CURRICULUM VITAE

Dr. AMIRAN GOGATISHVILI Csc

MR AUTHOR ID: 254490
ORCID ID: 0000-0003-3459-0355
ResearcherID: D-5428-2014
SCOPUS Author ID: 6603450927

Employer: Institute of Mathematics of the Czech Academy of Sciences
Žitná 25
CZ - 115 67 Prague 1
Czech Republic
Tel: +420 222 090 786
E-mail: gogatish@math.cas.cz
http://www.math.cas.cz

Born: July 17, 1961, Sachkhere, Georgia

Marital status: married to Ia Giorgobiani

Children: Two sons, Giorgi (born 1997) and Nodari (born 1999)

Citizenship: Georgia

Education and scientific degrees:

- 1978 - 1983, undergraduate study at the Faculty of Mechanics and Mathematics at the Tbilisi State University, Tbilisi, Georgia;

- 1983 Honorers diploma of Mathematician (M.S.), Speciality- Mathematical Analysis;

- 1983 - 1987, post-graduate student of A. Razmadze Mathematical Institute of the Georgian Academy of Sciences, Tbilisi, Georgia;

- 1988, the academic degree of Candidate of Physical and Mathematical Sciences (Ph.D. equivalent) awarded by supreme certification commission under council of Ministry of the USSR by the decision of the Board under Tbilisi State University;
  Thesis title: Fractional maximal functions and potentials in weighted spaces (Russian). Tbilisi State University 1988.

Professional experiences:

- September 2018 - up to now, Research Fellow at the Department of Abstract Analysis of the Institute of Mathematics of the Czech Academy of Sciences;

- July 2010 - August 2018, Research Fellow at the Department of Topology and Functional Analysis of the Institute of Mathematics of the Czech Academy of Sciences;

- October 2000 - June 2010, Research Fellow at the Department of Qualitative Methods of Mathematical Analysis of the Institute of Mathematics of the Academy of Sciences of the Czech Republic;

- October 1998 - September 2000, Visiting Professor at the Institute of Mathematics of the Academy of Sciences of the Czech Republic;

- June 1997 - May 1998, NATO and The Royal Society Postdoctoral Fellowship at the School of Mathematics of the University of Wales, Cardiff, UK;

- February 1997 - June 1997, External lecturer at the Department of Applied Mathematics, Georgian Technical University, Tbilisi;

- May 1992 - October 2006 Senior scientific researcher of the Department of Mathematical Analysis of the A. Razmadze Mathematical Institute of Georgian Academy of Sciences, Tbilisi;

- September 1987 - April 1992, Scientific researcher at the Department of Mathematical Analysis of the A. Razmadze Mathematical Institute of Georgian Academy of Sciences, Tbilisi.

Research interest:

- real and functional analysis, harmonic analysis, function spaces, interpolation, weighted inequalities, integral operators, Sobolev embeddings and application to PDE's.

Awards:

- 1987, The Prize of the A. Razmadze Mathematical Institute of Georgian Academy of Sciences for the young mathematician.

Publishing activity:

- **131** publications including: 2 monographs, 112 original research papers in academic journals, 15 papers in the conference proceedings and 2 preprints.

  116 publications cited **1007** times by **432** authors, **h-index: 17** (Math Sci Net, 20 September 2020).

  82 publications cited **1051** times, **h-index: 19** (ISI Web of Knowledge from All Databases, 20 September 2020).

  89 publications cited **994** times, **h-index: 17** (Scopus, 20 September2020).

  147 publications cited **2098** times, **h-index: 25**, **i10-index: 52** (Google scholar, 20 September 2020).

  164 publications cited **1782** times, (ResearchGate, 20 September 2020).

Editorial work:

- Founding editor of the Tbilisi Mathemastical Journal; (2005 -2012)

- Member of the International Editorial Advisory Board of the Transactions of Academy of Sciences of Azerbaijan. Series of Physical-Technical and Mathematical Sciences; 2015 -

Conference organizer:

- Spring School "Nonlinear Analysis, Function Spaces and Applications 7", Prague, 2002;

- Spring School "Nonlinear Analysis, Function Spaces and Applications 8", Prague, 2006;

- Miniconference "Spaces Between Us", Třešť, 2008;

- Spring School "Nonlinear Analysis, Function Spaces and Applications 9", Třešť, 2010,

- International Conference on Fourier Analysis and Approximation Theory, dedicated to the 80th birthday of Academician Levan Zhizhiashvili, Bazaleti (Georgia) October 23-28, 2013,

- International Scientific Conference Weighted Estimates of Differential and Integral Operators and their Applications 2017, Astana, Republic of Kazakhstan, 4-6 May, 2017.

- International conference "Operators in Morrey-type Spaces and Applications"(OMTSA2017), Ahi Evran University, Kirşehir, Turkey, 10-13 July, 2017.

- International Conference on Mathematical Advances and Applications (ICOMAA-2018), Yildiz Technical University, Istanbul, Turkey, 11-13 May, 2018.

- 11th International Conference Nonlinear Analysis, Function Spaces and Applications, NAFSA11, Prague, Czech Republic, 9–14 July, 2018.

- 5th International Conference on Recent Advances in Pure and Applied Mathematics (ICRAPAM 2018) Trabzon, TURKEY, 23-27 July, 2018.

- International Conference on Mathematical Studies and Applications (ICMSA2018), Karaman, Turkey, 4-6 October, 2018.

- 2nd International Conference on Mathematical Advances and Applications (ICOMAA-2019), Yildiz Technical University, Istanbul, Turkey, 3-5 May, 2019.

- 3rd International conference "Operators in Morrey-type Spaces and Applications" (OMTSA2019), Dumlupınar University, Kutahya, Turkey, 16-20 July, 2019.

Supervisor of the PhD student:

Nino Samashvili (I. Javakhishvili Tbilisi State University) PhD Thesis: Aproximation problems in variable Lebesge spaces. Ph.D. thesis defend 2017

Post Doctorate supervising:

INTAS supervisor of INTAS Postdoctoral Fellow R. Mustafayev, 2007-2009

Supervisor of TUBITAK Postdoctoral Fellow Abdulhamit Küçükaslan 2017-2018

Grants:

1. Project Title: Weighted inequalities for integral operators. project period of time 1997-1999 , awarded by the Georgian Academy of Sciences, grant no. 1.7;

2. Project Title: Function spaces, weighted inequalities and approximation numbers for integral operators, project period of time 2001-2003, awarded by the Leverhulme Trust, Grant No. F/00407/E, UK;

3. Project Title: Weighted inequalities, function spaces, interpolation, extrapolation, approximation and entropy numbers, project period of time 2002-2003, awarded by the NATO-grant reg. No PST. CLG. 978694;

4. Project Title: Function spaces and weighted inequalities for integral operators, project period of time 1.1.2001-31.12.2003, awarded by the Grant Agency of the Czech Republic, grant no. 201/01/0333;

5. Project Title: Function spaces and weighted inequalities for integral operators, project period of time 1.1.2005-31.12.2007, awarded by the Grant Agency of the Czech Republic, grant no. 201/05/2033;

6. Project Title: Functional spaces and applications to partial differential equations, project period of time 2006-2008, awarded by the INTAS, project no. 8157;

7. Project Title: Interpolation approach to embedding involving Sobolev, Besov and Hölder spaces, project period of time 2006 - 2008, awarded by the GRICES (Portugal)/ASCR, collaboration grant;

8. Project Title: Function spaces and interpolations, project period of time 2007-2008, awarded by the AV CR and VŠ ČR/DAAD SRN, PPP Project No. D 15 - CZ 2/07-08;

9. Project Title: Function spaces and weighted inequalities and interpolation, 1.1.2008 -31.12.2012, awarded by the Grant Agency of the Czech Republic, grant no. 201/08/0383;

10. Project Title: Interpolation approach to embedding involving Sobolev, Besov and Hölder type spaces, project period of time 2009 - 2010, awarded by the FCT(Portugal)/ASCR collaboration grant;

11. Project Title: Inequalities for moduli of smoothness and their applications to the study of the embeddings between Sobolev and Besov type spaces, project period of time 2011, awarded by the FCT(Portugal)/ASCR collaboration grant;

12. Project Title: Geometry of function spaces, interpolation and embedding theorems, project period of time 2012-2014, awarded by Shota Rustaveli National Science Foundation (SRNSF), grant no. 13/06;

13. Project Title: Function spaces and weighted inequalities and interpolation II, project period of time 1.1.2013 -31.12.2017, awarded by the Grant Agency of the Czech Republic, grant no. P201/13/14743S;

14. Project Title: Operators in some function spaces and their applications in Fourier Analysis, project period of time 2013-2016, awarded by Shota Rustaveli National Science Foundation (SRNSF) , grant no. 31/48;

15. Project Title: Function spaces, weighted inequalities for integral operators and problems of summability of Fourier series, project period of time 2014-2017, awarded by Shota Rustaveli National Science Foundation (SRNSF), grant no. DI/9/5-100/13.

16. Project Title: Operators of Fourier analysis in some classical and new function spaces, project period of time 2016-2019, awarded by Shota Rustaveli National Science Foundation (SRNSF), grant no: 217282.

17. Project Title: Function Spaces and Approximation, project period of time 1.1.2018 - 31.12.2020, awarded by the Grant Agency of the Czech Republic, research grant no. 18 - 00580S.

18. Project Title: Function spaces and some problems of Harmonic Analysis, project period of time 20.12.2017-19.12.2020, awarded by Shota Rustaveli National Science Foundation (SRNSF) grant no: FR17_589.

Participation in the Conferences and contributed talks:

- 2019 (5-8 December), Bohemian Day of Function Spaces, Friedrich Schiller University Jena, German, (Invited Speaker)

  Title of the talk: Some new results related to Lorentz $G\Gamma$-spaces and interpolation.

- 2019 (24-30 November), Latest in Geometric Analysis. Celebration of Pekka Koskela's 59th birthday, Będlewo, Poland, (Invited Speaker)

  Title of the talk: Interpolation of Sobolev spaces defined on a metric measure space

- 2019 (23-27 September), Function spaces and PDE's 2019, Małe Ciche, Poland, (Invited Speaker)

  Title of the talk: Operators in Generalized Morrey-type Spaces and One Dimensional Inequalities Involving Hardy Operators.

- 2019 (16-20 July), 3$^{\text{rd}}$ International conference "Operators in General Morrey-type Spaces and Applications, (OMTSA2019) Dumlupinar University, Kutahya, Turkey, (Invited Speaker, Member of the Scientific Committee)

  Title of the talk: Boundedness of classical operators in Morrey type spaces and Hardy inequalities.

- 2019 (10-13 July), International Conference on Mathematics and Mathematics Education (ICMME-2019), Selçuk University, Konya, Turkey. (Invited Speaker)

  Title of the talk: Some new results related to Lorentz $G\Gamma$ -spaces and interpolation,

- 2019 (9 July), Analysis Seminar, Department of Mathematics at Pamukkale University, Denizli, Turkey,

  Title of the talk: Definition of the generalized Morrey-type spaces modeled on the Banach Function Spaces (local and global)

- 2019 (5 July), Analysis Seminar, Department of Mathematics at Ankara University.

  Title of the talk: Embeddings between weighted complementary local Morrey-type spaces and weighted local Morrey-type spaces.

- 2019 (May 26 - June 1), 46th Spring School on Analysis, May 26- June 1, 2019, Paseky, Czech Republic

  Title of talk: from one-dimensional two weighted inequalities to n-dimensional analog

- 2019 (3-5 May), 2nd International Conference on Mathematical Advances and Applications (ICOMAA-2019), Yildiz Technical University, Istanbul, Turkey. (Invited Speaker, Member of the Scientific Committee)

  Title of the talk: Characterization of Embeddings of Sobolev-type spaces into Generalized Hölder Spaces

- 2019 (28-31 March), VII School of Analysis in memory of A. Pełczyński, 28.03.2019 - 31.03.2019, Będlewo, Poland

  Poster: Interpolation approach of the Sobolev-type spaces embedding into generalized Hölder Spaces

- 2019 (10-14 February), Explorations in Harmonic Analysis and other realms, A conference honoring Alexander Olevskii's 80th birthday, February 10-14, 2019, Weizmann Institute of Science, Rehovot, Israel

- 2018 (30 November), Seminar in Analysis and PDE, Universidade de Coimbra, Coimbra, Portugal,

  Title of talk: Generalized weighted Lorentz spaces

- 2018 (4-6 October), International Conference on Mathematical Studies and Applications (ICMSA2018), Karaman, Turkey,(Invited Speaker, Member of the Scientific Committee)

  Title of the talk: Strong differentiation of functions from variable Lebesgue spaces $L^{p(\cdot)}([0,1]^n)$

- 2018 (23-27 July), 5$^{\text{th}}$ International Conference on Recent Advances in Pure and Applied Mathematics (ICRAPAM 2018) Trabzon, TURKEY, (Invited Speaker, Member of the Scientific Committee)

  Title of the talk: Weighted Norm Inequalities for Positive Operators Restricted on The Cone of ρ-Quasiconcave Functions

- 2018 (9-14 July), 11$^{\text{th}}$ International Conference Nonlinear Analysis, Function Spaces and Applications, Prague, Czech Republic, (Speaker, Member of the Organizing Committee)

  Title of the talk: Weighted Norm Inequalities for Positive Operators Restricted on The Cone of ρ-Quasiconcave Functions

- 2018 (4-8 June), International Conference Harmonic Analysis and Applications, Strobl18, Strobl, AUSTRIA

  Title of the poster: Construction of function spaces close to L^∞ with associate space close to L^1

- 2018 (11-13 May), International Conference on Mathematical Advances and Applications (ICOMAA-2018), Yildiz Technical University, Istanbul, Turkey. (Invited Speaker, Member of the Scientific Committee)

  Title of the talk: Construction of variable exponent Lebesgue space $L^p(\cdot)(\mathbb{T})$ close to $L^\infty(\mathbb{T})$ with associate space close to $L^1(\mathbb{T})$

- 2017 (24 November), Seminar in Analysis and PDE, Universidade de Coimbra, Coimbra, Portugal,

  Title of talk: Characterization of Interpolation between Grand, small or classical Lebesgue spaces

- 2017 (17-23 September), New Perspectives in the theory of function spaces and applications, Będlewo, Poland, (Speaker)

  Title of the talk: Characterization of Interpolation between Grand, small or classical Lebesgue spaces

- 2017 (29-31 August), Siegmundsburg Seminar on Analysis & Theoretical Numerics, Siegmundsburg/Thuringia, Germany. (Invited Speaker)

Title of the talk: The extrapolation theorems for weighted generalized Morrey spaces

- 2017(10-13 July), International conference "Operators in Morrey-type Spaces and Applications", Ahi Evran University, Kırşehir, Turkey. (Invited Speaker)

  Title of the talk: The extrapolation theorems for weighted generalized Morrey spaces

- 2017 (29-30 March), International conference in Analysis, University of Poitiers, Futuroscope, France,

  Poster: Characterization of Interpolation between Grand, small or classical Lebesgue spaces

- 2016 (4-9 July), Ninth International Conference "Function Spaces, Differential Operators and Nonlinear Analysis" Prague, Czech Republic, July 4-9, 2016, (Speaker),

  Title of the talk: Some s-numbers of an integral operator of Hardy type in Banach function spaces

- 2016 (28 April), Colloquium, University of Poitiers, Poitiers, France

  Title of the talk: Generalized weighted Lorentz spaces;

- 2016 (21 March), Analysis Seminar, Ahi Evran University, Kırşehir, Turkey

  Title of the talk: Boundedness of Stein's spherical maximal function in variable Lebesgue space and application to the wave equation;

- 2015 (27 November), Analysis Seminar, Friedrich-Schiller-University Jena, Germany,

  Title of talk: Characterizations of Sobolev, Besov and Triebel-Lizorkin Spaces via averages on balls;

- 2015 (24 - 27 June), Singular PDEs, Analytical Tools and Applications, June 24 - 27, Małe Ciche 2015, Poland, (Invited Speaker)

Title of talk: Weighted iterated Hardy-type inequalities;

- 2015 (28 May), Colloquim del Departmento de Análisis Matemático, Universidado Complutense de Madrid,

  Title of talk: Ulyanov-type inequalities between Lorentz-Zygmund spaces

- 2015 (15 May), Seminar in Analysis and PDE, Universidade de Coimbra, Coimbra, Portugal,

  Title of talk: Boundedness of Stein's spherical maximal function in variable Lebesgue space and application to the wave equation;

- 2014 (9 - 15 June), School on Nonlinear Analysis, Function Spaces and Applications 10, June 9 - 15, Trest Castle, Czech Republicn 2014, (Speaker),

  Title of talk: Maximal multiplier operators in $L^{p(\cdot)}(R^n)$ spaces;

- 2014 (30 May), Talk for all graduates, Beijing Normal University, Beijing, Chine,

  Title of talk: Boundedness of Stein's spherical maximal function in variable Lebesgue space and application to the wave equation;

- 2014 (16 May), Analysis Seminar, Beijing Normal University, Beijing, Chine,

  Title of talk: Sobolev spaces defined on a doubling metric measure spaces and real interpolation;

- 2014 (14 April), Analysis Seminar, Bilkent University, Ankara, Turkey,

  Title of talk:The weighted Stieltjes inequality and applications;

- 2013 (21 November), Colloquim del Departmento de Análisis Matemático, Universidado Complutense de Madrid,

  Title of talk: Boundedness of Stein's spherical maximal function in variable Lebesgue space and application to the wave equation;

- 2013 (23-28 October), International Conference on Fourier Analysis and Approximation Theory, dedicated to the 80th birthday of Academician Levan Zhizhiashvili, Bazaleti (Georgia) October 23-28, 2013, (member of the organizing committee and Speaker),

  Title of talk: Boundedness of Stein's spherical maximal function in variable Lebesgue space and application to the wave equation;

- 2013 (24-31 August), Second international conference, Mathematics in Armenia: Advances and Perspectives, 24-31 August, 2013, Tsaghkadzor, Armenia, Dedicated to the 70th Anniversary of Foundation of Armenian National Academy of Sciences, (Invited Speaker),

  Title of talk: Boundedness of Stein's spherical maximal function in variable Lebesgue space and application to the wave equation;

- 2013 (14 May), Analysis Seminar, Kirikkale University, Kirikkale University, Turkey,

  Title of talk:Reduction theorems for operators on the cones of monotone functions

- 2012 (4 December), Istituto per le Applicazioni del Calcolo "Mauro Picone" - UOS di Napoli, Seminar in analysis and application,

  Title of talk: The weighted Stieltjes inequality and applications;

- 2012 (2-5 October), International Scientific Conference on Functional Analysis and its Application, 2-5 October, Astana, Kazakhstan 2012, (Invited Speaker),

  Title of talk: Reduction theorems for operators on the cones of monotone function;

- 2012 (9-13 July), Calculus of Variations and PDEs, satellite conference of the 6th European Congress of Mathematics, Szczawnica, Poland, 9-13 July, 2012,(Speaker),

  Title of talk: Reduction theorems for operators on the cones of monotone functions;

- 2012 (4 June), Analysis Seminar, Kirikkale University, Kirikkale University, Turkey,

  Title of talk: Some properties of quasi-concave functions;

- 2011 (10 October), Barcelona Analysis Seminar, Centre de Recerca Matematica, Bellaterra, Barcelona, Spain,

  Title of talk: Sobolev spaces defined on a doubling metric measure spaces and real interpolation;

- 2011 (26-30 September), International Conference on Function Spaces and Variable Exponent Analysis September 26 to 30, 2011, Centre de Recerca Matematica (CRM), Bellaterra, Barcelona, Spain, (Invited Speaker),

  Title of talk: Embeddings and the growth envelope of Besov spaces involving only slowly varying smoothness;

- 2011 (18-24 September), 8$^{\text{th}}$ International Conference on Function Spaces, Differential Operators, Nonlinear Analysis (FSDONA-2011) 18-24 September, 2011, in Tabarz/Thür. (Germany) http://fsdona2011.uni-jena.de/, (Speaker),

  Title of talk: Embeddings of Besov spaces with generalized smoothness into Lorenz spaces;

- 2011 (17 June), Seminar in Analysis and PDE, Universidade de Coimbra, Coimbra, Portugal,

  Title of talk: The weighted Stieltjes inequality and applications;

- 2011 (20-27 May), The International Workshop on Operators in Morrey Type Space and Applications - OMTSA 2011, Kirşehir, Turkey, (Invited Speaker),

  Title of talk: Characterization of the dual and pre-dual spaces of the local and global Morrey-type spaces;

- 2010 (22-25 September), Workshop in Inequalities and PDEs, Male Ciche, Poland, (Invited Speaker),

Title of talk: Resent development in the theory of the weighted Hardy inequalities;

- 2010 (11-17 September), Nonlinear Analysis, Function Spaces and Applications (NAFSA 9) September 11 - 17, 2010, Trest Castle, Czech Republic member of the organizing committee;

- 2010 (June 28-July 2), The Jozef Marcinkiewicz Centeraly conference, Poznan, Poland, (Speaker),

  Title of talk: Calderón-type interpolation theorem for operators with nonstandard endpoint behaviour and applications to sharp sobolev embeddings;

- 2010 (June 17, 2010), Seminar in functional analysis and application, Universidade de Aveiro, Aveiro, Portugal;

  Title of talk: Calderón-type interpolation theorem for operators with nonstandard endpoint behaviour and applications to sharp sobolev embeddings;

- 2010 (May 19), Analysis seminar, University of Jyväskylä, Finland,

  Title of talk: Calderón-type interpolation theorem for operators with nonstandard endpoint behaviour and applications to sharp sobolev embeddings;

- 2010 (April 14), Seminar at the Department of Mathematics, Lulea Univesity of Technology, Lulea, Sweden,

  Title of talk: Some open problems in the weighted Hardy inequality;

- 2010 (March 30), Seminar in the Department of Mathematics and Art, Ahi Evran University, Kirşehir, Turkey,

  Title of talk: Reverse Hardy inequality;

- 2010 (January 22-27), The Joint Mathematical Conference CSASC 2010, (XIth Conference of Czech Mathematicians), Prague, Czech Republic, (Invited Speaker)

Title of talk: Calderón-type interpolation theorems and applications to sharp Sobolev embeddings;

- 2009(March 4-8), 4th World Conference on 21st Century Mathematics 2009, Abdus Salam School of Mathematical Sciences, GC University Lahore, Pakistan, (Invited Speaker),

  Title of talk: Optimal embeddings of Bessel-Potential-type spaces into generalized Hölder spaces involving k-modulus of smoothness;

- 2008(July 6-12), Workshop on Function Spaces and Applications, Freyburg/Unstrut (Germany), (Speaker),

  Title of talk: Interpolation orbits and optimal Sobolev's embeddings;

- 2007(August 13-18), 6th International ISAAC (International Society for Analysis, its Applications and Computation) congress, Ankara, Turkey, (Speaker),

  Title of talk: Optimal Sobolev's embeddings;

- 2007(May 21), Analysis seminar, University of Helsinki, Finland,

  Title of talk: Sobolev's embeddings and interpolation in the Lorentz spaces;

- 2007 (May 17), Analysis seminar, University of Jyväskylä, Finland,

  Title of talk: Interpolation Orbits and optimal Sobolev's embeddings;

- 2007(May 15), Analysis seminar, University of Oulu, Finland,

  Title of talk: The optimal embedding for the Calderón type spaces and the J-method spaces;

- 2006 (September 14), Seminar in functional analysis and application, Universidade de Aveiro, Portugal,

  Title of talk: "A reduction theorem for supremum operators " ;

- 2005 (September 11-17), Workshop on Fractal Analysis, Eisenach, Germany, (Speaker),

Title of talk: Integral operators on metric spaces;

- 2005 (May 26), Functional Analysis Seminar, University of Helsinki, Finland,

  Title of talk: A non- doubling Trudinger inequality;

- 2005 (May 6), Analysis seminar, University of Jyväskylä , Finland,

  Title of talk: Optimal embeddings of Bessel-potential-type spaces into Lorentz- Karamata spaces;

- 2004 (December 8), Seminar at the Department of Mathematics, Luleå University of Technology, Lulea, Sweden,

  Title of talk: Embeddings and Duality theorems for weak classical Lorentz spaces;

- 2004 (October 21), Seminar in functional analysis and application, Universidade de Aveiro, Portugal,

  Title of talk: An equivalence theorems for some scales of integral conditions related to Hardy's inequality;

- 2004 (April 25), Seminar in Problems of Modern Analysis, Technion, Haifa (Israel),

  Title of talk: Functional properties of the space $S_p(w)$;

- 2004 (April 19), Analysis seminar, Bar-Ilan University Ramat Gan, Israel,

  Title of talk: A new type of symmetric spaces;

- 2003 (July 21-25), The Wladyslaw Orlicz Centenary Conference and function spaces VII, Poznan (Poland), (Speaker),

  Title of talk: Boundedness of Classical operators on Lorentz spaces;

- 2003 (April 14), Seminar in Problems of Modern Analysis, Technion, Haifa (Israel),

  Title of talk: Stability of the real interpolation method;

- 2002 (November 7-9), Real analysis symposium, Kagoshima University, Kagoshima (Japan), (Invited Speaker),

  Title of talk : Integral operators defined on metric spaces;

- 2002 (September 25-28), Autumn Conference Mathematical Society of Japan, Shimane University, Matsue,(Japan), (Invited Speaker),

  Title of talk: Discretization and anti-discretization of function spaces;

- 2002 (May 22-30), International Conference in Analysis in honor of Y.Brudnyi, Technion, Haifa (Israel),(Speaker),

  Title of talk: Duality principles in Lorentz spaces and embeddings;

- 2001 (June 28 - July 4), International Conference on Function Spaces, Differential Operators, and Nonlinear Analysis in honor of Hans Triebel on his 65th birthday, Teistungen (Germany)(Speaker),

  Title of talk: A new characterization of the associate space to $\Gamma^p(v)$;

- 2000 (August 17-22), Conference on Function Spaces, Interpolation Theory, and related topics, in honor of Jaak Peetre on his 65th birthday, Lund University, Sweden, (Speaker),

  Title of talk: Duality principles and reduction theorems;

- 1998 (May 31 -June 6), Spring School "Nonlinear analysis, Function Spaces, and Applications 6", Prague, Czech Republic, (Speaker),

  Title of talk: Certain Volterra integral operators in weighted rearrangement invariant Banach function spaces;

- 1996 (June 17-20), 5th International Conference on Harmonic Analysis and Partial differential equations, El Escorial, Spain, (Speaker),

  Title of talk: Two-weighted mixed inequalities in Orlicz classes for fractional maximal functions defined on homogeneous type spaces;

- 1995 (September 3-9), International conference of Function Spaces, Differential Operators and Nonlinear Analysis, Paseky nad Jizerou, Czech Republic, (Speaker),

Title of talk: Weighted inequalities for one– sided maximal functions in Orlicz classes;

- 1994 (May), Mathematical Institute, Academy of Sciences of the Czech Republic, Prague, (Speaker),

  Title of talk: Criteria of weight inequalities for integral transforms defined on homogeneous type spaces;

- 1994 (May 23-28), Spring School "Nonlinear analysis, Function Spaces, and Applications 5", Prague, Czech Republic,(Speaker),

  Title of talk: Criteria of weighted inequalities in Orlicz classes for maximal functions defined on homogeneous type;

- 1994 (May 2-6), International conference of Topological Vector Spaces, Algebras and Related Areas, McMaster University, Hamilton, Canada, (Speaker),

  Title of talk: Criteria of weight inequalities for integral transforms defined on homogeneous type spaces;

- 1991 (June 6-11), International symposium in Continuum Mechanics and Related Problems of Analysis. Tbilisi, Georgia, (Speaker),

  Title of talk: Weak type weighted inequalities for maximal functions with respect to the general basis;

- 1990 (May 21-25), Spring School "Nonlinear analysis, Function Spaces, and Applications 4", Roudnice nad Labem, Czechoslovakia,(Speaker),

  Title of talk: Hilbert transform in Zygmund classes, Maximal functions in Morrey-Campanato spaces.

Short stays and invited research visits:

- Tbilisi State University, Tbilisi, Georgia, 9 days in 2019; (Supported by Shota Rustaveli National Science Foundation);

- Pamukkale University, Çivril, Turkey, 7 days in 2019, (invited research visit, supported by TUBITAK);

- Ankara University, Turkey, 7 days in 2019, (invited research visit, supported by TUBITAK);

- Universidade de Coimbra, Portugal, 9 days in 2018, (invited research visit);

- South Asian University, New Delhi, India three weaks in 2018, (exchange program);

- Tbilisi State University, Tbilisi, Georgia, five weeks in 2018; (Supported by Shota Rustaveli National Science Foundation);

- Universidade de Coimbra, Portugal, 9 days in 2017, (invited research visit);

- Tbilisi State University, Tbilisi, Georgia, three visits five weeks in 2017; (Supported by Shota Rustaveli National Science Foundation);

- Universidade de Coimbra, Portugal, 8 days in 2016, (invited research visit);

- Tbilisi State University, Tbilisi, Georgia, two visits three weeks in 2016, (Supported by Shota Rustaveli National Science Foundation);

- Centre de Recerca Matematica (CRM), Bellaterra, Barcelona, Spain, one month in 2016, (invited research visit);

- University of Poitiers, Poitiers, France, one month in 2016, (visiting Professor);

- Ahi Evran University (Kirşehir), Turkey, 10 days in 2016, (exchange program);

- Friedrich-Schiller-University Jena,Germany, 4 days in 2015 (invited research visit);

- Institute of Mathematics of the Polish Academy of Sciences, Warsaw, Poland, 8 days in 2015 (exchange program);

- Tbilisi State University, Tbilisi, Georgia, two visits six weeks in 2015, (Supported by Shota Rustaveli National Science Foundation);

- Universidad Complutense de Madrid, 6 days in 2015, (invited research visit);

- Universidade de Coimbra, Portugal, two visits 16 days in 2015, (invited research visit);

- Kirikkale univeristy (Kirikkale) and Ahi Evran University (Kirşehir), Turkey, 14 days in 2015, (exchange program);

- Tbilisi State University, Tbilisi, Georgia, two visits six weeks in 2014, (Supported by Shota Rustaveli National Science Foundation);

- Akdeniz Univerity, Antalya, Turkey 6 days in 2014, (invited research visit);

- Beijing Normal Univerity, Beijing, China, 24 days in 2014, (exchange program);

- Karlstad University, Karlstad, Sweden, 6 days in 2014, (invited research visit);

- Ankara university(Ankara), Kirikkale univeristy (Kirikkale) and Ahi Evran University (Kirşehir), Turkey, 9 days in 2014, (exchange program);

- Lulea University of Technology, Sweden. 9 days in 2014, (invited research visit);

- Universidad Complutense de Madrid, 8 days in 2013, (invited research visit);

- Tbilisi State University, Tbilisi, Georgia, three weeks in 2013, (Supported by Shota Rustaveli National Science Foundation);

- Tbilisi State University, Tbilisi, Georgia, four weeks in 2013, (Supported by Shota Rustaveli National Science Foundation);

- Universidade de Coimbra, Portugal, two weeks in 2013, (invited research visit);

- Tbilisi State University, Tbilisi, Georgia, three visits all together nine weeks in 2013, (Supported by Shota Rustaveli National Science Foundation);

- Ankara university(Ankara), Kirikkale univeristy (Kirikkale) and Ahi Evran University (Kirşehir), Turkey, 10 days in 2013, (exchange programme);

- Lulea University of Technology, Sweden. two weeks in 2013, (invited research visit);

- Istituto per le Applicazioni del Calcolo "Mauro Picone" - UOS di Napoli, Italy, 8 days in 2012, (invited research visit);

- L.N. Gumilyov Eurasian National University, Astana, Kazakhstan, two weeks in 2012, (invited research visit);

- Tbilisi State University, Tbilisi, Georgia, foure weeks in 2012, (Supported by Shota Rustaveli National Science Foundation);

- Universidade de Coimbra, Portugal, two weeks in 2012, (invited research visit);

- Ankara univerity(Ankara), Kirikkale univeristy (Kirikkale) and Ahi Evran University (Kirşehir), Turkey, 10 days in 2012, (exchange programme);

- Tbilisi State University, Tbilisi, Georgia, three weeks in 2012, (Supported by Shota Rustaveli National Science Foundation);

- Lulea University of Technology, Sweden. 8 days in 2012, (invited research visit);

- Cardiff University, Cardiff, UK, one week in 2012, (invited research visit);

- Lulea University of Technology, Sweden. 10 days in 2011, (invited research visit);

- Centre de Recerca Matematica (CRM), Bellaterra, Barcelona, Spain, one month in 2011, (invited research visit);

- Universidade de Coimbra, Portugal, two weeks in 2011, (exchange program);

- Universidade de Coimbra, Portugal, two weeks in 2010, (exchange program);

- Jyväskilä University, 10 days in 2010, (invited research visit);

- Lulea University of Technology, Sweden. two visits four weeks in 2010, (invited research visit);

- Ahi Evran University, Kirşehir, Turkey, one week in 2010, (invited research visit);

- Universidad Complutense de Madrid, 10 days in 2010, (invited research visit);

- Universidade de Coimbra, Portugal, two weeks in 2009, (exchange program);

- Universidade de Aveiro, Portugal, one week in 2008, (exchange program);

- Universidade de Coimbra, Portugal, one week in 2008, (exchange program);

- Brock University, St.Catharines, Canada, two months in 2008 (invited research visit);

- Cardiff University , Wales, UK, one week in 2007, (research visit supported by INTAS gran);

- Universidade de Coimbra, Portugal, one week in 2007, (exchange program);

- Universidade de Aveiro, Portugal, one week in 2007, (exchange program);

- University of Helsnki, Finland, one week in 2007, (exchange program);

- University of Jyväskylä, Jyväskylä, Finland, four weeks in 2007 (exchange program);

- Universidade de Coimbra, Portugal, one week in 2006, (exchange program);

- Universidade de Aveiro, Portugal, one week in 2006, (exchange program);

- University of Barcelona, Spain, one week in 2006, (invited research visit);

- University of Helsinki, Finland, one week in 2005, (invited research visit);

- University of Jyväskylä, Jyväskylä, Finland, four weeks in 2005 (exchange program);

- Friedrich-Schiller-University Jena, Jena, Germany, one week in 2005 (invited research visit);

- Lulea University of Technology, Sweden, two weeks in 2004, (invited research visit);

- Universidade de Coimbra, Portugal, two weeks in 2004, (invited research visit);

- Universidade de Aveiro, Portugal, two weeks in 2004, (invited research visit);

- Cardiff University , Wales, UK, one week in 2004, (research visit supported by Leverhulme Trust Grant);

- Technion, Haifa, Israel, three weeks in 2004, (exchange program);

- Weizmann Institute of Science, Rehovot, Israel, one week in 2004, (exchange program);

- University of Jyväskylä, Jyväskylä, Finland, three weeks in 2003 (exchange program);

- Cardiff University, Cardiff, UK, two weeks in 2003 (research visit supported by Leverhulme Trust Grant);

- Weizmann Institute of Science, Rehovot, Israel, three weeks in 2003 (exchange program);

- Okayama University, Okayama, Japan, tree weeks in 2002 (exchange program);

- Osaka Kyoiku University, Osaka, Japan, one week in 2002 (exchange program);

- Hokkaido University, Sapporo, Japan, one week in 2002 (exchange program);

- Waseda University, Tokyo, Japan, one week in 2002 (exchange program);

- Nara Women's University, Nara, Japan, one week in 2002 (exchange program);

- Weizmann Institute of Science, Rehovot, Israel, one week in 2002 (research visit supported by NATO);

- Cardiff University, Cardiff, UK, two weeks in 2002 (research visit supported by Leverhulme Trust Grant);

- Cardiff University, Cardiff, UK, tree weeks in 2001 (research visit supported by Leverhulme Trust Grant);

- Brock University, St.Catharines, Canada, two months in 2001(invited research visit);

- McMaster University, Hamilton, Canada, one week in 2001 (invited research visit);

- Sussex University, Brighton, UK, one week in 1998 (invited research visit);

- Sussex University, Brighton, UK, one week in 1997 (invited research visit);

- McMaster University, Hamilton, Canada, one week in 1994 (invited research visit);

- Brock University, St.Catharines, Canada, two months in 1994(invited research visit).

Publication activity

Monographs

1. I. Genebashvili, A. Gogatishvili, V. Kokilashvili and M. Krbec

   Weight theory for integral transforms on spaces of homogeneous type. Pitman Monographs and Survey in Pure and Applied Mathematics 92, Longman, Harlow, 1998. MR1791462 (2003b:42002)

2. W.D. Evans, A. Gogatishvili and B. Opic.

   Weighted inequalities involving ρ-quasiconcave operators. World Scientific Publishing Co. Pte. Ltd., Hackensack, NJ, 2018. xv+140 pp. MR3823807

Research papers in academic journal

3. A. Gogatishvili

   Fractional maximal functions with respect to the basis of the convex comperable sets in weighted Lebesgue spaces, (Russian. English and Georgian Summaries), Soobshch. Akad. Nauk Grusin. SSR, 129(1988), no. 2, 273 – 275. MR0953054 (89g:42033)

4. A. Gogatishvili

   Weighted inequalities for potentials in spaces of homogeneous type, (Russian. English and Georgian Summaries), Soobshch. Akad. Nauk Grusin. SSR, 129(1988), no. 3, 493 – 495. MR0953066 (89i:42033)

5. A. Gogatishvili

   Riesz transforms and maximal functions in $\varphi(L)$ classes, (Russian and Georgian Summaries), Soobshch. Akad. Nauk Grusin. SSR, 137(1990), no. 3, 489 - 492. MR1087544 (91j:42009)

6. A. Gogatishvili, V.Kokilashvili and M.Krbec

   Maximal functions in the classes $\varphi(L)$, (English, Russian original), Soviet Math. Dokl., 42(1991), no. 2, 488 – 490; translation from Dokl. Akad. Nauk SSSR, 314(1990), no. 3, 534 – 536. MR1094013 (92c:42018)

7. A. Gogatishvili

   Maximal functions with respect to the basis of the comperable convex sets in weighted Lebesgue spaces, (Russian. English Summary), Trudy Tbiliss. Mat. Inst. Razmadze Akad. Nauk Grusin. SSR, 95(1990), 20 – 38. MR1119755 (92h:42034)

8. A. Gogatishvili

   Weighted inequalities for vector-valued fractional maximal functions, (Russian. English Summary), Trudy Tbiliss. Mat. Inst. Razmadze Akad. Nauk Grusin. SSR, 98(1991), 9 – 18. MR1221298 (94e:26037)

9. A. Gogatishvili

   Weak type weighted inequalities for maximal functions with respect to the general basis, (Russian and Georgian Summaries), Soobshch. Akad. Nauk Grusin. SSR, 145(1992), no. 2, 249 – 252. MR1248367 (94m:42040)

10. A. Gogatishvili

    General weak–type inequalities for maximal operator and Riesz transforms, (Russian and Georgian Summaries), Soobshch. Akad. Nauk Grusin. SSR, 146(1992), no. 3, 497 – 500. MR1247940 (94m:42041)

11. A. Gogatishvili

    General weak type inequalities for maximal operators and singular integrals, (Georgian Summary), Proc. A.Razmadze Math. Inst., 101(1992), 47 – 63. MR1251273 (95e:42015)

12. A. Gogatishvili

    Riesz transforms and maximal functions in $\varphi(L)$ classes, (Georgian Summary), Proc. A.Razmadze Math. Inst., 102(1993), 59 – 70. MR1268817 (95d:42024)

13. A. Gogatishvili

   Hilbert transform in Zygmund classes, (Georgian Summary), Proc.
   A.Razmadze Math. Inst., 102(1993), 71 – 84. MR1268818 (95d:47065)

14. A. Gogatishvili, V. Kokilashvili and M. Krbec

   Maximal functions, $\varphi(L)$ classes and Carleson measures, (Georgian
   Summary), Proc. A.Razmadze Math. Inst., 102(1993), 85 – 97.
   MR1268819 (95e:42016)

15. A. Gogatishvili, L.Pick

   Weighted inequalities of weak and extra-weak type for the maximal op-
   erator and Hilbert transform, Czechoslovak Math. J., 43(118) (1993),
   no.3, 547 – 566. MR1249621 (95i:42013)

16. I. Genebashvili, A. Gogatishvili and V. Kokilashvili

   Criteria of general weak type inequalities for integral transforms with
   positive kernels, (English and Georgian Summaries), Proc. Georgian
   Acad. Sci., Math., 1 (1993), no. 1, 11 – 35; Georgian Math. J., 1(1994),
   no. 1, 9 – 29. MR1251491 (94j:42030)

17. A. Gogatishvili, V. Kokilashvili

   Criteria of weighted inequalities in Orlicz classes for maximal func-
   tions defined on homogeneous type spaces, (English and Georgian Sum-
   maries), Proc. Georgian Acad. Sci., Math., 1(1993), no. 6, 721 – 755;
   (English Summary), Georgian Math. J., 1(1994), no. 6, 641 – 673.
   MR1296573 (96b:42021)

18. A. Gogatishvili, V. Kokilashvili

   Necessary and sufficient conditions for weighted Orlicz class inequalities
   for maximal functions and singular integrals I, (English Summary),
   Georgian Math. J., 2(1995), no. 4, 361 – 384. MR1344301 (96g:42010)

19. A. Gogatishvili, V. Kokilashvili

   Necessary and sufficient conditions for weighted Orlicz class inequalities
   for maximal functions and singular integrals II, (English Summary),
   Georgian Math. J., 2(1995), no. 5, 445 – 468. MR1351334 (96m:42031)

20. I. Genebashvili, A. Gogatishvili and V. Kokilashvili

Solution of two-weight problems for integral transforms with positive kernel, (English Summary), Georgian Math. J., 3(1996), no. 4, 319 – 342. MR1397815 (97k:42029)

21. I. Genebashvili, A. Gogatishvili and V. Kokilashvili

Criteria of two-weighted inequalities for integral transforms with positive kernel and maximal functions, (English, Russian original) Dokl. Math., 54(1996), no. 3, 895 – 898, translation from Dokl. Akad. Nauk RAN, 351(1996), no.4, 448 – 451. MR1469056 (99c:42030)

22. A. Gogatishvili and V. Kokilashvili

Criteria of strong type two-weighted inequalities for fractional maximal functions, (English Summary), Georgian Math. J., 3(1996), no. 5, 423 – 446. MR1407384 (98m:42020)

23. A. Gogatishvili

Two-weighted mixed inequalities in Orlicz classes for fractional maximal functions defined on homogeneous type spaces, (English and Georgian Summaries), Proc. A.Razmadze Math. Inst., 112(1997), 23 – 56. MR1468961 (98m:42021)

24. A. Gogatishvili

Maximal functions and singular integrals on $L^{p,\varphi}$ spaces, Proc. A.Razmadze Math. Inst., 114(1997), 112 – 115. MR1638706 (99i:46017)

25. A.Gogatishvili and J.Lang

The generalized Hardy operator with kernel and variable integral limits in Banach function spaces, J. Inequal. Appl., 4(1999), no. 1, 1 – 16. MR1733113 (2001f:47085)

26. A. Gogatishvili

Fractional maximal functions in weighted Banach function spaces, Real Analysis and Exchange, 25(1999/2000), no.1, 291 – 316. MR1758007 (2001g:42029)

27. A.Gogatishvili and L.Pick

Duality principles and reduction theorems, Math. Inequal. Appl., 3(2000), no. 4, 539 – 558. MR1786395 (2002c:46056)

28. A.Gogatishvili and T.Sobukawa

On the extrapolation estimates, Math. Inequal. Appl., 6(2003), no. 1, 97 – 104. MR1950654 (2003k:46030)

29. A.Gogatishvili and L.Pick

Discretization and antidiscretization of rearrangement–invariant norms, Publ. Mat., 47(2003), no. 2, 311 – 358. MR2006487 (2005f:46053)

30. A. Gogatishvili, A. Kufner, L.-E. Persson and A. Wedestig

An equivalence theorems for some scales of integral conditions related to Hardy's inequality with applications, Real Analysis and Exchange, 29(2003/04), no. 2, 867 – 880. MR2083821 (2005f:26043)

31. A. Gogatishvili, J. S. Neves and B. Opic

Optimality of embeddings of Bessel-potential-type spaces into Lorentz-Karamata spaces, Proc. Roy. Soc. Edinburgh Sec. A, 134(2004), no. 6, 1127 – 1147. MR2107486 (2005h:46044)

32. A. Gogatishvili, B. Opic and W. Trebels

Limiting reiteration for real interpolation with slowly varying functions, Math. Nachr., 278(2005), no. 1-2, 86 – 107. MR2111802 (2005k:46048)

33. A. Gogatishvili, J. S. Neves and B. Opic

Optimality of embeddings of Bessel-potential-type spaces into generalized Hölder spaces, Publ. Mat., 49(2005), no. 2, 297 – 327. MR2177070 (2006f:26002)

34. M. J. Carro, A. Gogatishvili, J. Martin and L. Pick

Function properties of rearrangement invariant spaces defined in term of oscillations, J. Funct. Anal., 229(2005), no. 2, 375 – 404. MR2182593 (2006g:46051)

35. A. Gogatishvili and P. Koskela

   A non-doubling Trudinger inequality, Studia Math., 170(2005), no. 2, 113 – 119. MR2184101 (2007b:26041)

36. A. Gogatishvili and L. Pick

   Embeddings and duality theorems for weak classical Lorentz spaces, Canad. Math. Bull., 49(2006), no. 1, 82 – 95. MR2198721 (2006k:26024)

37. A. Gogatishvili, A. Kufner, L.-E. Persson and A. Wedestig

   Compactness of the Hardy operator and its limiting case, Soochow J. Math., 32(2006), no. 1, 21 – 35. MR2218524 (2006m:26031)

38. A. Gogatishvili, B. Opic and L. Pick

   Weighted inequalities for Hardy-type operators involving suprema, Collect. Math., 57(2006), no.3, 227 – 255. MR2264321 (2007g:26019)

39. A. Gogatishvili and V.I. Ovchinnikov

   The optimal embedding for the Calderon type spaces and the J-method spaces, Vestnik VGU, Ser. Phys. Math., 2006. no. 1, p.145 – 151.

40. A. Gogatishvili, J. S. Neves and B. Opic

   Sharpness and non-compactness of embeddings of Bessel-potential-type spaces, Math. Nachr., 280(2007), no. 9-10, 1083 – 1093. MR2334661 (2008f:46044)

41. A. Gogatishvili, M. Johansson, C. A. Okpoti and L.-E. Persson

   Characterization of embeddings in Lorentz spaces, Bull. Austral. Math. Soc., 76 (2007), no. 1, 69 – 92. MR2343440 (2008j:46017)

42. A. Gogatishvili and L. Pick

   A reduction theorem for supremum operators, J. Comput. Appl. Math., 208(2007), no.1, 270 – 279. MR2347749 (2009a:26013)

43. A.Gogatishvili and V.I.Ovchinnikov

   Interpolation orbits and optimal Sobolev's embeddings, J. Funct. Anal., 253(2007) no. 1, 1 – 17. MR2362416 (2008k:46096)

44. W. D. Evans, A. Gogatishvili and B. Opic

   The reverse Hardy inequality with measures, Math. Inequal. Appl., 11(2008), no. 1, 43 – 74. MR2376257 (2008m:26029)

45. A. Gogatishvili, K. Kuliev and G. Kulieva

   Some conditions characterizing the "Reverse" Hardy inequality, Real Anal. Exchange, 33(2007/2008), no. 1, 249 – 258. MR2402877 (2009b:26030)

46. M. Carro, A. Gogatishvili, J. Martin and L. Pick

   Weighted inequalities involving two Hardy operators with applications to embeddings of function spaces, J. operator Theory, 59(2008), no. 2, 309 – 332. MR2411048 (2009f:26024)

47. A. M. Caetano, A. Gogatishvili and B. Opic

   Sharp embeddings of Besov spaces involving only logarithmic smoothness, J. Approx. Theory, 152(2008), no. 2, 188 – 214. MR2422148 (2010c:46079)

48. A.Gogatishvili, J.S.Neves and B.Opic

   Optimal embeddings and Compact embeddings of Bessel-potential-type spaces, Math. Zeitshrift, 262(2009), no. 3, 645 – 682. MR2506313 (2010c:46074)

49. A. Gogatishvili, A. Kufner and L.E. Persson

   Some new scales of weight characterizations of the class B_p, Acta Math. Hungar., 123(2009), no.4, 365 – 377. MR2506756 (2010b:42021)

50. A.Gogatishvili and L.Pick

   Calderon-type theorems for operators of non-standard endpoint behavior, Indiana Univ. Math. J., 58(2009), no.4, 1831 – 1852. MR2542981 (2010i:46117)

51. A.Gogatishvili, P. Koskela and N. Shanmugalinam

   Interpolation properties of Besov spaces on metric spaces, Math. Nachr., 283(2010), no. 2, 215 – 231. MR2542981 (2010i:46117)

52. A.Gogatishvili, J.Neves and B.Opic

Optimal embeddings of Bessel-potential-type spaces into generalized Holder spaces involving k-modulus of smoothness, Potential Anal., 32(2010), no 3, 201 – 228. MR2595366 (2011d:46061)

53. A. Gogatishvili, A. Kufner and L.E. Persson

Some new scales of charachterization of Hardy's inequality, Proc. Est. Acad. Sci., 59(2010), no. 1, 7 – 18. MR2647852 (2011d:26038)

54. A. Gogatishvili, J.Neves and B.Opic

Sharp estimates of the k-modulus of smoothness of Bessel potentials, J. London Math. Soc., 81(2010), no.3, 608 – 624. MR2650787 (2011k:46040)

55. V. Burenkov, A. Gogatishvili, V. Guliyev and R. Mustafayev

Boundedness of the fractional maximal operator in local Morrey-type spaces, Complex Var. Elliptic Equ., 55(2010), no. 8-10, 739 – 758. MR2674862 (2011f:42015)

56. A.Gogatishvili, J.Neves and B.Opic

Compact embeddings of Bessel-potential-type spaces into generalized Hölder spaces involving k-modulus of smoothness, Z. Anal. Anwend., 30(2011), no.1, 1 – 27. MR2764931 (2012c:46052)

57. V.Burenkov, A.Gogatishvili, V.Guliyev and R.Mustafayev

Sufficient conditions for boundedness of the Riesz potential in local Morrey-type spaces, Potential Anal., 35(2011), no. 1, 67 – 87. MR2804553 (2012d:42027)

58. A. Gogatishvili, R. Mustafayev.

On a theorem of Muchenhoupt-Wheeden in generalized Morrey spaces, Eurasian Math. J., 2(2011), no. 2,134 – 138. MR2910836

59. A.Caetano, A. Gogatishvili and B. Opic

Embeddings and the growth envelope of Besov spaces involving only slowly varying smoothness, J. Approx. Theory, 163(2011), no. 10, 1373 – 1399. MR2832731 (2012h:46060)

60. A.Gogatishvili and R. Mustafayev

Dual spaces of local Morrey-type spaces, Czechoslovak Math. J., 61(2011), no. 3, 609 – 622. MR2853078

61. A.Caetano, A. Gogatishvili and B. Opic

Compact embeddings of Besov spaces involving only slowly varying smoothness, Czechoslovak Math. J., 61(136)(2011), no. 4, 923 – 940. MR2886248

62. A.Gogatishvili and R. Mustafayev

The multidimensional reverse Hardy inequalities, Math. Inequal. Appl., 15 (2012), no. 1, 1 – 14. MR2919426

63. A. Gogatishvili and R.Mustafayev

Equivalence of norms of Riesz potential and fractional maximal function in generalized Morrey spaces, Collectanea Mathematica, 63(2012), no. 1, 11 – 28. MR2887108

64. A.Gogatishvili, L.Pick and J.Schneider

Interpolation characterization of the rearrangement-invariant hull of a Besov space, Revista Matemática Complutense, 25(2012), no. 1, 267 – 283. MR2876928 (2012m:46041)

65. A.L. Bernardis, A. Gogatishvili, F.-J. Martín-Reyes, P. Ortega Salvador and L. Pick

The one-sided A_p conditions and local maximal operator, Proceedings of the Edinburgh Mathematical Society, 55(2012), no. 1, 79 – 104. MR2888442

66. A.Gogatishvili and V. D. Stepanov.

Operators on cones of monoton functions, Doklady Mathematics, 86(2012), no. 1, 562 – 565, translation from Dokl. Akad. Nauk., 445 (2012), no. 6, 618 – 621. MR3050526

67. A.Gogatishvili and V. D. Stepanov

On integral operators on the cones of monotone functions, Doklady Mathematics, 86(2012), no. 2, 650 – 653, translation from Doklady Akademii Nauk, 446(2012), no. 4, 367 – 370. MR3053208

68. A. Gogatishvili, L.-E. Persson, V. D. Stepanov and P. Wall

    On scales of equivalent conditions characterizing weighted Stieltjes inequality, Doklady Mathematics, 86(2012), no. 3, 738 – 739, translation from Dokl. Akad. Nauk. 447(2012), no. 1, 13 – 14. MR3075082

69. A. Gogatishvili, R. Mustafayev and L.-E. Persson,

    Some new iterated Hardy-type inequalities, Journal of Function Spaces and Applications, vol. 2012, Article ID 734194, 30 pages, 2012. MR3000818

70. A.Gogatishvili and R.Mustafayev

    New pre-dual space of Morrey Space, J. Math. Anal. Appl., 397(2013), no. 2, 678 – 692. MR2979604

71. F.Cobos, A.Gogatishvili, B.Opic and L.Pick

    Interpolation of uniformly absolutely continuous operators, Math. Nachr., 286(2013), no. 5-6, 579 – 599. MR3048133

72. A.Gogatishvili, A. Kufner and L.-E. Persson

    The weighted Stieltjes inequality and applications, Math. Nachr., 286(2013), no. 7, 659 – 668. MR3060837

73. A. Fiorenza, A. Gogatishvili, and T. Kopaliani

    Boundedness of Stein's spherical maximal function in variable Lebesgue space and application to the wave equation, Arch. Math., 100(2013), no. 5, 465 – 472. MR3057132

74. . A. Gogatishvili and V.D. Stepanov

    Reduction theorems for operators on the cones of monotone functions, J. Math. Anal. Appl., 405 (2013), no. 1, 156 – 172. MR3053495

75. A. Gogatishvili, P. Koskela and Y. Zhou

    Characterizations of Besov and Triebel-Lizorkin Spaces on Metric Measure Spaces, Forum Math., 25(2013), no. 4, 787 – 819. MR3089750

76. A. Gogatishvili and R. Mustafayev

    New characterization of Morrey Space, Eurasian Math. J., 4(2013), no.1, 54 – 64. MR3118891

77. A. Gogatishvili and V. D. Stepanov

Reduction theorems for weighted integral inequalities for the cones of monotone functions, Russian Math. Surveys, 68(2013), no. 4, 597 – 664, translation from Uspekhi Mat. Nauk 68(2013), no. 4, 3 – 68. MR3154814

78. A. Gogatishvili, R. Mustafayev and L.-E. Persson

Some new iterated Hardy-type inequalities: the case $\theta = 1$, J. Inequal. Appl., 2013(2013), no 515.

79. A. Gogatishvili, L.-E. Persson, V. D. Stepanov and P. Wall

Some scales of equivalent conditions to characterize the Stieltjes inequality: the case $q < p$, Math. Nachr., 287(2014), no. 2-3, 242 – 253. MR3163577

80. A.Gogatishvili, A. Danelia and T. Kopaliani

Local Hardy-Littlewood maximal operator variable Lebesgue spaces, Banach Journal of Mathematical Analysis, 8(2014), no.2, 229 – 244. MR3189553

81. A. Gogatishvili and R. Kerman

The Rearrangement-Invariant space, Positivity, 18 (2014), no. 2, 319 – 345. MR3215181

82. A.Gogatishvili, B.Opic, S.Tikhonov, and W.Trebels.

Ulyanov-type inequalities between Lorentz-Zygmund spaces, J. Fourier Anal. Appl., 20(2014), no. 5, 1020 – 1049. MR3254611

83. A. Fiorenza, A. Gogatishvili and T. Kopaliani,

Some estimates for imaginary powers of Laplace operators in variable Lebesgue spaces and applications, Izv. Nats. Akad. Nauk Armenii Mat. 49 (2014), no. 5, 11 – 2; reprinted in J. Contemp. Math. Anal. 49 (2014), no. 5, 232 – 240. MR3379555

84. A.Gogatishvili, L.Pick and F. Soudský

Characterization of associate spaces of weighted Lorentz spaces with applications, Studia Mathematica 224 (2014), no. 1, 1 – 23. MR3277050

85. A.Gogatishvili and F. Soudský.

   Normability of Lorenz spaces-an alternative approach, Czechoslovak Math. J. 64(139) (2014), no. 3, 581 – 597. MR3298548

86. A. Gogatishvili, U. Goginava and G. Tephnadze.

   Relations between some classes of functions of generalized bounded variation. Function spaces X, 89 – 98, Banach Center Publ., 102, Polish Acad. Sci. Inst. Math., Warsaw, 2014. MR3379555

87. A.Gogatishvili and T.Kopaliani.

   On the Rubio De Francia's theorem in varible Lebesgue spaces, Bull. TICMI 18 (2014), no. 1, 3 – 10. MR3409427

88. A. Gogatishvili, S. D. Moura, J. S. Neves and B. Opic

   Embeddings of Sobolev-type spaces into generalized Hölder spaces involving k-modulus of smoothness, Ann. Mat. Pura Appl. (4) 194 (2015), no. 2, 425 – 450. MR3322429

89. M. Ağcayazi, A. Gogatishvili, K. Koca and R. Ch. Mustafayev

   Commutators of maximal function, J. Math. Soc. Japan 67 (2015), no. 2, 581 – 593. MR3340187

90. F. Dai, A. Gogatishvili, D. Yang and W. Yuan

   Characterizations of Sobolev Spaces via Averages on Balls, Nonlinear Anal. 128 (2015), 86 – 99. MR3399519

91. A.Gogatishvili, C. Aykol and V.S. Guliyev

   Characterization of associate spaces of generalized weighted weak-Lorentz Spaces and embeddings, Studia Math. 228 (2015), no. 3, 223 – 233. MR3432285

92. F. Dai, A. Gogatishvili, D. Yang and W. Yuan

   Characterizations of Besov and Triebel-Lizorkin Spaces via Averages on Balls, J. Math. Anal. Appl. 433 (2016), no. 2, 1350 – 1368. MR3398768

93. D. Edmunds, A. Gogatishvili, T. Kopaliani and N. Samashvili

    Some s-numbers of an integral operator of Hardy type in Banach function spaces, J. Approx. Theory 207 (2016), 76 – 97. MR3494223

94. A. Gogatishvili, and T. Kopaliani,

    Maximal multiplier operators in $L_{p(.)}(\mathbb{R}_n)$ spaces, Bull. Sci. Math. 140 (2016), no. 4, 86 – 97, MR3498310

95. A.Gogatishvili and R.Ch. Mustafayev

    A note on boundedness of the Hardy-Littlewood maximal operator on Morrey spaces, Mediterr. J. Math. 13 (2016), no. 4, 1885 – 1891. MR3530905

96. A. Caetano, A. Gogatishvili and B. Opic

    Compactness in quasi-Banach function spaces and applications to compact embeddings of Besov-type spaces, Proc. Roy. Soc. Edinburgh Sect. A 146 (2016), no. 5, 905 – 927. MR3569143

97. A.Gogatishvil and R.Ch. Mustafayev

    Weighted iterated Hardy-type inequalities, Math. Inequal. Appl. 20(2017) no. 3, 683 – 726. MR3653914

98. A.Gogatishvil and R.Ch. Mustafayev

    Iterated Hardy-type inequalities involving suprema, Math. Inequal. Appl. 20(2017), no. 4, 901 – 927. MR3711402

99. A. Gogatishvili, R.Ch. Mustafayev, T. Ünver.

    Embeddings between weighted complementary local Morrey-type spaces and weighted local Morrey-type spaces, Eurasian Math. J. 8(2017), no. 1, 34 – 49. MR3663345

100. A. Gogatishvili, M. Křepela, L. Pick and F. Soudsky:

     Embeddings of Lorentz-type spaces involving weighted integral means, J. Funct. Anal. 273 (2017), no. 9, 2939 – 2980. MR3692326

101. A. Gogatishvili, R. Mustafayev and T. Ünver

     Embeddings between weighted Copson and Cesáro function spaces, Czech Math J. 67(2017), no. 4, 1105 – 1132. MR3736022

102. A. Fiorenza, M. R. Formica and A. Gogatishvili

On grand and small Lebesgue and Sobolev spaces and some applications to PDEs, Differential Equations & Applications 10 (1), 2018, 21 – 46. MR3765429

103. A. Gogatishvili, R.Ch. Mustafayev and M. Ağcayazi

Weak-type estimates in Morrey spaces for maximal commutator and commutator of maximal function, Tokyo J. of Math. 41 (2018), no. 1, 193 – 218. MR3830814

104. A. Fiorenza, M. R. Formica, A. Gogatishvili, T. Kopaliani and J.M.Rakotoson

Characterization of interpolation between Grand, small or classical Lebesgue spaces, Nonlinear Analysis 177 (2018), Part B, 422 – 453. MR3886583

105. D. Edmunds, A.Gogatishvili and T.Kopaliani

Construction of function spaces close to L^∞ with associate space close to L^1, J. Fourier Anal. Appl. 24 (2018), no. 6, 1539 – 1553. MR3881841

106. A. Gogatishvili, J.S. Neves and B.Opic

Characterization of embeddings of Sobolev-type spaces into generalized Hölder spaces defined by L^p-modulus of smoothness, J. Funct. Anal. 276 (2019), no 2, 636 – 657. MR3906286

107. A. Gogatishvili and T. Ünver

Embeddings Between weighted local Morrey-type spaces, Nonlinear Studies (NS), 26 (2019), no. 4, 805 – 819. MR4039869

108. A. Gogatishvili, R. Mustafayev and T. Ünver

Pointwise multipliers between weighted Copson and Cesáro function spaces. Math. Slovaca 69 (2019), no. 6, 1303 – 1328. MR4045520

109. A. Gogatishvili and J. S. Neves

Weighted norm inequalities for positive operators restricted on the cone of λ-quasiconcave functions, Proc. Roy. Soc. Edinburgh Sect. A, 150 (2020), no. 1, pages 17 – 39. MR4065074

110. I. Ahmed, A. Fiorenza, M. R. Formica, A. Gogatishvili, and J.M.Rakotoson

    Some new results related to Lorentz $G\Gamma$-spaces and interpolation. J. Math. Anal. Appl. 483 (2020), no. 2, 123623. MR4026493

111. A. Gogatishvili, M. Křepela, R. Oľhava and L. Pick

    Weighted inequalities for discrete iterated Hardy operators. Mediterr. J. Math. 17 (2020), no. 4, Paper No. 132. MR4132569

112. A.Gogatishvili, P. Jain and S. Kanjilal

    On Bilinear Hardy Inequality and Corresponding Geometric Mean Inequality, Ricerche mat (2020). https://doi.org/10.1007/s11587-020-00536-2

Papers accepted for publication

113. A. Gogatishvili

    On stability of Lions-Peetre's real interpolation method with function parameter. Preprint IM-2020-7, Institute of Mathematics of the Czech Academy of Sciences, Prague 2020, pp 19. Accepted in Pure and Applied Functional Analysis.

114. A. Gogatishvili, L. Pick and T. Ünver

    Weighted inequalities for discrete iterated kernel operators, Preprint IM-2019-46, Institute of Mathematics of the Czech Academy of Sciences, Prague 2019, pp 29. Accepted in Math. Nachr.

Preprints and papers submitted for publication

115. A. Gogatishvili and R. Kerman

    A new gauge functional characterizing a given Orlicz class, Preprint 241, Institute of Mathematics, AS CR, Prague. 2011-3-23 , pp. 8.

    http://www.math.cas.cz/preprint/pre-241.pdf

116. A.Gogatishvili and T.Kopaliani

Extensions of Rubio De Francia's extrapolation theorem in variable Lebesgue spaces and application Preprint arXiv:1407.5216v1

Papers in conference proceedings

117. A. Gogatishvili

Fractional maximal functions with respect to the basis of the convex comperable sets in weighted Lebesgue spaces (Russian). In the book of collected works: Extremal problems, functional analyses and their applications, Moscow State University press 1988, pp.38 – 40.

118. A. Gogatishvili

Potentials in weighted Lorentz spaces for critical exponent (Russian). In: Reports of Enlarged Sessions of the Seminar of I. N. Vekua Institute of Applied Mathematics vol. 3, no 2, Tbilisi University press 1988, pp.25 – 28.

119. A. Gogatishvili

Riesz transforms and maximal functions in Morrey-Campanato type spaces and in weighted Zygmund spaces. In: Reports of Enlarged Session of the Seminar of I.N. Vekua institute of Applied mathematics, vol. 5, no 2, Tbilisi University press 1990, pp. 41 – 43.

120. A. Gogatishvili.

Riesz transforms in weighted $L \log L$ classes (Russian). In: Union School on Operator Theory in Function Spaces, Abstracts of Lectures, Ulyanovsk 5.-12.9. 1990, p. 68.

121. A. Gogatishvili

Weighted weak type inequalies for a strong maximal function. In: Abstracts of Symposium on continuum mechanics and related problems analysis, Tbilisi, 1991, p.52.

122. A. Gogatishvili

General weak–type inequalities for the maximal operators defined in spaces of the homogeneous type. In: Reports of Enlarged Sessions of the Seminar of I.N. Vekua Institute of Applied Mathematics, vol. 7, no. 2, Tbilisi University press 1992, pp. 14 – 16.

123. I. Genebashvili, A. Gogatishvili and V. Kokilashvili

Solutions of Some Weight Problems. Function spaces, differential operators and nonlinear analysis, (Friedrichroda, 1992), 264 – 273. Teubner–Texte Math., 133. Teubner, Stuttgart, 1993. MR1242588 (95a:42028)

124. A. Gogatishvili and V. Kokilashvili

Criteria of weight inequalities for integral transforms defined on on homogeneous type spases.Topological vector spaces, algebras and related areas, (Hamilton, ON, 1994), 251 – 262. Pitman Res. Notes Math. ser., 316, Longman Sci. Tech., Harlow, 1994. MR1319388 (96a:42021)

125. A. Gogatishvili

Weighted inequalities for one-sided maximal functions in Orlicz classes. Function spaces, differential operators and nonlinear analysis. Proceedings of the conference held in Paseky nad Jizerou, Czech Republic, September 3 – 9, 1995, Prague: Prometheus Publishing House, 201 – 205, 1996. MR1480940

126. A. Gogatishvili.

Discretization and anti-discretization of function spaces, In the proceedings of the The Autumn Conference Mathematical Society of Japan, September 25-28, 2002, Shimane University, Matsue, 63-72.

127. A. Gogatishvili, S. Moritoh, M. Niwa and T. Sobukawa

Interpolation theorems for block-Lorentz spaces. In the Proceedings of the International Symposium on Banach and Function Spaces, Kitakyushu, Japan, October 2-4, 2003, 215-223, Yokohama Publishers, 2004. MR2147608 (2006b:46023)

128. A. Gogatishvili, J. S. Neves and B. Opic

Optimality of embeddings of Bessel-potential-type spaces, "Function spaces, differential operators and and nonlinear analysis" Proceedings

of the conference held in Milovy, Czech Republic, May 28- June2, 2004, Mathematical Institue of the Academy of Sciences of the Czech Republic, Praha, 97-112, 2005.

129. A. Gogatishvili Integral operators on metric spaces, Lecture Notes, Workshop on Fractal Analysis, September, 11-17, 2005, in Stockhausen/ Eisenach (Germany).
http://users.minet.uni-jena.de/∼cfa/notes/goga_ln.pdf

130. A. Gogatishvili, A. Kufner and L.E. Persson

An equivalence theorems with application to Hardy's inequality. In the book "Function Spaces, Differencial Operators, General Topology, Problems of Mathematical Educations", Proceedings of the 3th International Conference dedicated to Lev Dmitrievich Kudryavtsev on the occasion of his eighty-fifth birthday, 278-298. M. 2008

131. W. D. Evans, A. Gogatishvili and B. Opic

The ρ-quasiconcave functions and weighted inequalities, Inequalities and Applications, Conference on Inequalities and Applications, Noszvaj (Hungary), September 2007.International Series of Numerical Mathematics, 157, Bandle, C., Gilányi, A., Losonczi, L., Páles, Z. and Plum, M.(eds.), Birkháuser Verlag, Basel, 2009. 121 – 132.