Prof. US, Dr. Habil. Oleg Bogopolskiy Instytut Matematyki Uniwersytet Szczeciński Wielkopolska 15 70-450 Szczecin Poland

 $\hbox{E-mail: oleg.bogopolskiy@usz.edu.pl}\\$

 26^{th} July 2025

Curriculum Vitae

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1. Education and Titles

- Diploma in Mathematics (with honors), Novosibirsk State University (Russia), 1984
- Ph.D. in Mathematics, Sobolev Institute of Mathematics (Novosibirsk, Russia), 1988
- Habilitation in Mathematics, Sobolev Institute of Mathematics (Novosibirsk, Russia), 2001
- Habilitation in Mathematics, Faculty of Mathematics and Natural Sciences at Heinrich-Heine-Universität Düsseldorf (Germany), 2010

2. Appointments

- Sobolev Institute of Mathematics (Novosibirsk, Russia):
 - Junior Research Fellow, 1987-1989
 - Research Fellow, 1989-1992
 - Senior Research Fellow, 1992-2001
 - Leading Research Fellow (= Professor), 2001
- Novosibirsk State University, Russia (simultaneously)
 - Assistant Professor, 1987-2000
 - Associate Professor, 2000-2002
 - Professor, 2002-2006
- Technische Universität Dortmund (simultaneously)
 - DAAD Guest-Professor at University Dortmund, April 2006 March 2008
 - Scientific Fellow, April 2008 September 2008 and January 2009 March 2009
- Heinrich-Heine-Universität Düsseldorf (simultaneously)
 - Privatdozent from 2010
 - Scientific Fellow, July 2009 March 2010 and in periods between the following appointments:
 - Substitute W2-Professor, April 2010 September 2010 and October 2011 September 2012
 - Substitute W3-Professor (chair of Algebra and Number Theory), October 2012 Sept. 2013
 - Substitute W3-Professor (chair of Partial Differential Equations), October 2014 March 2015
 - Substitute W2-Professor, October 2015 September 2016
 - Substitute W3-Professor (chair of Topology), October 2016 September 2017
 - Substitute W3-Professor (chair of Partial Differential Equations), October 2017 Sept. 2019
 - Substitute W2-Professor, October 2019 July 2020
- Szczecin University (Poland)
 - Professor US, February 2022 now

3. Some long research visits

- Visiting Researcher, Centre de Recerca Matematica, Bellaterra (Spanien), Sept.-Dec. 2004
- Visiting Researcher, Centre de Recerca Matematica, Bellaterra (Spanien), September 2007
- Visiting Researcher, Max-Planck-Institute of Mathematics, Bonn, September-December 2008
- Visiting Researcher, Max-Planck-Institute of Mathematics, Bonn, September-December 2010
- Visiting Researcher, University Bielefeld, January-March 2011

4. Awards

- Winner of the contest "Young researcher" at Institute of Mathematics of Siberian Branch of Russian Academy of Sciences, Novosibirsk, 1991
- Mal'cev's Prize of Siberian Branch of Russian Academy of Sciences, 1992
- Grant of President of Russian Federation for best Habilitation in Mathematics, 2002-2004.
- DAAD Stipendium: Guest-Professor at Universität Dortmund, April 2006- March 2008.
- Nomination to Teaching prize 2018 at Heinrich-Heine-Universität Düsseldorf



The nomination video is available via the following link (see from 2min. 37sec to 3min. 9sec): https://mediathek.hhu.de/watch/4a0224bb-5e5e-4b63-af8c-be7be0220aad

• Award by the rector of Szczecin University for publications in 2023:

Rektor
Uniwersytetu Szczecińskiego
przyznaje
nagrodę indywidualną stopnia1
Pani/Panu dr. hab.
Olegowi Bogopolskiyemu, prof.U5
• •
za szczególne osiągnięcia
naukowe
Janyolla
Szczecin, dnia .14.10.2023 r.

5. Main research interests

Geometric Group Theory, Combinatorial and Algorithmic Group Theory, and (low-dimensional) Topology.

6. Plenary talks and long invited talks on conferences and workshops from 2001

• Białystok University, September 8-12, 2025, 10. Forum Matematyków Polskich, Section of theory of groups, rings, and fields.

40 min. talk: Relatively hyperbolic groups: finite non-parabolic subgroups, the order problem, and the exponential equations problem.

• Lodz University, September 4-8, 2023, Spanish+Polish Mathematical Meeting. Section Geometric and Combinatorial Group Theory.

 $\bf 45~min.~talk:$ Exponential equations in acylindrically hyperbolic groups. https://es-pl.math.uni.lodz.pl

Szczecin University, May 13, 2023, XVII Szczecin Mathematical Colloquium.
 50 min. talk: Exponential equations in groups.

• Universitat Politecnica de Catalunya, June 3-4, 2022, Fifteenth Barcelona Weekend in Group Theory.

1 hour talk: "Structure of solutions of exponential equations in acylindrically hyperbolic groups."

https://groupsbcn.wixsite.com/bcnweekend/schedule

• Szczecin University, March 24-25, 2022, Second graduate student's workshop on Algebra, Logic and Analysis.

1 hour talk: "Acylindrically hyperbolic groups: equations and elementary equivalence." https://www.fvkuhlmann.de/stw2022schedule.htm

• Heinrich-Heine-Universität Düsseldorf, January 20-21, 2020, Workshop 'Group theory days in Düsseldorf'.

1 hour talk: "Algebraically and verbally closed subgroups of groups: Equations in acylindrically hyperbolic groups".

https://www.math-uni-duesseldorf.de/~internet/GTD2020

Gliwice (Poland), September 9-13, 2019, Conference 'Groups and their actions'.
 Invited talk: "Equations in acylindrically hyperbolic groups. Algebraic, verbal, and existential closedness".

http://mat.polsl.pl/groups/

 Seoul (Korea), July 15-20, 2018, Conference 'Geometric and Asymptotic Group Theory with Applications (GAGTA 2018)'.

Invited talk: "Equations in acylindrically hyperbolic groups and verbal closedness". https://sites.google.com/view/gagta2018/home

• Regensburg (Germany), Sept. 25-29, 2017, Conference 'Manifolds and Groups'.

Invited talk: "Verbal closedness for relatively hyperbolic groups".

 $http://www-app.uni-regensburg.de/Fakultaeten/MAT/sfb-higher-invariants/images/sfb_mag2017.pdf$

• Sobolev Institute of Mathematics (Novosibirsk, Russia), November 21-25, 2016, Mal'cev Meeting, http://math.nsc.ru/conference/malmeet/16/Main_e.htm Plenary talk: "From local to global conjugacy in relatively hyperbolic groups"

• Stevens Institute of Technology (NY, USA), June 13-17, 2016, Conference 'Geometric and Asymptotic Group Theory with Applications (GAGTA-10)' http://web.stevens.edu/algebraic/GAGTA2016/program.php

Plenary talk: "From local to global conjugacy in relatively hyperbolic groups"

Bedlewo (Poland), June 22-26, 2015,
 International conference 'Groups and their Actions',

http://mat.polsl.pl/groups/ Main Speaker: "Train Tracks"

• Bonn (Germany) December 5, 2014,

Conference 'Geometric Group Theory in Bonn',

Plenary talk: "An algorithm for finding a basis of the fixed point subgroup of an automorphism of a free group"

• Newcastle (QL, Australia), July 21-25, 2014,

Conference 'Geometric and Asymptotic Group Theory with Applications (GAGTA-8)'

Plenary talk: "Infinite words and generalized presentations of groups versus classical combinatorial group theory"

• New York (USA), May 28-31, 2013,

Conference 'Geometric and asymptotic group theory with applications (GAGTA-7)',

http://www.stevens.edu/algebraic/GAGTA/index.htm

Plenary talk: "An efficient algorithm for computing a basis of the fixed point subgroup of an automorphism of a free group"

South Padre Island (USA), March 21-24, 2013,
 G³-Conference.

http://www.math.uiuc.edu/~mineyev/ggg/

Plenary talk 1: "Introduction to train tracks"

Plenary talk 2: "An efficient algorithm for computing the fixed point subgroup of an automorphism of a free group"

• Barcelona-Bellaterra (CRM) (Spain), 10th November, 2012 Workshop for the International Conference 'Automorphisms of free groups'.

1-hour talk: "A basis of the fixed point subgroup of an automorphism of a free group"

• Düsseldorf (Germany) July 25 - August 3, 2012,

Conference 'Geometric and Combinatorial Group Theory with Applications (GAGTA-6)'.

Plenary talk: "A basis of the fixed point subgroup of an automorphism of a free group"

• Köln (Germany) September 19-22, 2011,

Minisymposium 'Geometric Group Theory' in frames of the DMV-Jahrestagung 2011.

1-hour talk: "Generalized presentations of infinite groups, in particular of $\operatorname{Aut}(F_{\omega})$ "

• Manresa (Barcelona, Spain), July 11-15, 2011,

International Conference 'Geometric and Asymptotic Group Theory'

Plenary talk: "Some new residual properties of groups"

• Omsk (Russia), August 16-22, 2009,

International Workshop 'New Algebra-Logical Methods in Solution for Systems of Equations in Algebraic Structures'

http://omskconf2009.oscsbras.ru/eng.program.html

1-hour talk: "Conjugacy separability for subgroups of virtually free groups"

• Barcelona (Spain), April 24-25, 2009,

4th Barcelona Weekend in Group Theory.

Invited talk: "On endomorphisms of torsion-free hyperbolic groups"

• Alagna Valsesia (Italy), December 14-20, 2008,

'Makanin-Razborov Workshop'

http://www.mas.ncl.ac.uk/~najd2/alagna/

1-hour talk: "On the fundamental and the first homology groups of the Hawaiian Earrings and of Griffiths' space"

• Düsseldorf (Germany), November 26-28, 2008,

Workshop 'Algebra, Geometry, Arithmetic, Dynamics Related to the Solvable Radical and Representations of Finite Groups'

http://www.math.uni-duesseldorf.de/~grunewald/Conf2008/nov2008.html

1-hour talk: "On the fundamental and the first homology groups of the Hawaiian Earrings and of Griffiths' space"

• Erlangen (Germany), September 14-19, 2008,

Minisymposium 'Combinatorial and geometric group theory' in frames of the DMV-Jahrestagung 2008

1-hour talk: "A presentation of a subgroup of $F_n \times F_n$ with unsolvable membership problem" **1-hour talk:** "On the fundamental and the first homology groups of the Hawaiian Earrings and of Griffiths' space"

• Manresa, Barcelona (Spain), August 31 - September 4, 2006, International conference 'Geometric and asymptotic group theory with applications' http://www.epsem.upc.edu/~gagta/programen.shtml

Plenary talk: "On a Magnus property for some one-relator groups"

• Piestany (Slovak Republic), July 16-20, 2005,

Workshop 'Equations in Groups and Applications of Algebraic Methods in Computer Science and Cryptology'

1-hour talk: "Some methods of detecting the hyperbolicity for one relator groups"

• Novosibirsk (Russia), November 17-19, 2003,

Mal'cev Meeting 03,

http://math.nsc.ru/conference/malmeet/03/Main.htm

http://math.nsc.ru/conference/malmeet/03/Prog.rtf

Plenary talk: "On Dehn functions of groups"

• Novosibirsk (Russia), November 21-23, 2001,

Mal'cev Meeting 01,

http://math.nsc.ru/conference/malmeet/01/Prog_win.htm

Plenary talk: "On Magnus' theorem for fundamental groups of compact surfaces"

7. Long courses given on workshops and an invited course at the University of Szczecin

• 9 lectures for PhD students and researchers on international workshop "Algorithmic problems in group theory and related areas", Novosibirsk (Russland), 23. Juli – 4. August, 2018 (http://www.math.nsc.ru/conference/isc/)

Thema: "Relatively hyperbolic and acylindrically hyperbolic groups"

• 10 lectures for PhD students and researchers at Universitat Politecnica de Catalunya in Barcelona (Grant of the Spanish Government: 'Movilidad de profesores visitantes en masteres oficiales', code MAS2008-00003-P, 2009).

Thema 1: "Automorphisms of free groups and train tracks" (5 lectures in April 2009).

Thema 2: "Hyperbolic groups" (5 lectures in June 2009).

• 17 lectures and 8 tutorials for PhD students and researchers of the University of Szczecin (November 8, 2021 - January 24, 2022). Invited by Prof. Kuhlmann.

Thema: "Fuchsian groups".

8. Invited talks on research seminars

- Wroclaw University (Poland) (invited by Prof. Valiunas, November 2024)
- Gdansk University (Poland) (invited by Prof. Zastrow, June 2024)
- Poznan University (Poland) (invited by Prof. Marzantowicz, June, 2023)
- Wroclaw University (Poland) (invited by Prof. Valiunas, April 2023)
- Wroclaw University (Poland) (invited by Prof. Osajda, May 2021)
- Steklov Mathematical Institute (Moscow, Russia) (invited by Prof. Lysenok, April 2021)
- Dresden University (Germany) (invited by Prof. Thom, November 2019)
- Wroclaw University (Poland) (invited by Prof. Osajda, March 2018)
- Silesian University of Technology (Gliwice, Poland) (invited by Prof. Iwanow, December 2017)
- Nashville University (USA) (invited by Prof. Osin, March 2017)
- Stevens Institute of Technology (USA),
 - Group Theory International, Online-Seminar (invited by Prof. Serbin, Mai 2016)
- Universitat Bielefeld (Germany) (invited by Prof. Bux, April 2016)
- Macquarie University Sydney (Australia) (invited by Prof. Batanin, 2014)
- University of Melbourne (Australia) (invited by Dr. Lawrence Reeves, 2014)
- Stevens Institute of Technology (USA),
 - Group Theory International Online-Seminar (invited by Prof. Serbin, April 2014)
- University of Illinois at Urbana Champaign (USA) (invited by Prof. Mineyev, March 25-29, 2013)
- Stevens Institute of Technology (USA),
 - Group Theory International Online-Seminar (invited by Prof. Miasnikov, 2012)
- Bar-Ilan University (Israel) (invited by Prof. Tsaban, 2011)
- Kiel University (Germany) (invited by Prof. Weidmann, 2011)
- Karlsruhe Institute of Technology (Germany) (invited by Prof. Rieder, 2010)
- Moscow MGU (Russia) (invited by Prof. Klyachko, 2010)
- Düsseldorf University (Germany) (2 times; invited by Prof. Grunewald, 2009)
- MPIM Bonn (3 times; invited by Prof. Moree und Prof. Ballmann, 2008, 2010)
- Newcastle (Great Britain) (invited by Prof. Duncan, 2007)
- Edinburgh (Great Britain) (invited by Prof. Howie, 2007)
- Barcelona (Spain) (2 times; invited by Prof. Ventura, 2005, 2007)
- Lausanne (Switzerland) (invited by Prof. Bartholdi, 2006)
- Toulouse (France) (invited by Prof. Boileau, 2004)
- Gdansk (Poland) (5 times; invited by Prof. Szepanski and Zastrow)
- Berlin (Germany) (2 times; invited by Prof. Pinkall, Pohst, and Brinkmann, 2005)
- Bielefeld (Germany) (2 times; invited by Prof. Helling)
- Frankfurt (Germany) (6 times; invited by Prof. Bieri, Burde und Metzler)
- Dortmund (Germany) (3 times; invited by Prof. Rosenberger)
- Bochum (Germany) (6 times; invited by Prof. Zieschang)

9. Some sectional conference talks

• Tel Aviv, Bar Ilan University (Israel), Mai 26 - 30, 2019, Geometric and Asymptotic Group Theory with Application (GAGTA 2019).

http://u.math.biu.ac.il/~vishne/Conferences/GAGTA2019/program.html

Talk: "Algebraically and verbally closed subgroups of groups: Equations in acylindrically hyperbolic groups"

• Salzburg (Austria), September 11 - 15, 2017, 19th OMG Congress and Annual DMV Meeting, Minisymposion M2 Fractals and Wild Topology.

Talk: "The automorphism group of the free group of infinite countable rank"

- Poznan (Poland), September 17 19, 2014, German Mathematical Society (DMV) and Polish Mathematical Society (PTM), (http://dmv.ptm.org.pl (http://dmv.ptm.org.pl/37session.html) Talk: "Generalized presentations of groups, in particular of $Aut(F_w)$ "
- Braunschweig (Germany), May 21-24, 2013,

Workshop 'Questions, Algorithms, and Computations in Abstract Group Theory',

http://www.icm.tu-bs.de/ag_algebra/ws-qac/index.php

Talk: "An efficient algorithm for computing the fixed point subgroup of an automorphism of a free group"

• Braniewo (Poland), July 24-25, 2010,

Weierstraß-Killing-Colloquium.

http://mat.ug.edu.pl/index.php?url=mod/article.php&id=356

Talk: "On generalized conjugacy separability in the class of virtually free groups"

• Novosibirsk (Russia), August 24-28, 2009,

Mal'tsev Meeting

Talk: "Conjugacy separability for subgroups of virtually free groups"

• Göttingen (Germany), November 17-21, 2008,

Summer School 'Geometric invariants of groups'

http://www.uni-math.gwdg.de/www/archiv.html

Talk: "On the fundamental and the first homology groups of the Hawaiian Earrings and of Griffiths' space"

• Oberwolfach (Germany), June 22-28, 2008,

Workshop 'Profinite and Asymptotic Group Theory'

http://www.mfo.de/programme/schedule/2008/

Talk: "The conjugacy problem for some extensions of groups and a presentation of Mihailova's subgroup"

• Bendlewo (Poland), July 1-7, 2007,

International conference 'Groups and their actions'

http://mat.polsl.pl/groups/index-2.html

Talk: "Subgroups of small index in $Aut(F_n)$ and Kazhdan's property (T)"

• Marseille, CIRM (France), February 26 - March 2, 2007,

International conference 'Groups 007'

http://www.latp.univ-mrs.fr/~coulbois/Groups007/index.html

Talk: "Subgroups of small index in $Aut(F_n)$ and Kazhdan's property (T)"

• Novosibirsk (Russia), November 15-17, 2005, Maltsev Meeting 05.

 $http://www.math.nsc.ru/conference/malmeet/05/Main_e.htm$

http://www.math.nsc.ru/conference/malmeet/05/Main.htm

Talk: "On the generalized Whitehead problem for hyperbolic groups"

• Barcelona (Spain), June 28 - July 2, 2005,

Barcelona Conference on Geometric Group Theory.

Talk: "Endomorphisms of hyperbolic groups"

• Mainz (Germany), June 16-19, 2005,

2nd Joint Meeting of AMS, DMV, ÖMG

http://www.mathematik.uni-mainz.de/mainz2005/program/CP.pdf Two talks:

- 1) "The conjugacy problem in free-by-hyperbolic groups"
- 2) "On the generalized Whitehead problem for hyperbolic groups"
- Bendlewo (Poland), April 18-24, 2004,

Conference on 'Geometric group theory'

http://www.math.uni.wroc.pl/ggt/geom04

Talk: "Mean Dehn functions of groups"

• Sankt Petersburg (Russia), September 11-22, 2002,

International Algebraic Conference dedicated to the memory of Z.I. Borevich

http://www.umsolver.com/proceeding.htm

Talk: "An analogue of a theorem of Magnus for fundamental groups of surfaces"

• Sevilla (Spain), June 18-21, 2003

First Joint Meeting AMS/RSME

http://www-ma4.upc.edu/~burillo/sevilla.html

Talk: "An analogue of a Magnus' theorem for surface groups and some other one-relator groups"

• Ustron (Poland), June 10-14, 2003,

International conference 'Groups and Group Rings'

http://mat.polsl.pl/groups/starekonf/a2.html

• Gaeta (Italy), June 1-6, 2003,

International Conference "Geometric, Combinatorial and Dynamical Aspects of Infinite Groups"

• Some earlier conferences with sectional talks:

Cortona (Italy), 2002; Hattingen (Germany), 2001; Haifa (Israel), 2000; Warwick (England), 1999; Southampton (England), 1997; Anogia, Crete (Greece), 1996.

10. Organisation of Conferences

- A member of the Steering Committee of GAGTA from 2006 to 2023, http://gagta.org This committee organizes conferences on geometric and asymptotic group theory.
- Main organizer of the international conference "Geometric and Combinatorial Group Theory with Applications (GAGTA-6)", Heinrich-Heine-Universität Düsseldorf), July 25 August 3, 2012. http://reh.math.uni-duesseldorf.de/~gcgta/
- Organizer of the minisymposium in frames of the DMV-Jahrestagung 2011
 "Geometric Group Theory",
 Universität Köln (Germany), September 19-22, 2011.
 http://www.mi.uni-koeln.de/dmv_2011/index/minisymposien.html
- Member of the Scientific Committee of the international conference "Geometric and Asymptotic Group Theory with Applications (GAGTA-5)", Manresa, Barcelona (Spain), July 11-15, 2011. http://www.epsem.upc.edu/~gagta5
- Main organizer of the minisymposium in frames of the DMV-Jahrestagung 2008
 "Combinatorial and geometric group theory",
 Universität Erlangen (Germany), September 14-19, 2008.
 http://www.mi.uni-erlangen.de/~dmvadmin/dmv08/vortragprogramm/minisymposien.shtml
- Main organizer of the international conference "Combinatorial and Geometric Group Theory with Applications", Technische Universität Dortmund (Germany), August 27-31, 2007. http://www.mathematik.uni-dortmund.de/~gcgta
- Coorganizer of the Malt'sev Meeting, Institute of Mathematics of SB RAS, Novosibirsk (Russia), November 17-19, 1998. http://math.nsc.ru/conference/malmeet/index.htm

11. Courses taught

A) Courses taught at Szczecin University

• SoSe 2025:

Hyperbolic geometry and Fuchsian groups (lectures with seminars for master students)

Cryptography II (lectures with seminars for master students)

Scientific seminar for master students

Discrete mathematics (lectures with seminars for bachelor students)

• WiSe 2024/2025:

Analytic geometry (lectures with seminars for bachelor students)

Scientific seminar for master students

• SoSe 2024:

Discrete mathematics (lectures with seminars for bachelor students)

Algebra 2 (lectures for bachelor students)

Cryptography (lectures with seminars for bachelor students)

Three selected themes of Group Theory (lectures with seminars for master students)

• WiSe 2023/2024:

Algebra 2 (lectures for bachelor students)

Analytical geometry (lectures with seminars for bachelor students)

Galois theory (lectures with seminars for master students)

• SoSe 2023:

Discrete mathematics (lectures with seminars for bachelor students)

Cryptography (lectures with seminars for bachelor students)

Selected topics in group theory (lectures with seminars for master students)

Turing machines, recursive functions, group theory and knot theory (lectures for PhD students)

• WiSe 2021/2022

Fuchsian groups (lectures with seminars for PhD students)

B) Courses taught at universities in Germany (Düsseldorf and Dortmund)

• Research seminars (for researchers and PhD students)

http://www.math.uni-duesseldorf.de/~bogopolski/research_seminar_geometric_group_theory.html

Joint Düsseldorf – Gliwice seminar "Geometric Group Theory – 2020". WiSe 2020 – now.

"Geometric Group Theory". SoSe 2011 – 2019.

"Computational Algebra and Number Theory" (with F. Grunewald, W. Singhof and E. Klimenko) SoSe 2009 - SoSe 2010.

• Lectures (for bachelor and master students)

Kummer Theory and Fermat's Last Theorem (with seminars): SoSe 2021

Boundary questions of Group Theory and Logic (with seminars): WiSe 2020/21

Introduction to Number Theory (with seminars): SoSe 2020

Number Theory (with seminars): WiSe 2012/13

Introduction to Group Theory (with seminars): WiSe 2016/17

Fuchsian Groups (with seminars): SoSe 2014/15, WiSe 2021/2022

Coxeter Groups I and II (with seminars): WiSe 2013/14, SoSe 2014

Group Theory (with seminars): WiSe 2012/13, WiSe 2011/12

Geometric Group Theory (with seminars): WiSe 2019/20

Combinatorial Group Theory (with seminars): SoSe 2019

Algorithmic Group Theory (with seminars): 2007/08

Hyperbolic Groups: SoSe 2006

Lie-Algebras und Lie-Groups: WiSe 2007/08, SoSe 2007

Algorithmic Algebra (with seminars): SoSe 2008, WiSe 2006/07

Algorithmic Algebra (with seminars): WiSe 2008/09

Algorithmic Algebra and applications to Cryptography. Parts I and II (with seminars):

SoSe 2006, WiSe 2006/07, SoSe 2007

Linear Algebra I (with tutorial): SoSe 2018, WiSe 2015/16, SoSe 2013, SoSe 2012, SoSe 2011, SoSe 2010

Linear Algebra II (with tutorial): SoSe 2016,

Analysis I (with tutorial): SoSe 2017, WiSe 2014/15

Analysis II (with tutorial): SoSe 2019, WiSe 2017/18, SoSe 2015

• **Seminars** (for students)

Combinatorial und Geometric Group Theory: SoSe 2018

Facets of Geometrical Group Theory: WiSe 2017/18, SoSe 2020

Number Theory: SoSe 2017, SoSe 2013 Lie-Algebras and Lie-Groups: SoSe 2016

Applications of Galois Theory: WiSe 2015/16 Selected Chapters of Group Theory: SoSe 2008

Number Theory and Geometric Group Theory: WiSe 2006/07

Limit-Groups: SoSe 2006

• **Proseminars** (for bachelor students)

Proseminar "Proofs from THE BOOK": WiSe 2019/20

Proseminar Linear Algebra: WiSe 2008/09, SoSe 2010

Proseminar Linear Algebra for gymnasium teachers: SoSe 2008

C) Courses taught at Novosibirsk State University

• Research seminar (for researchers and PhD students)

"Geometric Methods in Group Theory" (with V. Churkin and D. Khramtsov), 1990-2006

• Lectures (for bachelor and master students)

Reflection groups, 1992-1993 Combinatorial Group Theory, 1993-1995 Group Theory, 1996-2001 Modern Algebra and Representations Theory of Groups, 2001-2002 Lie Algebras and Lie-Groups, 2002-2005 Algorithmic Number Theory and Elements of Cryptography, 2005-2006

• **Seminars** (for students)

Linear Algebra I, 1987-2003 Galois Theory, 1988-1992 Linear optimisation theory, 1989-1990 Algebra and Analytic Geometry, 2005-2006

12. My former PhD students

- C. Feldkamp: "Magnus Eigenschaft und Freiheitssätze für Gruppen" (completed 2020)
- T. Leßmann: "Some algorithmic problems for automorphisms of free groups" (completed 2016)
- A. Elsawy: "Subgroup conjugacy separability property" (completed 2012)
- K. Sviridov: "Magnus property and hyperbolic groups" (completed 2011)
- N. Buskin: "One-relator hyperbolic groups" (completed 2009)
- O. Maslakova: "Fixed-point subgroups of automorphisms of free groups" (completed 2004)

See Mathematics Genealogy Project: https://www.mathgenealogy.org/id.php?id=218518

13. Grants

(travel grants are not included)

• Grant of RFBR N 96-01-01781 (1996-1997).

I was the main researcher in a team of 3 researchers.

Theme: "Hyperbolic groups, their automorphisms, and the theory of ends of groups". Supported by ≈ 3000 Euro.

• Grant N7 of the Siberian Branch of Russian Academy of Sciences for young researchers (2000-2002). I was the main researcher in a team of 7 young researchers.

Theme: "Group theory".

Supported by ≈ 4000 Euro.

• Grant of the President of Russian Federation for the best Habilitation in Mathematics 2002-2003 (Grant M-(01) Nr. 02-01-99252 and MD-326.2003.01).

Theme: "Geometric methods in group theory".

Supported by ≈ 5000 Euro.

• International Grant INTAS N 03-51-3663.

This grant was given to a team of researchers from Germany, Italy, and Russia (2004-2006). The main coordinator of the project was Prof. C. Petronio (University of Pisa). I was supported by 2.500 USD.

• I was the main organizer of the international conference "Combinatorial and Geometric Group Theory with Applications", Technical University of Dortmund, 27-31 August, 2007. http://www.mathematik.uni-dortmund.de/~gcgta/Supported by grants of DAAD (5000 Euro) and DFG (7000 Euro).

• Invited through the Grant of the Spanish Government:

'Movilidad de profesores visitantes en masteres oficiales', code MAS2008-00003-P, (2009). I gave 10 invited lectures for Ph.D students and professors at the Universitat Politecnica de Catalunya in Barcelona:

"Automorphisms of free groups and train tracks" (5 lectures in April 2009)

"Hyperbolic groups" (5 lectures in June 2009).

• I was the main organizer of the international conference "Geometric and Combinatorial Group Theory with Applications (GAGTA-6)", Heinrich-Heine-Universität Düsseldorf, July 25 - August 3, 2012.

http://reh.math.uni-duesseldorf.de/~gcgta/index.htm

Supported by DFG (24000 Euro), by the Gesellschaft von Freunden und Förderern der

H.-H.-Universität Düsseldorf (8000 Euro), and by Mathematical Institute of the

H.-H.-Universität Düsseldorf (5000 Euro).

• Grant of the "Gesellschaft von Freunden und Förderern der HHU" for organisation of the Mathematics Academy at 2016 [for pupils in age 16-18] (4000 Euro) http://www.math.hhu.de/mathe/akademie/2016.html

14. Work with talented pupils

- 1. Organizer and head of the Mathe-Academy for Pupils at Heinrich-Heine-University Düsseldorf (from 2016). Webpage:
 - $https://www.math.uni-duesseldorf.de/\sim bogopolski/Mathe-Akademie_Angebot_fuer_Schueler_engl.html$
- 2. Compact courses for pupils at Heinrich-Heine-University Düsseldorf, August 2013, 2015.
- 3. Training of 2 pupils for NRW Mathe-Olympiad (3rd level) [both won the 1st prize at 2020] and for Germany Mathe-Olympiad (4rd level).
- 4. Co-organizer of the NRW Mathe-Olympiad (3rd level), 2019.
- 5. Training of Düsseldorf's team for the first Megapolis-Olympiad in Moskau.
- 6. Lectures at Mathe-Camp in Düsseldorf, 2017, 2018, 2023-2024.
- 7. Lectures at the Institute for Talented Pupils in Bochum, 2009-2010.

15. Languages

English - fluently, German - fluently, Russian - mother language, Polish - basic skills (I give some mathematical courses in Polish).