007 - 2012; DMS 1161294, 2012-2015, DMS-1500180, 2015-2018.

EDITORIAL BOARDS:

Communications in Algebra
International Journal of Algebra and Computation
Journal of Group Theory
Algebra and Discrete Mathematics
Electronic Research Announcements in Mathematical Sciences

Ph.D. STUDENTS:

A. N. Fedorov, T. V. Dubrovina, G. S. Derjabina, V. S. Atabekian, S. V. Ivanov, V. S. Guba, K. I. Lossov, V. N. Obraztsov, A.M. Storozhev, Nguen Hung Shon, V. G. Mikaelian, A. A. Klyachko, Yu. S. Semenov, K. V. Mikhajlovskii, A. Vdovina, G.Z. Arjantseva, N.V. Bezverhniy, D.V. Osin, P.A. Kozhevnikov, A. E. Pankratjev, Ashot Minasyan, Dmitry Sonkin, Alexey Muranov, Maria Milentyeva, O. V. Kulikova, Tara Davis, Vladimir Chaynikov, Nicholas Boatman, Arman Darbinyan.

Currently A.Yu.Olshanskii advises 2 graduate student of the Vanderbilt.

PLENARY and INVITED 1-HOUR TALKS:

International Congress of Mathematics, 1982
At seven All-Union Algebra Conferences and five other All-Union Conferences (USSR, 1969-1990)
Algebra Conference, Halle (Germany), 1986
International Conference "Groups-St Andrews-1989" (four lectures), UK, August 1989.
International Conference on Group Theory, Debrecen (Hungary), 1990
Fifth Congress of Vietnamese Mathematicians, 1990
Workshop in Geometric and Combinatorial Methods in Group Theory, Edinburgh, UK, 1993
Group Theory Conference, Spetses, Greece, 1993
Group Theory and Topology Workshop, Albany, NY, Oct. 1993
Geometrical and Homological Methods in Group Theory, Durham, UK, 1994

Third International Conference in Group Theory, Pusan, Korea, 1994
 International Conference in Groups and Group Rings, Gliwice, Poland,
 1994
 Conference on Generators and Relations in Groups (8 lectures), Cortona,
 Italy, 1994
 International Algebra Conference, Jerusalem (Israel), 1996
 International Conference on Modern Algebra and its Applications, Nashville,
 USA, 1996
 International Conference on Geometric and Combinatorial Group The-
 ory, Canberra, Australia, 1996
 International Conference on Group Theory, Montreal, Canada, 1996
 International Algebra Conference, St. Petersburg (Russia), 1997
 International Algebra Conference, Hong Kong, 1997
 Malcev Algebra Conference, Novosibirsk (Russia), 1997
 International Conference "Groups-St Andrews-1997" (two lectures), Bath
 (UK)
 Conference on Geometric Group Theory, Mobile, AL, 1998
 Conference on Combinatorial Methods in Algebra, Fayetteville (Arkansas,
 USA), 1998
 International Conference on Algorithmic Problems in Groups and Semi-
 groups, Lincoln (Nebraska, USA), 1998
 International Conference in Group Theory, Pusan, Korea, 1998
 International Conference on Combinatorial and Computational Methods
 in Mathematics, Omsk, Russia, 1998
 Conference in Algebra, Moscow (Russia), 1999
 International Conference in Algebra, Hong Kong, 1999
 Wasatch Topology Conference, Park City (Uta, USA), 1999
 International Conference in Logic and applications, Novosibirsk (Russia),
 2000
 International Conference in Group Theory, Edmonton (Canada), 2000
 Groups, Rings, Lie and Hopf Algebras, St. John's (Canada), 2001
 Intern. Conf. in Algebra, Sumy (Ukraine), 2001 (2 lectures)
 Algebra and Discrete Math., Euroconference in Hattingen (Germany),
 2001 (2 talks)
 Intern. Math. Conf., Kiev (Ukraine), June 2002
 Intern. Conf. "Algebra - Geometry and Interactions", Hattingen (Ger-
 many), July 2002
 Intern. Conf. in Algebra, Krasnoyarsk (Russia), August 2002
 Geometric Group Theory Conf., Pensacola (Florida), November 2002
 Intern. Conf. in Algebra and Number Theory, Tula (Russia), May 2003

Conference in Combinatorics, Dynamics and Geometry of Groups, Gaeta (Italy), May-June 2003.
 4-th Ukrainian Algebraic Conference, Lviv (Ukraine), August 2003
 53-d Algebra Day in Ottawa (Canada), Sep.27, 2003
 Intern. Conf. in Algebra, Moscow (Russia), June, 2004
 Workshop on K-theory and the Geometry of Groups, Honolulu, Hawaii, Jan. 2005
 Conference in Groups and Group Rings, Bendlevo (Poland), June 2005
 Geometric and Probabilistic Methods in Group Theory, Geneva (Switzerland), June 2005
 5-th Ukrainian Conference in Algebra and Number Theory, Odessa (Ukraine), July 2005
 Asymptotic invariants and Geometric and Probabilistic Methods in Group Theory and Dynamical Systems, College Station (Texas), Nov. 2005
 Group Theory, conference in Ischia (Italy), March-Apr. 2006;
 Geometric and Combinatorial Group Theory, conference in Nashville (TN, USA), May 2006.
 Conference in Group Theory, Nalchik (Russia), July 2006.
 Workshop in Combinatorial Group Theory, Novosibirsk (Russia), August 2006.
 Workshop in Group Theory, Kiev (Ukraine), Dec. 2006.
 Conference in Algebra and Geometry, Erevan (Armenia), May 2007.
 Conference "Algebraic Days in Antalya IX", Antalya (Turkey), May 2007.
 2-d Congress in Algebra and Combinatorics, Beijing - Xi'an (China), July 2007.
 International Conference "Algebra and its Applications", Krasnoyarsk (Russia), August 2007.
 Conference in honor of Wilhelm Magnus, New York (NY, USA), Sep. 2007.
 Workshop on Asymptotic Group Theory and Cryptography, Ottawa (Canada), Dec. 2007
 Colloquium talk at Mathematical Institute in Cuernavaca (Mexico), March 2008
 Conference "Group Theory and Related Topics", Xuzhou (China), April 2008
 Intern. Algebraic Kurosh Conference, Moscow (Russia), May-June, 2008
 Workshop "Profinite and Asymptotic Group Theory" Oberwolfach, June, 2008

Conference and workshop in Group Theory, Chelyabinsk (Russia), Aug. 2008

Colloquium talk at the College of Charleston (SC, USA), March 2009

Conference "Groups and Models", Istanbul (Turkey), June 2009.

International conference "Semigroups and related topics", Porto (Portugal), July, 2009.

The 4th Novi Sad Algebraic Conference, Novi Sad (Serbia), August, 2009.

International conference dedicated to the 50th anniversary of the chair 'Algebra and Logic' of Kyiv National University, Kyiv (Ukraine), December, 2009

Conference "Algebra and Number Theory: Contemporary Problems and Applications", Tula (Russia), May, 2010

VIII International Conference and workshop in Group Theory, Nalchik (Russia), July, 2010.

Conference "Algebra and Logic, Theory and Applications", Krasnoyarsk (Russia), July, 2010.

Workshop "Algorithmic problems of Group Theory and adjacent areas", Erlagol (Altay, Russia) July-August, 2010 (eight 60-min. lectures).

Workshop on Geometric, Asymptotic, Combinatorial Group Theory, Montreal (Canada), August, 2010.

Algebraic Symposium, Moscow (Russia), November, 2010 .

Meeting AMS, Statesboro, Georgia (USA), March 2011.

Conference on Algebra and Applications, Caldas Novas (Brazil), May 2011.

Workshop "Recent Advances in Geometric Group theory", Southampton (UK), June-July 2011, and a talk at the Topology Seminar of Mathematical Institute in Oxford (UK), June 27, 2011.

8th International Algebraic Conference in Ukraine, Luhansk (Ukraine), July 2011.

International Conference on Ring Theory, Novosibirsk (Russia), July 2011.

Monster groups, ESI, Vienna (Austria), December, 2011.

AMS sectional meetings in Honolulu, HI, March, 2012

Conference "Ischea Group Theory 2012", Ischea (Italy), March, 2012.

Conference "Group Theory and Related Topics", Shanghai (China), May, 2012.

Conference "Groups and their actions", Bedlewo (Poland), July 2012.

Conference "Group Theory, Combinatorics, and Computing", Boca Raton, Florida, Oct. 2012.

Conference “Combinatorial Theory of Groups and Hopf Algebras”, Sackville (Canada), Oct. 2012.

Colloquium talk at University of Manitoba, Winnipeg (Canada), March 15, 2013.

Conference “Algebra and Combinatorics”, Yekaterinburg (Russia). June 2013.

Conference “Aspects of Semigroup and Group Theory”, Tel Aviv (Israel), June 2013.

9-th International Algebraic Conference in Ukraine, Lviv (Ukraine), July 2013.

Conference “Algebra and Logic, Theory and Applications”, Krasnoyarsk (Russia), July 2013.

Conference and workshop ”Lie algebras, algebraic groups and invariant theory”, Moscow (Russia), Jan.-Feb. 2014.

Conference “Asymptotic properties of groups”, Paris (France), March 2014.

Conference “Geometry of computation in groups”, Vienna (Austria), March/April 2014.

Colloquium talk at University of Houston, Houston (USA), April 16, 2014.

Conference “Algebra and Number Theory: Contemporary problems and applications”. Tula (Russia), April 2014.

Conference “Classes of groups, algebras, and their applications”, Gomel (Belorussia), July 2014.

International Algebraic Conference, Kyiv (Ukraine), July 2014.

Conference “Combinatorial and Geometric Group Theory”, Jerusalem (Israel), Dec. 2014

Conference “Algebra, Number Theory, Discrete Geometry: contemporary problems and applications”, Tula (Russia), May 2015.

Conference “Growth, Symbolic Dynamics and Combinatorics of words in groups”, ENS (Paris, France), June 2015.

Conference “Groups and their actions”, Bedlewo (Poland), June 2015.

Manhattan Algebra Day, Ney York (USA), Dec. 2015.

Conference “Lie and Jordan Algebras, their Representations and Applications, VI”. Bento Goncalves (Brazil), Dec. 2015.

EPSRC Workshop 2016 ”Geometry and Computation on Groups and Complexes”, Newcastle (UK), June 2016.

Conference ”Groups and Rings - Theory and Applications” (Satellite event 7th European Congress of Mathematics), Sofia (Bulgaria), July, 2016.

Conference "Algebra and Logic: Theory and Applications" and workshop in Group Theory, Krasnoyarsk (Russia), July, 2016.

Malcev Meeting, Novosibirsk (Russia), Nov., 2016

Groups and Actions: Geometry and Dynamics, Kyiv (Ukraine), Dec., 2016.

IV Conference of Mathematical Society of the Republic Moldova, Chisinau (Moldova), June, 2017

XI Internat. Algebraic Conference in Ukraine, Kyiv (Ukraine) July, 2017

3d International Congress in Algebra and Combinatorics, Hong Kong (China), August, 2017.

AMS meeting, Denton (Texas), Sep., 2017.

Colloquium talks, at University of Ivanovo (Russia), Oct. 24, 2017 and University of Salerno (Italy), Nov. 10, 2017.

Group Theory, Ischia-2018, Ischia (Italy), March 2018.

XII conference and workshop in Group Theory, Gelendzhik (Russia), May 2018.

Kurosh conference in Algebra and applications, Moscow (Russia), May 2018.

Conference "Algebra, Number Theory, Discrete Geometry: Contemporary problems and applications", Tula (Russia), May 2018.

RESEARCH INTERESTS

Combinatorial Group Theory, geometric methods in Group Theory, varieties of groups, infinite-dimensional Lie algebras, Ring Theory.

PUBLICATIONS

1. On the residual property of groups, Vestnik Mosk. Univ., Ser. Matem. (1968), N 2, 60–62, Russian (with K. K. Andreyev).

2. On a Hanna Neumann's problem, Matem. Sbornik (1968), N 3, 449–453 (in Russian).

3. Varieties of residually finite groups, Izvestia Akad. Nauk SSSR, Ser. Matem. (1969), N 4, 915–927 (in Russian).

4. On the problem of a finite basis of identities for groups, Izvestia Akad. Nauk SSSR, Ser. Matem.(1970), N 2, 376–384 (in Russian).

5. Two remarks on varieties of groups, Vestnik Mosk. Univ., Ser. Matem. (1971) N 2, 45–50 (in Russian).

6. Some questions of the theory of group varieties, Ph. D. thesis, Mosc. Univ., Dept. of Mechanics and Mathematics, 1971 (in Russian).

7. Solvable just-non-Cross varieties of groups, *Matem. Sbornik* (1971), N 5, 115–131 (in Russian).
8. On orders of relatively free groups of locally finite varieties, *Izvestia Akad. Nauk SSSR, Ser. Matem.* (1973), N1, 89–94 (in Russian).
9. On characteristic subgroups of free groups, *Uspekhi Matem. Nauk* (1974), N 1, 179–180 (in Russian).
10. Quasiidentities in finite groups, *Sibirsk. Matem. J.* (1974), 1409–1413 (in Russian).
11. Identical relations in finite Lie rings, *Matem. Sbornik* (1975), N 4, 543–559, in Russian (joint with Yu. A. Bakhturin).
12. On residual property and characteristic subalgebras of free Lie algebras, *Trudy Sem. im. I.G.Petrovskogo* (1976), N 2, 145–150, in Russian (with Yu. A. Bakhturin).
13. Solvable just-non-Cross varieties of Lie rings, *Matem. Sbornik* (1976), N 3, 384–399, in Russian (joint with Yu. A. Bakhturin).
14. To the questions on the number of generators and orders of abelian subgroups of finite p -groups, *Matem. Zametki* (1978), N3, 345–350 (in Russian).
15. On some infinite sets of identities, *Trudy Sem. im. I. G. Petrovskogo* (1978), N 3, 139–145 (in Russian).
16. Investigation of locally finite varieties of groups, Doctor of Sci. Thesis (1979), Moscow State Univ., Dept. of Mechanics and Mathematics (in Russian).
17. Infinite groups with cyclic subgroups, *Doklady Akad. Nauk SSSR*, 245 (1979), N 4, 785–787 (in Russian).
18. An infinite simple Noetherian torsion free group, *Izvestia Akad. Nauk SSSR, Ser. Matem.* (1979), N 6, 1328–1393 (in Russian).
19. On groups with cyclic subgroups, *Doklady Bulg. Akad. Nauk* 32 (1979), N 5, 1165–1166 (in Russian).
20. An infinite group with subgroups of prime orders, *Izvestia Akad. Nauk SSSR, Ser. Matem.*, 44 (1980), N 2, 309–321 (in Russian).
21. To the question on the existence of an invariant mean on a group, *Uspekhi Matem. Nauk* (1980), N 4, 199–200 (in Russian).
22. Remark on a countable non-topologizable group, *Vestnik Mosk. Univ., Ser. Matem.* (1980), N 3, 103 (in Russian).
23. On Novikov - Adian's theorem, *Matem. Sbornik*, 118 (1982), n 2, 203–235 (in Russian).
24. Groups of a finite exponent with subgroups of a prime order, *Algebra and Logika* (1982), N 5, 553–618 (in Russian).

25. Practical work in algebra, Moscow State Univ. Publ (1983) 92 pages, in Russian (jointly with a team of authors).
26. Collection of exercises in algebra, Parts 1,2,3,4, Moscow State Univ. Publ. (1983, 1984, 1985, 1986), 148+184+104+72 pages, in Russian (jointly with a team of authors).
27. On a geometric method in combinatorial group theory, Proc. Int. Congress Math. 1(1983), 415–424.
28. On abelian and central extensions of aspherical groups, Izvestia Vuzov, Matem. (1985), N 11, 48–60, in Russian (with I. S. Ashmanov).
29. Varieties in which all finite groups are abelian, Matem. Sbornik, 126 (1985), N 1, 59–82 (in Russian).
30. Subgroups of quasifinite groups, Uspekhi Matem. Nauk, 41 (1986), N 6, 169–170, in Russian (joint with G. S. Deryabina).
31. The Neumanns - Shmel'kin's theorem, Vestnik Mosk. Univ., Ser. Matem.(1986), N 6, 61–64 (in Russian).
32. Collection of exercises in algebra, Moscow, Nauka (1987, 1995, 2001, 2006), 352 pages, in Russian (in a team of authors).
33. Identical relations, Sovremen. problemy matem. Fundament. napravl., 117–240: in Itogi Nauki i Tekhniki VINITI AN SSSR, 18, Moscow, 1988, in Russian (with Yu. A. Bakhturin).
34. The Mal'tsev problem on operations on groups, Trudy Sem. im. I. G. Petrovskogo, 14 (1989), 225–249 (in Russian)
35. Geometry of defining relations in groups, Moscow, Nauka, 1989, 448 pages (in Russian, English translation by Kluwer Academic Publ., 1991).
36. Thrifty embeddings of countable groups, Vestnik Mosk. Univ., Ser. Matem. (1989), N 2, 28–34 (in Russian).
37. Infinite groups, Sovremen. problemy matem., Fundament. napravl., 5–113; in Itogi Nauki i Tekhniki VINITI AN SSSR, 37, Moscow, 1989, in Russian (with A. L. Shmel'kin).
38. Diagrams of homomorphisms of surface groups, Sibirsk. Matem. J., 30 (1989), N 6, 150–171 (in Russian).
39. Some applications of graded diagrams in combinatorial group theory, London Math. Soc., Lecture Notes Ser., 160 (1990), 258–308 (with S. V. Ivanov).
40. Embedding of countable periodic groups into 2-generator simple periodic groups, Ukrain. Matem. J., 43 (1991), N 7-8, 980–986 (in Russian).
41. Hyperbolicity of groups with subquadratic isoperimetric inequality, Intern. J. of Algebra and Computation 1 (1991), N 3, 281–289 .
42. Periodic quotients of hyperbolic groups, Matem. Sbornik., 182 (1991), N 4, 543–567 (in Russian).

43. Almost every group is hyperbolic, *Internat J. of Algebra and Comput.*, 2 (1992), N 1, 1–17.
44. On two problems of H. Neumann about linked products of groups, *Bull. Austral. Math. Soc.*, 46 (1992), 2, 311–315 (joint with S. V. Ivanov).
45. Embedding of periodic groups into simple periodic groups, *Ukrain. Matem. J.*, 44 (1992), N 6, 845–847 (in Russian).
46. On residually homomorphisms and G -subgroups of hyperbolic groups, *Internat. J. of Algebra and Comput.*, 3 (1993), 1–44.
47. On calculation of width in free groups, *London Math. Soc., Lecture Notes Ser.*, 204 (1995), 255–258.
48. A simplification of Golod’s example, *Proc. 3rd Int. Conf. in Group Theory (Korea, Pusan, 1994)*, Walter de Gruyter (1995), 263–265.
49. SQ-universality of hyperbolic groups, *Matem. Sbornik*, 186 (1995), N 8, 119–132 (in Russian).
50. A group variety defined by a semigroup law, *J. Austral. Math. Soc. (Series A)* 60 (1996), 255–259 (with A. Storozhev).
51. Genericity of the class of groups in which subgroups with fewer number of generators are free, *Matem. Zametki*, 59 (1996), N 4, 489–496 (in Russian; with G. N. Arzhantseva).
52. Hyperbolic groups and their quotients of finite exponent, *Trans. Amer. Math. Soc.* 348 (1996) N 6, 2091–2138 (with S. V. Ivanov).
53. On finite and locally finite subgroups of free Burnside groups of large even exponents, *Journal of Algebra*, 195(1997), 241–284 (with S. V. Ivanov).
54. On the subgroup distortion in finitely presented groups, *Matem. Sbornik*, 188 (1997), N 11, 73–120 (in Russian).
55. Some constructions relating to hyperbolic groups, *London Math. Soc. Lecture Notes Ser.*, 252 (1998), 263–290 (joint with K. V. Mikha-jlovskii).
56. Distortion functions for subgroups, in ”Geometric Group Theory Down Under”, *Proc. of a Special Year in Geometric Group Theory, Canberra, Australia, 1996*, Ed. J. Cossey, ..., Walter de Gruyter, Berlin - New York, 1999, 281–291.
57. The growth of finite subgroups in p -groups, *London Math. Soc. Lect. Note Ser.* 261 (1999), 579–595.
58. Quadratic isoperimetric functions of the Heisenberg groups. A combinatorial proof, *Algebra*, 11, *J. Math. Sci. (new York)* 93 (1999), no. 6,, 921–927 (with M. V. Sapir).
59. Length functions on subgroups in finitely presented groups, In ”Groups - Korea ’98”, *Proc. Intern. Conf., Pusan, Korea, 1998*, Ed. Young

Gheol Baik ..., Walter de Gruyter, Berlin – New York, 2000, 297–304 (with M.V.Sapir).

60. Embeddings of relatively free groups into finitely presented groups, *Contemp.Math.*, 264 (2000), 23–47 (joint with M.V.Sapir)

61. On the Bass - Lubotzky question about quotients of hyperbolic groups, *Journal of Algebra*, 226 (2000), 807–817 .

62. Length and area functions in groups and quasi-isometric Higman embeddings, *Intern. J. Algebra and Comput.*, 11 (2001), no. 2 , 137–170 (with M.V.Sapir).

63. Non-amenable finitely presented torsion-by-cyclic groups, *Electron. Res. Announc. Amer. Math. Soc.* 7 (2001), 45–53 (<http://www.ams.org/era> ; with M.V.Sapir).

64. Comparison of products of the varieties of Lie algebras, *Communications in Algebra*, 29(2001), no. 9, 4267–4275 (with. A.L. Shmelkin).

65. Isoperimetric functions of groups and combinatorial complexity of the word problem , *Annals of Mathematics* , 156 (2002), no. 2, 467–518 (with J.-C. Birget, E.Rips, M.Sapir).

66. Non-amenable finitely presented torsion-by-cyclic groups, *Publ. Math. IHES*, 96 (2003), no. 6, p.p. 43–169 (with M.V.Sapir).

67. Self-normalization of free subgroups in the free Burnside groups, in "Groups, Rings and Lie Algebras", Kluwer AP, 2003, 179–187.

68. Conjugacy problem for groups and Higman embeddings, *Electronic Res. Announc. of the AMS*", 9 (2003), 40–50 (with M.V.Sapir).

69. Conjugacy problem and Higman embeddings, "Memoirs of the AMS" 170(2004), no. 804 p.p. vii+131 (with M.V.Sapir)

70. Subgroups of finitely presented groups with solvable conjugacy problem, *Intern. J. Algebra and Comput.*, 15, no. 5-6 (2005), 1–10 (with M.V.Sapir)

71. Groups with non-simply connected asymptotic cones, "Contemporary Mathematics", 394 (2006), 203–208 (with M.V.Sapir).

72. Groups with small Dehn functions and bipartite chord diagrams, "Geometric and Functional Analysis", 16 (2006), 1324–1376 (with M.V.Sapir).

73. On finite definability of groups $F/[M,N]$, "Vestnik Moskovskogo Universiteta" (Proc. of the Moscow State University), Ser. 1, 2007, no.6, 19–21 (with O.V.Kulikova, also see arXiv.math)

74. Groups with quadratic-non-quadratic Dehn functions, "Intern. J. Algebra and Comput.", 17(2007), no. 2, p.p. 401–419.

75. A finitely presented group with two non-homeomorphic asymptotic cones, "Intern. J. Algebra and Comput.", 17(2007), no.2, p.p. 421–426 (with M.V.Sapir)

76. Large restricted Lie algebras, “Journal of Algebra”, 310 (2007), no. 1, 413–427 (with Yu.A.Bahturin).
77. Linear automorphism groups of relatively free groups. “Turkish Journal of Mathematics”, 31(2007) (suppl., dedicated to the memory of Brian Hartley), 105–111.
78. A 2-generated 2-related group with no non-trivial finite quotients. “Algebra and Discrete Math.” 2007, no. 2, 111–114 (with M.V.Sapir).
79. Large groups and their periodic quotients. “Proc. of the AMS”, 136 (2008), no. 3, 753–759 (with D.V.Osin).
80. On products of T-ideals in free algebras and free group algebras. “Journal of Pure and Applied Algebra”, 213(2009), no. 2, 259–263.
81. Schreier rewriting beyond the classical setting. “Science in China”, Ser. A, Mathematics (Springer), 52 (2009), no.2, 231–243 (with Yu.A.Bahturin).
82. Lacunarily hyperbolic groups. “Geometry and Topology”, 13(2009), no. 4, 2051–2140 (with D.V.Osin and M.V.Sapir).
83. Periodic quotients of hyperbolic and large groups. “Groups, Geometry and Dynamics”, 3(2009), no.3, 423–452 (with A.Minasyan and D.Sonkin).
84. On F_k -like groups. “Algebra and Logic”, 48(2009), no.2, 140–146 (with M.V.Sapir).
85. Actions of maximal growth, “Proceedings of the London Math. Soc.” 101 (2010), no.1, 27–72 (with Yu.A.Bahturin).
86. Filtrations and distortion in infinite-dimensional algebras, “Journal of Algebra”, 327 (2011), 251–291 (with Yu.A.Bahturin).
87. Subgroup distortion in wreath products of cyclic groups, “Journal of Pure and Applied Algebra”, 215(2011) 2987–3004 (with Tara Davis).
88. Space functions of groups, “Trans. Amer. Math. Soc”, 364 (2012), 4937–4985.
89. Groups with undecidable word problem and almost quadratic Dehn function, “Journal of Topology” 5 (2012), no.4, 785–886 (with Appendix written by M.V.Sapir).
90. A quasi-isometric embedding theorem for groups, “Duke Math. Journal”, 162 (2013), no.9, 1621–1648 (with D.V.Osin).
91. Space functions and space complexity of the word problem in semi-groups, “Computational Complexity”, 22 (2013), no.4, pp. 771–830.
92. On topologizable and non-topologizable groups, “Topology and its Applications”, 160 (2013), 2104–2120 (with Ant.A. Klyachko and D.V.Osin).
93. On abelian subgroups of finitely generated metabelian groups, “Journal of Group Theory”, 16 (2013), no.5, 695–705 (with V.H.Mikaelian).
94. C^* -simple groups without free subgroups, “Groups, Geometry and Dynamics”, 8 (2014), 933–983. (with D.V.Osin).

95. Growth of subalgebras and subideals in free Lie algebras, "Journal of Algebra" 422 (2015), 277-305 (with Yu.A.Bahturin).
96. Relative subgroup growth and subgroup distortion, "Groups, Geometry and Dynamics", 9 (2015), no.1, 237-273 (with Tara Davis).
97. On infinite groups of finite exponent, "Algebra and Logica", 54 (2015), no. 2, 243-251, in Russian, English translation in Algebra and Logic: Volume 54, Issue 2 (2015) (with V.D. Mazurov and A.I.Sozutov).
98. On identities in the products of group varieties, "Intern. J. of Algebra and Comput.", v. 25 (2015), no. 3, 531-540 (with N.S. Boatman).
99. On pairs of finitely generated subgroups in free groups, "Proceedings AMS", 143 (2015), 4177-4188.
100. Diagonal bi-acts over semigroups with finiteness conditions, "Semigroup Forum", 91 (2015), no. 2, 538-542 (with I.B. Kozhukhov).
101. Constructions of torsion-free countable, amenable, weakly mixing groups, "L'Enseignement Mathematique" (2), 61 (2015), 321-342; (with R. Grigorchuk and R. Kravchenko).
102. On Kaluzhnin - Krasner's embeddings of groups, "Algebra Discrete Math. 19 (2015), no. 1, 77-86.
103. Embedding construction based on amalgamations of group relators, "Journal of Topology and Analysis", 8 (2016), no. 1, 1-24.
104. Subnormal subgroups in free groups, their growth and co-growth, "Math. Proc. Cambridge Phil. Soc.", 163 (2017), no. 3, 499-531.
105. On flat submaps of maps of non-positive curvature, Accepted to "Transactions of the American Mathematical Society". arXiv:1702.08205, 2017 (with M. Sapir).
106. On cardinality of sets of relators for the group $F/\prod[N_i, N_j]$, "Fundamental and Applied Mathematics", accepted (with O.V. Kulikova).
107. Polynomially-bounded Dehn functions of groups, "Journal of Combinatorial Algebra", 1 - 123, DOI 10.41J1/JCA/2-y-z.
108. Conjugacy problem in groups with quadratic Dehn function, arXiv.math.1809.00280, 83pp. (with M.V. Sapir).

The following peer-reviewed papers have been published in Soros Educational Journal.

109. Multiplication of symmetries and transformations, no. 5 (1996), 115-120 (in Russian).
110. Group calcula, no. 10 (1996), 114-119 (in Russian).
111. Planar graphs, no. 11 (1996), 117-122 (in Russian).
112. On the complexity of computations in groups, no. 3 (2000), 120-125 (in Russian).