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CURRICULUM VITÆ
Rostislav Ivanovich GRIGORCHUK

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Texas A&M University
Department of Mathematics
College Station, TX 77843-3368
USA

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CURRENT POSITION

Texas A&M University, Department of Mathematics, Distinguished Professor.

EDUCATION

Habilitation, Mathematics	1985
Steklov Institute of Mathematics	
Thesis: "*Groups with intermediate growth function and their applications*"	
Ph.D., Mathematics	1978
Moscow Lomonosov State University	
Thesis: "*Banach means on homogeneous spaces and random walks*"	
B.Sc., M.Sc., Mathematics (with honors)	1970 - 1975
Moscow Lomonosov State University	

PROFESSIONAL CAREER

Texas A&M University, College Station, TX

Department of Mathematics, Professor 2002-2008, Distinguished Professor	2008 - current

Russian Academy of Science, Steklov Mathematical Institute, Moscow

Department of Ordinary Differential Equations. Leading researcher	1995 - current
Moscow Lomonosov State University, Department of Dynamical Systems, Professor.	2001 - 2002

Moscow State University of Transportation, Department of Mathematics

Chair	1992 - 1995
Professor	1987 - 1995
Associate Professor	1983 - 1987
Assistant Professor	1978 - 1983

TITLES and AWARDS

Humboldt Research Award from Humboldt Foundation, Germany	2020
Honor Address from President of Academy of science of Ukraine B.E. Paton on the occasion of 100th Anniversary of the Academy	2019
Leroy P. Steele Prize for Seminal Contribution to Research	2015
Bogolyubov Prize of Ukrainian Academy of Science	2015
Invited Professor at University of Geneva:	March,April 2013, 2014, 2015
Fellow of American Mathematical Society	2012
Association of Former Students Distinguished Achievement Award in Research, Texas A&M University	2009
Award of Russian Academy of Science and the MAIK Publishing for the best publication of scientific paper in 2001, 2002	2002
The Award for Best Scientific Results from the Russian Academy of Science	1999, 2001
Fellow of the Asymptotic Group Theory Programm in the Institute of Advance Studies in the Hebrew University of Jerusalem	2000
Award "The best scientific result for 2000 in the Steklov Institute of Mathematics"	2000
Award "The best scientific result for 1999 in the Russian Academy of Science"	1999
State Award "Outstanding scientist of Russia"	1994-96, 1997-99
London Mathematical Society Visiting Professor Award	1994, 2000
Prize of Russian Foundation "Mathematics"	1992
Fulbright Senior Fellowship at Columbia University, USA	1991
Professor in Mathematics, awarded by Department of Education of USSR	1987
Doctoral dissertation (Russian equivalent of French or German Habilitation) Steklov Mathematical Institute	1985
Thesis: "*Growth functions of finitely generated groups and it applications*"	
Award of Moscow Mathematical Society	1980
Award of Moscow Lomonosov State University for the Best Diploma Research Paper	1975

GRANTS

"Space of marked groups and invariant random subgroups", Supported by Simons Foundation	2017-2022
"Collaborative grant", Supported by Simons Foundation,	2017-2022
"Groups of intermediate growth", Supported by: National Science Foundation	2012-2015
"Collaborative grant", Supported by Simons Foundation,	2011-2012
"Algebraic, combinatorial, spectral and algorithmic properties of groups generated by finite automata", Supported by: National Science Foundation	2006-2008
"FRG: Asymptotic and Probabilistic Methods in Geometric Group Theory", Supported by: National Science Foundation	2005-2007
"Algebraic, geometric and combinatorial properties of branch groups", Supported by: National Science Foundation	2002-2005
"Spectral and asymptotic properties of branch groups" Supported by: Swiss National Foundation for Scientific Research	2000-2002
"Ihara zeta function of infinite graphs and groups" Supported by: CNRS of France	2001-2002
"Algorithmic and rigidity properties of Branch Groups" Supported by: Royal Society	2000

"Groups generated by finite automata and its applications"

EDITORIAL BOARDS

Editor-in-Chief: Groups, Geometry and Dynamics 2007-2022 ("Founding Editor" since January 1, 2023).

Geometriae Dedicata (2002–2015)

Journal of Modern Dynamics (2005–20017)

International Journal of Algebra and Computation (2002–2016)

Journal of Algebra and its Applications (2010–2015)

Matematicheskie Zametki (Mathematical Notes) (1991-2002)

Ukrainian Mathematical Journal (Honorary Member)

Matematuchni Studii

Algebra and Discrete Mathematics

Karpatian Mathematical Publications

Bukovinian Mathematical Journal

Volume editor for:

"Dynamical Systems, Automata, and Infinite Groups", Proceedings of the Steklov Institute of Mathematics, V.231, no. 4 2000.

Algebra and Discrete Mathematics, no.1 (2005), Special issue devoted to Professor Yuriy Drozd.

Groups, Geometry and Dynamics, V.1, no.4. 2007. Special Issue in honor of the retirement of Avinoam Mann.

Geometriae Dedicata, Proceedings of the conference "Geometric and Probabilistic Methods in Group Theory and Dynamical Systems", College Station, November 2005, In Geometriae Dedicata 124 (2007).

Algebra and Discrete Mathematics, no.4 (2009), Special issue devoted to Professor Leonid Kurdachenko.

Groups, Geometry and Dynamics, V.4, no.4. (2010). Special Issue in remembering of Wilhelm Magnus.

Contemporary Mathematics v.567, Dynamical systems and Group Actions, 2012. Special issue devoted to 70th of Anatole Stepin.

National Professional Committees

Russian National Committee VAK (1995–2004)

Referee for:

– National Science Foundation

– National Security Agency

– European Research Council

– Russian Science Foundation

– Switzerland National Science Foundation

– Israel Science Foundation

– Science and Engineering Research Canada

– Marie Curie fellowship proposal with the European Commission's 6th Framework Program

– Pierre Deligne Competition for young mathematicians in Russia, Ukraine and Belarus

– US-NTSA Award for Ukrainian Mathematicians

– Erwin Schrroedinger Fellowship
– Foundation Sciences Maths. de Paris
– ESF: FWO Post-doctoral projects

Departmental Activities
Head, Seminar "Groups and Dynamics"
Member, PhD Committees
Powell Chair Committee
Post-Docs Committee

FIELDS of INTEREST

Group Theory, Dynamical Systems, Low dimensional Topology, Discrete Mathematics, Abstract Harmonic Analysis, Random Walks, Invariant Means, Bounded Cohomology, L^2-invariants.

ADVISOR, MENTOR AND CO-MENTOR FOR:

(Co-mentor) L. Beklaryan (habilitation, current affiliation: Russian Academy of Sciences Central Economics and Mathematics Institute, Moscow, professor)

(Co-mentor) V. Nekrashevych, (habilitation, current affiliation: Texas A&M University, Professor)

(Co-mentor) A. Vdovina (habilitation, current affiliation: University of Newcastle upon Tyne, Professor)

(Co-mentor) L.Bartholdi (Ph.D., current affiliation: University of Goettingen, Professor)

(Co-mentor) R. Mikhailov (Ph.D., current affiliation: Steklov Institute of Mathematics, Moscow, Leading researcher)

(Co-mentor) A. Rozhkov (Ph.D., current affiliation: Ural State University, Chelyabinsk, Russia, professor)

(Co-mentor) E. Pervova (Ph.D., current affiliation: "Marie Curie Incoming International Fellowship", Italy)

(Co-mentor) Yu. Leonov (Ph.D., current affiliation: Odessa State University, Ukraine, Associate professor)

(Co-mentor) I. Lysionok (M.S., current affiliation: Steklov Institute of Mathematics, Moscow, Leading researcher)

(Co-mentor) A. Bufetov (M.S., current affiliation: CNRS, Marceille, Leading Researcher)

(Co-mentor) A. Zuk (Ph.D., current affiliation: Institut de Mathématiques, Université Paris 7, Professor)

(Co-mentor) T. Ceccherini-Silberstein (Ph.D., current affiliation: Università degli Studi del Sannio, Professor)

R. Zatorskii, (Habilitation, Current affiliation: Precarpathian National University of Vasil Stefanik, Ukraine, Professor)

I. Kirchey (Current affiliation: Lviv National University of Ivan Franko, Ukraine, Professor).

A. Boltenkov (M.S.)

(Co-mentor) T. Vovkivskii (M.S.)

I. Bondarenko (Ph.D. Current affiliation: Kyiv National Taras Shevchenko University, Ukraine, Associate Professor)

Y. Muntyan (Ph.D. Current affiliation: Tableau)

D. Savchuk (Ph.D. Current affiliation: University of South Florida, Tampa, Associate Professor)

R. Kravchenko (Ph.D. Current affiliation: University of Chicago, Visiting Assistant Professor)

M. Benly (Ph.D. Current affiliation: Middle East Technical University, Associate Professor)

D. Kocak (Ph.D. Current affiliation: Middle East Technical University, Assistant Professor)

R. Kogan (Ph.D. Current affiliation: Industry)

S. Samarakoon (Ph.D. Current affiliation: Stony Brook University, Visiting Assistant Professor)

Current Ph.D. students

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Postdoctoral scholars

Arman Darbinyan

(Mentor) Russ Thomas

(Co-mentor) D. D'Angeli (current affiliation: Graz University of Technology)

(Co-mentor) A. Donno (current affiliation: Università degli studi Niccolò Cusano, Professor)

B. Petrenko (current affiliation: Eastern Illinois University, Associate Professor)

J. Belk (current affiliation: Bard College, NY, Associate Professor)

Y. Vorobets (current affiliation: Texas A&M University, Associate Professor)

M. Vorobets (current affiliation: Texas A&M University, Senior Lecturer)

(Co-mentor) F. Dahmani (current affiliation: Université Paul Sabatier, Toulouse, Maitre de Conérence, Professor)

C. Thomas (current affiliation: Massachusetts College of Liberal Arts, North Adams, Professor)

INVITED PROFESSOR at

MSRI Berkeley	1989, 2000
Max-Planck Institute, Bonn	1988, 1990, 1994, 1999, 2003, 2006
Columbia University, New York	1991
University of Manitoba	1990
University of Geneva	1995, 1996, 1997, 1998, 1999, 2000, 2002, 2003
University of Rome "La Sapienza"	1992, 1994, 1996, 1999, 2002
Hebrew University of Jerusalem	1996, 2000
Ecole Normale Superieure, Lyon	1996, 2002
ETH Zurich	1997, 1999
IHES, Paris	1998
University of Neuchatel	1998
Royal Institute of Technology, Stokholm	1999
University of Birmingham	2001
The Institut Henri Poincare, Paris	2006
The Institute of Mathematics, Auckland	2007
Isaac Newton Institute for Mathematical Sciences, Cambridge	2007
The Erwin Shrodinger Institute for Mathematical Phyics, Vienna, Austria	2007
University of Geneva, Geneva	2008
IHÉS, Bures-sur-Yvette	2008
University Paris 13,	2010
University Paris Sud 11 (Orsay),	2011

PLENARY and INVITED TALKS AT CONFERENCES

International Congress of Mathematics, Kyoto	1990
Meeting of the London Mathematical Society	1993

Meetings in Oberwolfach	1991,1993, 1995, 1999, 2001

International Conferences in Algebra, Analysis and Probability:

National Algebraic Conference, Minsk, Belorussia	1983
National Algebraic Conference, Kishinev, Moldova	1985
National Algebraic Conference, Lvov, Ukraine	1987
International Algebraic Conference in memory of Malcev, Novosibirsk	1989
International Conference in memory of Shirshov, Barnaul	1992
Conference in Group Theory, Edinburgh, UK	1993, 1998
Conference in Profinite Groups, Durham, UK	1994, 1996
Algebra and Topology Conference dedicated to the 60-th birthday of H. Zieshang, Bochum, Germany	1996
European Summer School on Geometric Group Theory, Crete, Greece	1996
St. Andrews Group Theory Conference, Bath, UK	1997
Euroconference Group Theory: From Finite to Infinite, Castelvecchio Pascoli, Italy	1997
International Conference in memory of Gluskin, Slaviansk, Ukraine,	1997
Combinatorial Group Theory, McGill University, Montreal	1997
International Algebraic Conference in memory of Kurosh, Moscow	1998
International Conference in memory of Pontryagin, Moscow	1998
Discrete Groups and Lattices, Bielefeld, Germany	1999
"On branch groups", Conference on group theory MSRI, Berkeley, CA, USA	January 2000
"Asymptotic properties of branch groups", Conference on Asymptotic group theory, Jerusalem, Israel	April 2000
"Ideas and problems of the theory of branch groups", Haifa, Israel	May 2000
"Groups generated by finite automata", Conference on groups and semigroups, Lincoln, NE, USA	June 2000
"On the spectrum of the lamplighter group", Conference on L^2-invariants, Münster, Germany	June 2000
"Probabilities on groups and the Atiyah Conjecture", Probabilistic methods in Group Theory, New York	December 2000
"Invariant means and growth" North British Workshop on Functional Analysis, Edinburgh	May 2001
"Invariant means and spectra" North British Workshop on Functional Analysis, Edinburgh	May 2001
"From fractal groups to fractal sets", Conference Fractal in Graz, Graz, Austria,	June 2001
"Spectral theory of graphs related to fractal groups", Conference Random Walks, Vienne, Austria	July 2001
"Spectra of fractal groups and and Schreier graphs", Conference on Functional Analysis, Kyiv, Ukraine	September 2001
"Groups generated by finite automata and the Atiyah conjecture", Algebraic Conference, Kyiv, Ukraine	September 2001
"From fractal groups to fractal sets" Frontiers in Mathematics, Texas A&M University, College Station, TX	October 2001

"Random walks on groups and the Atiyah conjecture on L^2-Betti numbers"
  Frontiers in Mathematics, Texas A&M University, College Station, TX   October 2001

"Growth in groups and amenability"
  Frontiers in Mathematics, Texas A&M University, College Station, TX   October 2001

"Invariant means and growth"
  North British Functional Analysis Seminar   2001

"Automata groups - other direction and open problems"
  Workshop (Rencontres Mathematiques) on Groups of Automata, Lyon, France   May 2002

"Algorithmic problem for branch groups"
  Discrete Groups and Geometric Structures, with Applications, at K.U. Leuven
  Campus Kortrijk, Belgium   May 2002

"Groups generated by finite automata and amenability"
  Workshop on Groups and Model Theory at Mons-Hainaut University, Belgium   May 2002

"Analysis on graphs arising from fractal groups"
  Conference on Analysis on Graphs and Metric Spaces, Paris, France   June 2002

"Fractal groups generated by finite automata arising in holomorphic dynamics"
  Conference on Analysis and Probability on Fractals, Cornell University, Ithaca NY   June 2002

"On spectral problems and two-dimensional dynamical systems associated with
  some self-similar structures",
  Waves in Periodic and Random Media, Mount Holyoke College, South Hadley, MA   June 2002

"Quasiregular representations of branch groups and Gelfand Pairs"
  Conference in Harmonic Analysis organized by University of Rome "Tor Vergata" and
  University of Bari, Island Tremini, Italy   June 2002

"Algorithmic problems and presentations of groups generated by finite automata"
  International Conference on Semigroups and Groups in Honor of the 65th Birthday of
  John Rhodes, Porto, Portugal   June 2002

"The Ihara zeta function, the KNS spectral measure and integrable maps",
  Conference on Dynamical Systems in memory of V.A. Alekseev, Moscow   December 2002

International Conference on Group Theory: combinatorial, geometric and dynamical
  aspects of infinite groups, Italy   June 2003

Probability in Mathematics. In Honor of Hillel Furstenberg, Israel   June 2003

Kolmogorov and Contemporary Mathematics. Moscow, Russia   June 2003

Groups and Probability. Budapest, Hungary   2003

Algebra day in Ottawa, Canada   September 2003

"On the friendly competitor of Thomson groups",
  40 Years of Thompson Groups, Palo Alto, California   January 2004

"A minimality property of certain branch groups",
  G^3 Geometric Groups Theory on the Gulf Coast, Mobile, Alabama   February 5-8, 2004

"Branch groups and spectral theory",
  Conference on L^2-Invariants, Mesure Theory and Geometric Group Theory,
  Munster, Germany   March 2004

"Kolmogorov Comlexity, Growth and Algorithmic Problems", invited address at
  AMS meeting, Athens, Ohio   March 2004

"Groups of branch type and finitely presented groups",
  Topological Fest., Cornell   May 2004

"The Ihara zeta function for infinite graphs",

    Analysis and Geometry on Random Structures, Lille, France,   May 24-28, 2004

"Branch groups and Kolmogorov complexity",

    250 anniversary of Moscow University, Jerusalem, Israel   June 2004

"Groups, finite automata and spectra, LMS Northern regional meeting",

    Newcastle, England   June 2004

"Kolmogorov complexity, amenability and growth in groups",

    Workshop on Group Theory, Newcastle, England   June 2004

"The development of amenability in the past 50 years",

    Geometric group theory, Random walks and Harmonic Analysis, Cortona, Italy   June 2004

"Automata groups and dynamics on trees",

    Advanced Course on Automata Groups, Barselona, Spain   July 2004

"Algorithmic problems for branch groups",

    University of Geneva, Switzerland   September 2004

"Algorithmic problems for branch groups and groups generated by finite automata",

    Albany Group Theory Conference, Albany, New York   October 2004

"Presentations of automata groups and subgroups in direct products",

    AMS Meeting, Nashville, Tennessee   October 2004

"Algebraic, algorithmic, and spectral properties of automata groups",

    CMS Meeting, Montreal, Canada   December 2004

"Kaplanskii problem on Jacobson radical",

    Talk at Algebra seminar at University of California in San Diego   March 2005

"Amenability and Self-similar groups"

    at special section 'Discrete groups' at AMS meeting in Lubbock, Texas   April 2005

"Spectra of groups, graphs and amenability",

    Probability and Mathematical Physics, Conference dedicated to S.Molchanov,

    Montreal, Canada   June 2005

"Branchness and self-similarity in group theory",

    5-th International Algebraic Conference, Odessa, Ukraine   July 2005

"On self-similarity and branchness in group theory",

    Groups St. Andrews, St. Andrews, UK 2005   July-August 2005

"C*-algebras related to self-similar groups and asymptotic Ramanujan graphs",

    Operator Algebras and Mathematical Physics, Bucharest, Romania   August 2005

"Hanoi Towers groups",

    Topological and Geometric Methods in Group Theory, Oberwolfach, Germany   April 2006

"Hanoi Tower Groups and Schreier Graphs",

    Combinatorial and geometric group theory, Nashville, Tennessee   May 2006

"Hanoi Towers Groups and spectral analysis",

    The 10-th Midrasha in Asymptotic Group Theory, Jerusalem, Israel   May 2006

"Profinite Self-Similar Groups",

    Pro-p Extensions of Global Fields and pro-p Groups, Oberwolfach, Germany   May 2006

"The spectrum of Hanoi Towers game on three pegs",

    Noncommutative and Matrix valued Analysis, Institut Henri Poincare, Paris, France   June 2006

"Spectral analysis of Ukranian automatic groups and semigroups",

    P vs NP Workshop, University of California, Berkeley   June 2006

"Amenability, Liouville property and ergodicity of boundary actions",
   Semi-annual Workshop in Dynamical Systems and Related Topics,
   Penn State University   October 2006
"Discrete amenable groups – a survey",
   Amenability of Groups and Algebras, Canberra, Australia   January 2007
"The Spectra of Schreier Graphs of Self-similar Groups and Dynamics of Multidimensional
   Rational Mappings 1 and 2",
   Partial Differential Equations: Analysis, Applications, and Inverse Problems,
   Copthorne Waitangi Resort, New Zealand   January 2007
"On classification of groups generated by finite automata and some questions of analysis
   related to such groups",
   Winter School "Methods of Algebra and Analysis in Contemporary Mathematics",
   Chernivtsi, Ukraine   February 2007
"Amenability, branchness and Hanoi towers game",
   Meeting of Kyiv Mathematical Society, Kyiv, Ukraine   February 2007
"The beginning of the Atlas of self-similar groups",
   Totally Disconnected Groups, Graphs and Geometry Workshop,
   Heinrich-Fabri-Institut Blaubeuren, Germany   May 2007
"On Brian Hartley question about maximal subgroups in branch groups",
   Antalya Algebra Days IX, Antalya, Turkey   May 2007
"Schur Complement and Schreier graphs", Analysis on Graphs and Applications,
   Cambridge, UK   June 2007
"Non-elementary amenability and nonamenability" (two talks), Workshop on Algebraic,
   Geometric and Probabilistic Aspects of Amenability, Vienna, Austria   June 2007
"On Dehn functions of infinitely presented groups", Profinite and
   asymptotic group theory, Levico Terme, Italy   September 2007
"On Dehn functions of infinitely presented groups", Conference Dedicated
   to the 100-th Anniversary of W. Magnus, New York   September 2007
"Self-similar groups, operator algebras and Schur complement",
   XXVIII Congress in Harmonic Analysis, Perugia, Italy   May 2008
"Self-similar groups, operator algebras and Shur complements", International Conference
   "Differential Equations and Topology" Dedicated to the Centennial Anniversary
   of L.S. Pontryagin, Moscow State University, Moscow, Russia   June 2008
"On subgroup structure of a 3-generated 2-group of intermediate growth",
   Profinite and Asymptotic Group Theory, Oberwolfach, Germany   June 2008
"The beginning of the classification of self-similar groups", Group theory and complexity,
   Steklov Mathematical Institute, Moscow, Russia   July 2008
"On Dehn functions of infinite presentations of groups", Geometric and Asymptotic
   Group Theory with Applications, Stevens Institute of Technology   March 2009
"Ergodic properties of boundary actions, growth and Nielsen-Schreier theory",
   Group Theory, Number Theory and Geometry Conference on the occasion of
   Fritz Grunewald's 60th Birthday, Oxford   April 2009
"Hanoi Tower game and self-similar groups", Joint Meeting of the 61st British
   Mathematical Colloquium and the 22nd Annual Meeting of the Irish Mathematical Society,
   National University of Ireland Galway   April 2009

"Ergodic properties of boundary actions and Nielsen–Schreier theory",
International Conference on Geometric and Combinatorial Methods in Group Theory
and Semigroup Theory, University of Nebraska, Lincoln   May 2009
"Development of the theory of amenable groups in the last 80 years", the Conference
Dedicated to 75-th Anniversary of Steklov Mathematical Institute, Moscow, Russia   June 2009
"The paradoxical and non-paradoxical in group theory and the Hanoi Towers game",
Groups and Models: Cherlin Bayrami, Bilgi University, Istanbul   June 2009
"Ergodicity of boundary action, Hopf decomposition and Schreier-Nielsen method",
Dynamical Numbers: Interplay between Dynamical Systems and Number Theory,
Max Planck Institute for Mathematics, Bonn   June 2009
"Torsion images of Coxeter groups and Wiegold proble", Geometry, Topology and Computation in
Groups, Diablerets, Switzerland   March 2010
"Torsion images of Coxeter group", Groups and Their Actions, Bedlewo, Poland   August 2010
"Wiegold problem and Torsion images of Coxeter groups",
Actions and Invariants of Residually Finite Groups: Asymptotic Methods,
Oberwolfach, Germany   September 2010
"Torsion images of Coxeter groups and Wiegold proble", Rome, Italy   September 2010
"Free vs nonfree actions of self-similar group",
Workshop on Group Actions and Dynamics, Montreal, Canada   October 2010
"On Wiegold proble", Groups and Dynamics, Santiago, Chile   December 2010
"On Milnor's problem of growth of groups",
Frontiers in Complex Dynamics, Banff, Canada   February 2011
"Free vs. nonfree actions on a boundary of a rooted tree and a Schreier dynamical systems",
Group Actions on Probability Spaces, Texas A&M University, College Station, TX   March 2011
"Manifestations of the Lamplighter", Topology Festival, Cornell University   May 2011
"The algebraic aspects of amenability",
Conference on Algebra and Applications in honor of Prof. Said Sidki, Caldas Novas, Brazil May 2011
"On the Gap Conjecture Concerning Group Growth",
Geometric and Analytic Aspects of Group Theory, Institut Mittag-Leffler, Sweden   2012
"Free and totally nonfree actions",
Invariant Random Subgroups, Sde-Boker, Israel,   February 2012
"Schreier Dynamical Systems, totally non-free actions, and self-similar C^*-algebras",
Program: Interactions Between Ergodic Theory, Number Theory and
Noncommutative Geometry, Columbus, Ohio   May 2012
"On the Gap Conjecture Concerning Group Growth",
Conference "Words and Growth", Institute for Advance Studies,
Hebrew University of Jerusalem, Israel   June 2012
"Topological full groups of minimal Cantor systems are embeddable into finite groups",
International Mathematical Conference on occasion 70th anniversary of
Professor Vladimir V. Kirichenko, Mykolaiv, Ukraine   June 2012
"The subgroup structure of certain amenable groups and the relative gradient rank",
Golod-Shafarevich groups and algebras and rank gradients, Vienna   August 2012
"The relative rank gradient and the subgroup structure of certain amenable groups",
Group Theory on the Hudson, Hoboken, NJ   September 2012
"On Gap Conjecture Concerning Group Growth", Group Theory, Combinatorics, and Computing,

Florida Atlantic University, Boca Raton, Florida   October 2012

"On random groups of intermediate growth", Rice Dynamics Meetings   May 2013

Joint AMS-Romanian meeting , Alba Julia, Romania   June 2013,

The 9th International Algebraic Conference, Lviv, Ukraine   July 2013,

Group Theory, Measure, and Asymptotic Invariants, Oberwolfach, Germany   August 2013

Geometric and Analytic Group Theory, Ventotene, Italy   September 2013

Texas Geometry and Topology Conference, College Station, Texas   October 2013

"Invariant random subgroups of groups of the lamplighter type and some geometric groups",
     Asymptotic properties of groups, IHP, Paris   March 2014.

"On the spaces of groups and subgroups and the concept of invariant random subgroup",
     Geometric and Algorithmic Problems for Groups and Rings, Cuernavaca, Mexico   January 2014

"From Fractal Groups to Fractal Sets and Spectra",
     Fractal Geometry and Stochastics V, Tabarz (Thuringian forest, Germany)   March 2014

"Invariant random subgroups of groups of lamplighter type and of hyperbolic groups",
     Representations, Dynamics, Combinatorics:
     in the Limit and Beyond, St. Petersburg, Russia   July 2014

"Invariant Random Subgroups and nonfree actions of groups",
     Geometrie et Systemes Dynamiques, Strasbourg, France   February 2015

"Spectrum of Schreier graphs of a group of intermediate growth, Lysenok's substitution
     and Schroedinger-Jacoby operators",
     Groups, Symbolic dynamics and Combinatorics of Words in Groups, ENS, Paris   June 2015

"Absolutely nonfree actions, random subgroups, and factor representations",
     Dynamical Systems and Their Applications, Kyiv, Ukraine   June 2015

"Random subgroups, totally nonfree actions and factor representations",
     Group Representations in Dynamical Systems and Geometry   June 29 - July 3, 2015

"Spectra of representations associated with group actions, weak branchness,
     irreducibility, and absolute non-freeness",
     Random walks and harmonic functions on groups, EPFL Lausanne (Switzerland)   2015

"Groups, automata, and automatically generated sequences", Conference: Ischia Group Theory March 29-April 2, Ischia Island, Italy,   2016

"Groups of intermediate growth and aperiodic order Program": Transversal Aspects of Tilings, Oleron, France, June   2016,

"Growth of finitely generated groups and related topics", Program: Master Class on Asymptotic Geometry Sete, France, June 20-25,   2016,

"Totally non-free actions and invariant random subgroups", School on Algebraic, Geometric and Probabilistic Aspect of Dynamical Systems and Control Theory, Trieste, Italy, 4 - 15 July   2016

"Automatically generated sequences and representations of self-similar groups", International Conference Groups and Rings - Theory and Applications, July 11-15, Sofia, Bulgaria   2016

"Amenability of discrete groups". AIM, San-Jose, California, September 26-30,   2016

"Models of random group via the dynamical constructions on the space of groups", Conference: "60 Faces to Groups" in honor of Alex Lubotzky's 60th birthday. Jerusalem, Israel, November 6-11,   2016,

"Spectra of Koopman, quasi-regular and groupoid representations", Workshop: Amenability, coarse embeddability and fixed point properties, MSRI, Berkeley, December 6-9,   2016

"Dynamical constructions on the space of finitely generated groups and the concept of random group", Conference: Anosov Systems and Modern Dynamics December 19-23,   2016

"An interesting example of computation of spec-
   trum of a certain group of intermediate growth",
      Conference on Groups, Probability, Dynamics, Rome, Italy February 22-24,   2017
"On unitary representations of groups acting on measure spaces with the application to branch and
weakly branch groups." Conference on geometric and combinatorial methods in group theory, University
of Illiinois at Urbana-Champain, May 16-18,   2017
"Applications of operator algebras: order, disorder and symmetry". Edinburgh, UK, June 26-30,   2017
"Solving of modern problems by classical methods". 11th International Algebraic Conference in Ukraine,
Kyiv, Ukraine, July 3-7,   2017
"Self-similar groups, automatic sequences, and unitriangular representations",
      The Second International Conference on Groups, Group Rings and Related Topics,
      Oceanic Khorfakkan Resort & Spa, Kkhorfakkan, UAE, November 19-22,   2017
"Unitary representations of branch groups and non free actions."
      Trees, dynamics and locally compact groups, Düsseldorf, Germany, June 25-29,   2018
Frontiers in Mathematics, Tianjin Normal University in China. July 16-17,   2018
Analysis on groups and measured group theory, University of Texas, Austin, September 1-3,   2018
"Joint spectrum of pencil of operators associated with fractal groups: the dynamical approach."
      Modern problem of mathematics and its application in natural sciences and information technologies,
Chernivtsi, Ukraine, September 17-19,   2018
"Spectra of Groups and Graphs."
      Frankfurt Airport Seminar on Groups, Geometry and Dynamics, Frankfurt, Germany, April,   2019
"On the question "Can one hear the shape of a group?" and related topics."
      Antalya Algebra Days XXI, Nesin Mathematics Village, Izmir, Turkey, May 15-19,   2019
" 'Strange' rational maps and spectra of graphs and groups."
      Analytic Low-Dimensional Dynamics: a celebration of Misha Lyubich's 60th birthday, Toronto, Canada,
May 27 - June 7,   2019
"Few approaches to use finite automata in group theory."
      Semigroups and Groups, Automata, Logics SandGAL 2019 Cremona, Italy, June 10-13,   2019
Mathematical physics, dynamical systems and infinite-dimensional analysis, Dolgoprudny, Moscow region,
Russia, 17-21 June,   2019
"Spectra of groups, orthogonal polynomials and random Shrodinger operator."
      International Conference "Functional Methods in Approximation Theory, Differential Equations and
Numerical Methods", IV, Svityaz' Village, Volyn' region, Ukraine, June 20-26,   2019
"Can one hear the shape of a group?"
      The XII International Algebraic Conference in Ukraine, Vinnytsia, Ukraine, July 02-06,   2019
International Conference May 2020 "Ischia Group Theory 2020"   2020
"S.I. Adian memorial conference" May   2020
   "Self-similar groups and problems of modern mathematics. XIII Summer Workshop in Mathematics",
Brazil   2020
   "Geometry, Dynamics and Spectrum of Operators on
Discrete Spaces", January, Oberwolfach, Germany   2021
"The 13th International Algebraic Conference in Ukraine", June 6,   2021
The International algebraic conference "At the End of the Year 2021", Kyiv, Ukraine, December 27, 2021
"Ergodic Theory and its Connections: A Conference in Honor of the Legacy of Michael Boshernitzan",
Rice University , May,   2022

"Low dimensional geometry, topology and dynamics in Sete" Sete, France, May 2022
"Self-similarity of groups, trees and fractals", Paris, France, June, 2022
"Ischia Group Theory" Ischia, Italy, June 2022
"Applied Mathematics and Information Technology", Chernivtci, Ukraine , September 2022.
The International algebraic conference "At the End of the Year 2022", Kyiv, Ukraine, December 27, 2022

Minicources

"Growth of Groups and Related Topics", Atlantic Association for Research in the Mathematical
    Sciences Memorial University of Newfoundland, St. John's. Newfounland, Canada,   May 2012
"Course on geometric group theory" Geneva   2013
"Course on groups of intermediate growth" Geneva   2014
"Transversal Aspects of Tilings" Oleron, France, June 6-10,   2016
"Master Class on Asymptotic Geometry Sete" France, June 20-25,   2016
"Growth of finitely generated groups and related topics" , Program Geometry, Groups and
    Dynamics - 2017, International Centre for Physical Sciences, Bengalore, India, November 13-17, 2017

Colloquium Talks

"Spectra of fractal groups and the Atiyah Conjecture",
    University of Nebraska, Lincoln   March 6, 2003
"Spectra of Groups and Graphs and the Atiyah
    Conjecture", University of California, San-Diego   March 10, 2003
"Spectra of fractal groups and the Atiyah Problem", Rice
    University, Houston   April 3, 2003
"The Ihara zeta function of infinite graphs, the KNS
    spectral measure and integarble maps", Vanderbilt University,
    Nashville   April 14, 2003
"The spectra of groups generated by finite automata and
    the Atiyah Conjecture on L2-Betti numbers", University of
    Illinois, Urbana-Champaign   October 30, 2003
"Spectra of Groups Generated by Finite Automata",
    Eastern Illinois University, Charleston   October 31, 2003
"Spectra of groups and dynamical systems",
    Penn. State University   April 2004
"Groups of intermediate growth and dynamics",
    Stony Brook, New York   May 2004
"Algebraic and spectral properties of groups generated by finite automata",
    Virginia Polytechnic Institute   October 2004
"Ihara zeta function for infinite graphs and groups",
    University of California in San Diego   March 17 2005
"Hanoi towers groups and asymptotic characteristics of Schreier graphs",
    University of Wisconsin, Madison   February 2006
"Spectral properties of Hanoi towers groups", University of Marseille 1, France   June 2006
"Serre Property (FA) and homomorphic images of branch groups",
    University of Florida, Gainesville   December 2006
"Amenability, branching and Hanoi Towers game",

Rice Univercity, Houston	February 2007

"The beginning of the Atlas of self-similar groups",

Indiana University Purdue University Indianapolis, Indianapolis	November 2007

"On Dehn functions of infinite presentations of groups",

University of Texas, Austin	March 2009

"Amenable groups and growth",

Indiana University Bloomington,	October 2010

"The past and the present of the theory of amenable groups",

Binghamton University	May 2011

"Manifestations of the Lamplighter",

Colloquium talk opening Cornell Topology Festival	May 2011

"Amenable groups and homeomorphisms of a Cantor set",

Rutgers University	September 2011

"Gap Conjecture for group growth and related topics",

Claremont College	March 2012

"Gap Conjecture for group growth and related topics",

Darthmouth College	April 2012

"Growth of random groups of intermediate growth and Gap Conjecture",

University of South Florida, Tampa	January 2013

"Random Groups of Intermediate Growth",

University of Texas at Dallas, Richardson	November 2013

"On Random Groups of Intermediate Growth",

Copenhagen, Denmark	April 2014

"Spectra of Schreier graphs of groups of intermediate growth and Schrödinger operators",

University of Michigan	October 2015

"Group of intermediate growth, aperiodic order, and Schrödinger operators",

University of South Florida, Tampa	April 2018
"Spectra of groups and graphs", Higher School of Economics, Moscow,	January 2019
"Spectra of groups and graphs", Rice University,	February 2019
" 'Strange' rational maps and spectra of graphs and groups", University of Bicoca, Milan,	June 2019
" 'Strange' rational maps and spectra of graphs and groups", Houston University	October 2019

CONFERENCE ORGANIZING COMMITTEES

Special Meeting of Moscow Mathematical Society in honor of the 60-th Anniversary of D.V. Anosov, Moscow, Russia	1996
International Conference in Memory of Glushkin, Slaviansk, Ukraine	1997
International Conference in Group Theory, Edinburgh, UK	1998
International Conference in Memory of Pontryagin, Moscow, Russia	1998
International Conference on Functional Analysis, Kyiv, Ukraine	2001
International Conference on Group Theory, Uzhgorod, Ukraine	2001
Workshop on Groups of Automata (Rencontres Mathematiques), Lyon, France	2002
International Algebraic Conference, Lviv, Ukraine	2003
Advanced Course on Automata Groups, Barcelona, Spain	2004
Geometric and Asymptotic Methods in Group Theory, Banff, Canada	2005
5-th International Algebraic Conference in Ukraine, Odesa, Ukraine	2005

Geometric and Probabilistic Methods in Group Theory and Dynamical Systems, College Station, TX	2005
Self-similar Groups, Palo Alto, California	2006
Winter School "Methods of Algebra and Analysis in Contemporary Mathematics", Chernivtsi, Ukraine	2007
Analysis on Graphs and Fractals, Cardiff, United Kingdom	2007
6-th International Algebraic Conference in Ukraine, Kamyanets-Podilsky, Ukraine	2007
Conference Dedicated to the 100-th Anniversary of W. Magnus, New York	2007
Groups and dynamics, one day workshop, Texas A&M University, College Station, Texas	2007
Groups generated by Automata, Ascona, Switzerland	2008
Workshop on Group Theory and Dynamical Systems, Diableret's, Switzerland	2008
AMS Special Session on Group Theory, First Joint International AMS Meeting with the Sociedade Brasileira de Matematica, Rio de Janeiro, Brazil	2008
Differential equations and topology. International Conference dedicated to the 100-th Anniversary of L. Pontryagin, Moscow, Russia	2008
Group Theory and Complexity, Steklov Institute, Moscow, Russia	2008
Self-Similarity and Branching in Group Theory, Banff, Canada	2008
7-th International Algebraic Conference in Ukraine, Kamyanets-Podilsky, Ukraine	2009
Special session at the First International Meeting of the AMS and the Sociedad de Matematica de Chile, Universidad de la Frontera in Pucón, Pucón, Chile	2010
Dynamical systems, nonlinear analysis and their applications, Yerevan, Armenia	2011
International Mathematical Conference on occasion 70th anniversary of Professor Vladimir V. Kirichenko, Mykolaiv, Ukraine,	2012
International Conference on Algebra dedicated to 100th anniversary of S.M. Chernikov, Kyiv, Ukraine	2012
9-th International Algebraic Conference, Lviv, Ukraine	2013
International Conference "Algebra & Logic, Theory & Application" dedicated to the 80th anniversary of Prof. V.P. Shunkov, Krasnoyars, Russia,	2013
Conference "Actions on rooted trees", Paris, France,	2014
Conference "Geometric and Probabilistic Methods in Group Theory and Dynamical Systems", Texas A&M University, College Station, TX,	2015
Special Session "Combinatorial/Geometric/Probabilistic Methods in Group Theory" at the AMS Fall Central Sectional Meeting (#1131), Denton, TX	2017

CHAIR OF SEMINARS

Seminar in group theory (Moscow State University of Transportation, 1986–1995).

Seminar in geometric group theory (Steklov Mathematical Institute, Moscow, 1995–2002).

Seminar on dynamical systems and ergodic theory (Moscow State University of Lomonosov, 1995–2002, co-chair with D.Anosov and A.Stepin).

Groups and Dynamics Seminar (Texas A&M University, College Station, 2002–present).

PUBLICATIONS of R. GRIGORCHUK

Books

1. (with J. Collins, P. Kurchanov, H. Zieshang) *Combinatorial Group Theory and Applications to Geometry*, Springer Verlag, Berlin (1998).

2. (with D. Segal, A. Shalev, du Sautoy and others) *New Horizons in pro-p Groups*, Birkhäuser (2000).

3. *Solved and Unsolved Problems Around One Group*, in Infinite Groups: Geometric, Combinatorial and Dynamical Aspects. Progress in Mathematics Series, Vol. 248. Bartholdi, L.; Ceccherini-Silberstein, T.; Smirnova-Nagnibeda, T.; (Eds.). 2005, 413 p.,Hardcover A Birkhauser book. 117–218.

Articles published in refereed journals and conference proceedings

4. *Symmetric random walks on discrete groups*, Russian Mathematical Surveys, **32** (1977) 217–218.

5. *Symmetric random walks on discrete groups*, in: Multicomponent random systems, ed. R.L. Dobrushin and Ya.G. Sinay, Nauka, Moscow (1978) 132–152.

6. *Invariant measures on homogeneous spaces*, Ukrainian Math. Journal **31**, No 5 (1979) 490–497.

7. (with A.M. Stepin) *On hierarchy coding of stationary sources* Proceedings of the 7-th Conference on theory of coding and information transmission, Chapter 1, Vilnyus (1978) 41–46.

8. (with A.M. Stepin) *Gibbs states and Markovian fields on groups*, in: Mathematical models of statistical physics, Tyumen (1982).

9. *On the Burnside problem on periodic groups*, Funkts. Anal. Prilozen. **14**, No 1 (1980) 53–54.

10. (with A.M. Stepin) *On coding of Markovian sources*, in: Ergodic Theory and Related Topics, Akademie Verlage, Berlin (1982).

11. *Milnor Problem on group growth and theory of invariant means*, Abstracts of ICM in Warshaw, (1982).

12. *On Milnor's problem on group growth*, Soviet Math. Dokl. **28**, No 1 (1983) 23–26.

13. *The growth degrees of finitely generated groups and the theory of invariant means*, Math. USSR Izv **48**, No 5 (1984) 939–985.

14. *The construction of p-groups of intermediate growth having continuum factor groups*, Algebra i Logika **23**, No 4 (1984) 383–394.

15. (with A.M. Stepin) *Gibbs states on countable groups*, Teoriya Veroyat. Prilozen. **2** (1984).

16. *On the growth of finite automata over iterations*, USSR Conference on Applied Logic, Novosibirsk, Abstarcts (1985).

17. *On periodic groups generated by finite automata*, 18-th USSR Algebraic Conference, Kishinev, Abstarcts (1985).

18. *A connection between algorithmic problems and entropy characteristics of groups*, Soviet Math. Dokl. **284**, No 1 (1985) 24–29.

19. *On the growth degrees of p-groups and torsion-free groups*, Mat. USSR Sbornik, **126**, No 2 (1985) 194–214.

20. *Recursively presented residually finite p-groups of intermediate growth with unsolvable word problem*, USSR conference on Mathematical Logic, Moscow (1986).

21. *Superamenability and the problem of embedding of free semigroups*, 10-th USSR Symposium on Group Theory, Gomel, Abstracts (1986).

22. *Superamenability and the problem of embedding of free semigroups*, Funktz. Anal. Prilozen. **21**, No 1 (1987) 74–75.

23. *Individual Ergodic Theorem for the actions of the free group*, 12-th Workshop on Theory of Operators in Functional Spaces, Tambov, Abstarcts **1** (1987).

24. *On Zassenhaus filtration in groups of intermediate growth and on Golod-Shafarevich series*, 19-th USSR Algebraic Conference, Lvov, Abstracts (1987).

25. *Semigroups with cancellation of the power degree growth*, Matemat. Zametki **43**, No 3 (1988) 305–319.

26. *On the Hilbert-Poincare series of the graded algebras associated to groups*, Matem. Sbornik **180**, No 2 (1989) 207–225.

27. *On the topological and metrical types of a regular covering surfaces*, Mat. USSR Izv. **53**, No 3 (1989) 498–536.

28. (with P.F. Kurchanov) *Description of the set of solutions of quadratic equations without coefficients in free groups*, Symposium on the Group Theory, Sverdlovsk, Abstracts (1989) 38–39.

29. (with P.F. Kurchanov) *On the description of the set of solutions of quadratic equations in free groups*, International Algebraic Conference, Novosibirsk, Abstracts (1989).

30. (with P.F. Kurchanov) *The classification of the epimorphisms of fundamental groups of closed surfaces on free groups*, International Algebraic Conference, Novosibirsk, Abstracts (1989).

31. *On Growth in Group Theory*, Proc. of ICM in Kyoto **1** Springer (1990) 325–338.

32. (with P.F. Kurchanov) *Some questions of group theory related to geometry*, in: Algebra 7. Modern Problems of Mathematics. Fundamental Directions **58** Nauka, Moscow (1990) 191–256.

33. (with P.F. Kurchanov) *The classification of epimorphisms of surface groups on free groups*, Matem. Zamet. **48**, No 2 (1990) 26–35.

34. *Growth and amenability of a semigroup and its group of quotients*, Proceedings of the International Symposium on the Semigroup Thory, Kyoto (1990) 103–108.

35. (with P.F. Kurchanov) *On quadratic equations in free groups*, Contemporary Mathematics **131** (1992) 159–171.

36. (with P.F. Kurchanov and H. Zieschang) *Equivalence of homomorphisms of surface groups to free groups and some properties of 3-dimensional handlebodies*, Contemporary Mathematics **131** (1992).

37. (with I.G. Lysionok) *A description of solutions of quadratic equations in hyperbolic groups*, International Journal of Algebra and Computation **2**, No 3 (1992) 237–274.

38. (with A. Machi) *On the group of intermediate growth acting on the reals by homeomorphisms*, Matemat. Zamet. **53**, No 2 (1993) 46–63.

39. *Some results on bounded cohomology*, in: Combinatorial and Geometric Group Theory, LMS Lecture Notes Ser. **284**, Cambridge University Press, (1994) 111–163.

40. *On groups with unusual fix property*, Abstarcts of ICM in Zurich (1994).

41. *Growth functions, rewriting systems and Euler characteristic*, Matemat. Zamet. **58**, No 5 (1995) 653–668.

42. *Weight functions on groups and criteria of amenability of Beurling algebras*, Matemat. Zamet. **60**, No 3 (1996).

43. *On Day problem on nonelementary amenable groups in the class of finitely presented groups*, Mat. Zamet. **60**, No 6 (1996).

44. *Bounded cohomology of group constructions*, Research Conference on Algebra and Discrete Mathematics "Group Theory: Finite to Infinite", Italy, Abstracts (1996) 12–13.

45. (with T. Nagnibeda) *Complete growth functions of hyperbolic groups*, Inventiones Mathemat. **130**, No 1 (1997) 159–188.

46. (with M. Mamaghani) *On use of iterates of homomorphisms for constructing groups with specific properties*, Matematuchni Studii, Lviv (1997).

47. (with P. de la Harpe) *On problems related to growth, entropy and spectrum in group theory*, J. of Dynamical and Control Systems, **3**, No 1 (1997) 51–89.

48. (with T.G. Ceccherini-Silberstein) *Amenability and growth of one-relator groups*, L'Enseignement Mathématique **43** (1997) 337–354.

49. (with T. Ceccherini-Silberstein and P. de la Harpe) *Decompositions paradoxales des groupes de Burnside*, C.R. Acad. Sci. Paris. Ser. matem. **327**, No 2 (1998) 127–132.

50. *On Tychonov groups*, in: Geometry and Cohomology in Group theory, ed. by P.H. Kropholler, G.A. Niblo and R. Stohr, London Math. Soc. Lecture Notes Ser. **252** (1998) 170–187.

51. *An example of finitely presented amenable group which doesn't belong to the class EG*, Matemat. Sbornik, **189**, No 1 (1998) 75–95.

52. (with P. de la Harpe) *Local convexity of growth functions of finitely generated groups and Question 5.2 in the Kourovka Notebook*, Algebra i Logika **37**, No 6 (1998), 353–356.

53. (with A.M. Stepin) *On the amenability of cancellative semigroups*, Vestnik Moskov.Univ. Ser. 1 Mat. Mekh. **3** (1998) 12–16.

54. *Ergodic Theorems for the actions of a free group and a free semigroup*, Mat. Zametki **65**, No 5 (1999) 779–783.

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56. (with T. Machi) *An example of an indexed language of intermediate growth*, Theoretical Computer Sciences **215**, No 1-2 (1999) 325–327.

57. *On the system of defining relations and the Schur multiplier of periodic groups generated by finite automata*, in: Proceedings of Groups St. Andrews 1997, Bath, ed. C.M. Campball, E.F. Robertson, N. Ruskus and G.C. Smith, LMS Lecture Notes Series **260** (1999) 290–317.

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59. (with L. Bartholdi) *Lie method in growth of groups and groups of finite width*, London Math. Soc. Lecture Notes Series **275** (2000) 1–27.

60. (with W.N. Herfort and P.A. Zalesskii) *The profinite completion of certain torsion p-groups*, in: Algebra, Proceedings of the International Algebraic Conference on the Occasion of the 90th Birthday of A.G.Kurosh, Moscow, ed. Y.Bahturin, Walter de Gruyter, (2000) 113–123.

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63. (with L. Bartholdi) *On the spectrum of Hecke type operators related to some fractal groups*, Proc. Steklov Inst. Math. v.231, (2000) 1–41.

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65. *Ergodic theorem for actions of free semigroup*, Proc. Steklov Inst. Math. v.231 (2000), 113–127.

66. (with J.S. Wilson) *The conjugacy problem for certain branch groups.* Proc. Steklov Inst. Math. v.231 (2000), 215–230.

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68. (with P. Linnell, T. Schick, A. Zuk) *On a Question of Atiyah* C.R. Acad. Sci. Paris, t.331 (2000), 662–668.

69. (with A. Zuk) *The lamplighter group as a group generated by 2-state automaton and its spectrum*, Geometriae Dedicata, v.87 (2001), 209–244.

70. (with P. de la Harpe) *One relator groups of exponential growth have uniformly exponential growth*, Mat. Zametki, v.69 (2001), 628–630.

71. (with L. Bartholdi) *Sous-groupes paraboliques et representations de groupes branches.* C.R. Acad. Sci. Paris t.332 (2001), 789–794.

72. (with P. de la Harpe) *Limit behaviour of exponential growth rates for finitely generated groups*, Monographie de L'Enseignement Mathematique **38** (2001), 351–370.

73. (with A. Zuk) *On a torsion-free weakly branch group defined by a three state automaton*, International Journal of Algebra and Computation **12** (2002), 223–246.

74. (with L. Bartholdi) *On parabolic subgroups and Hecke algebras of some fractal groups*, Serdica Mathematical Journal **v.28** (2002), 47–90.

75. (with A. Zuk) *Spectral properties of a torsion free weakly branch group defined by a three state automaton*, Contemporary Mathematics **298** (2002), 57–82.

76. (with I. Lysenok) *Burnside Problem*, in The Concise Handbook of Algebra, A.V. Mikhalev and Gunter F. Pilz (eds.), Kluwer Academic Publishers, (2002), 111–115.

77. *Ergodic Theorems and entropy of non-commutative transformations*, Visnyk Chernivets'kogo Universitety **150**, (2002) 21–26.

78. (with J.S. Wilson) *On finitely generated subgroups in certain periodic group*, Dokladi Akademii Nauk **384**, No 5 (2002) 583–584.

79. (with L. Bartholdi and V.V. Nekrashevych) *From fractal groups to fractal sets*, in Fractals in Graz 2001, P.M. Grabner and W. Woess (eds.), Trends in Mathematics, Birkhauser, 2003, pp. 25–118.

80. (with L. Bartholdi and Z. Sunik) *Branch Groups,* Handbook of Algebra, Vol.3, M. Hazenwinkel (ed.), Elsevier BV, (2003), 989–1112.

81. (with J.S. Wilson) *A structural property concerning abstract commensurability of subgroups*, J. London Math. Soc. (2) 68 (2003), no. 3, 671–682.

82. (with J.S. Wilson) *The uniqueness of the actions of certain branch groups on rooted trees*, Geometriae Dedicata, v.100 (2003), 103–116.

83. (with A. Zuk) *Elementary classes and amenability*, Proceedings of The Congress of Ukrainian Mathematicians, Functional Analysis, (2003), 59–84.

84. Appendix to: M.B. Bekka and P. de la Harpe, *Irreducibility of unitary group representations and reproducing kernels Hilbert spaces*, Expositiones Mathematicae, 21 (2003), 115–149.

85. (with A. Zuk) *The Ihara zeta function of infinite graphs, the KNS spectral measure and integrable maps.* (English. English summary) Random walks and geometry, 141–180, Walter de Gruyter GmbH & Co. KG, Berlin, 2004.

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87. (with J. Wilson) *A minimality property of certain branch groups*, Groups: topological, combinatorial and arithmetic aspects, 297–305, London Math. Soc. Lecture Note Ser., 311, Cambridge Univ. Press, Cambridge, 2004.

88. (with S. Sidki) *The group of automorphisms of a 3-generated 2-group of intermediate growth*, International Journal of Algebra and Computation, v.14 (2004), nos. 5&6, 667–676.

89. (with V.V. Nekrashevych) *Amenable Actions of Nonamenable Groups*, in Representation Theory, Dynamical Systems, Combinatorial and Algorithmic Methods. Part 13. "Zapiski Nauchnyh Seminarov POMI" Series, VOL. 326 (2005), pages 85–96

90. (with Z. Sunic) *Asymptotic aspects of Schreier Graphs and Hanoi Towers groups*, C.R. Acad. Sci. Paris, Ser. I 342 (2006), pages 545–550

91. (with V.Nekrashevych and Z. Sunic) *Hanoi Towers groups*, Oberwolfach Report 19/2006, 11–14.

92. (with V.Nekrashevych and Z. Sunic) *Hanoi Towers group on 3 pegs and its pro-finite closure*, Oberwolfach Report 25/2006, 15–17.

93. (with Z. Sunic) *Self-similarity and branching in group theory*, London Mathematical Society Lecture Note Series 339 (2007), 36–95.

94. (with I. Bondarenko, R. Kravchenko, Y. Muntyan, V. Nekrashevych, D. Savchuk and Z. Sunic) *About classification of groups generated by automata with three states over an alphabet with two letters, and about some questions concerning these groups* (in Ukrainian), Bulletin of the University of Chernivtsi, V. 336–337 (Mathematics), 2007, 29–39.

95. (with V. Nekrashevych) *Self-similar groups, operator algebras and Schur complements*, Journal of Modern Dynamics, V.1, n.3, 2007, 323–370.

96. (with D. Savchuk and Z. Sunic) *The spectral problem, substitutions and iterated monodromy*, CRM Proceedings and Lecture Notes 42 (2007), American Mathematical Society, 225–248.

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100. (with Z. Sunic) *Schreier spectrum of the Hanoi towers group on three pegs*, Proceedings of Symposia in Pure Mathematics 77 (2008), 183–198.

101. (with I. Pak) *Groups of Intermediate Growth, an Introduction for Beginners*, 2008, L'Enseignement Mathématique. Revue Internationale. IIe Série, V.54 (2008), no.3–4, 251–272.

102. (with V. Nekrashevych) *Self-similar Contracting Groups*. In: G.Mislin Problems book. Monographie de L'Enseignement Mathématique, V.40 (2008), 103–105.

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105. (with I. Bondarenko, R. Kravchenko,Y. Muntyan, V. Nekrashevych, D. Savchuk, Z.Sunic) *Groups generated by 3-state automata over a 2-letter alphabet II*, Functional analysis. J. Math. Sci. (N. Y.) v.156, no. 1, (2009), 187–208.

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107. (with V. Kaimanovich and T. Smirnova-Nagnibeda) *Ergodic properties of boundary actions and the Nielsen-Schreier theory*, Advances in Mathematics v.230 (2012), 1340–1380.

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109. (with P. Nowak) *Diameters, distortion and eigenvalues*, European J. Combin. v.33, no. 7, (2012), 1574–1587.

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112. *On the Gap Conjecture concerning Group Growth*, Bulletin of Mathematical Sciences, 4 (2014), no. 1, 113–128.

113. (with K. Medynets) *On algebraic properties of topological full groups*, Matemat. Sbornik, 205, (2014), no.6, 87–108.

114. *Milnor's Problem on the Growth of Groups and its Consequences*, In: Frontiers in Complex Dynamics. In Celebration of John Milnor's 80th Birthday, volume 51 of Princeton Mathematical Series, Princeton University Press, Princeton and Oxford, 2014, 705–773.

115. (with M.G. Benli and Y. Vorobets) *On growth of random groups of intermediate growth*, Groups, Geometry, and Dynamics, 8, (2014), no. 3, 643–667.

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