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PERSONAL INFORMATION

Name: Alexander Meskhi



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A.Razmadze Mathematical Institute, I. Javakhishvili Tbilisi State University, 6 Tamarashvili Str., 0177 Tbilisi, Georgia.

Kutaisi International University, Youth Ave. 5/7, Kutaisi 6400, Georgia

Sex M | Date of birth: May 2, 1972 | Nationality: Georgian

CURRENT POSITIONS

- (a) Chief Scientist- Researcher of A. Razmadze Mathematical Institute of I. Javakhishvili Tbilisi State University, Georgia.
- (b) Full Professor at the Kutaisi International University.

Work Experience

14 April 2020-up to now: Professor of Kutaisi International University

2018-up to now: Chief Scientific Researcher of A. Razmadze Mathematical Institute of I. Javakhishvili Tbilisi State University, Georgia

2009-April 2020 Full Professor of Georgian Technical University, Georgia

2016-up to now: Professor at San Diego State

University-Georgia

2010:	Visiting Professor at the University of Padua, Italy
2006-2014	Foreign Professor of Abdus Salam School of Mathematical Sciences, GC University, Lahore, Pakistan
2003- 2005	Postdoctoral position at Scuola Normale Superiore of Pisa, Italy
2000-2018:	Senior Researcher of A. Razmadze Mathematical Institute of I. Javakhishvili Tbilisi State University, Georgia
1998-2000	Researcher of A. Razmadze Mathematical Institute of I. Javakhishvili Tbilisi State University, Georgia

Languages

English: Fluently
Italian: Fluently
Russian: Fluently

Education

1995-1998	Post-graduate Student of A. Razmadze Mathematical Institute
1990-1995	Student of the Georgian Technical University

Academic and Scientific Degrees

2009	Professor
2001	Doctor of Sciences of Phys.-Math
1998	Degree of Candidate of Phys. Math (Ph.D.)

Main Research Fields

Functional Analysis; Harmonic Analysis and Applications in Partial Differential Equations

Main Research Topics

Weight Theory of Integral Operators in New Function Spaces; Applications in Nonlinear Partial Differential Equations

Awards

2012	Andrea Razmadze Prize of the Georgian National Academy of Sciences.
2009	

- 2002 Award of the Georgian
Mathematical Union for Young
Scientists.
- Prize of the Union of Georgian
Mathematicians for the Best
Scientific Works
- 2000: Euler Premium for young
scientists established by the
German Mathematical
Association (Germany).
- 1995 Diploma for winning the first
place in the students' republican
scientific-technological
conference

Research Grants

22.02.2019-21.02.2022	Rustaveli National Science Foundation Grant “New approaches in modern analysis on metric spaces, multidimensional and Applied Harmonic Analysis. Applications to PDEs” Project No. FR-18-2499.
13.12.2018- 12.12.2021	Rustaveli National Science Foundation Grant “New approaches in modern analysis on metric spaces, multidimensional and Applied Harmonic Analysis. Applications to PDEs”, Project No. FR-18-2499.
21.12.2018- 20.12.2021:	Rustaveli National Science Foundation Grant “ Integral Operators in Non-standard Function Spaces; New Aspects of Fourier Analysis and Wavelet Theory”, Project No. DI 18-118
25.08.2017 – 31.08.2017:	Study the boundedness of sublinear operators in grand Morrey spaces in the framework of doubling metric spaces, Pontificia Universidad Javeriana, Convocatoria n° 015 de 2017 - movilidad de profesores para desarrollar investigación con instituciones extranjeras, Project Number 7905
15.04.2013-14.04.2016:	Shota Rustaveli National Science Foundation Grant “Modern Problems of Harmonic Analysis, Approximation Theory and Integral Operator Theories in New Function Spaces”; Applications to the Boundary Value Problems (contract number 31/47)

2012-2014:	Shota Rustaveli National Science Foundation Grant, Integral operators and boundary value problems in new function spaces; new aspects in Fourier and wavelet theories (contract number D/13-23).
18.09.2011-24.09.2011:	Shota Rustaveli National Science Foundation Grant, Name of the Project: "8th International Conference on Function Spaces, Differential Operators, and Nonlinear Analysis", Project No. 11_tr_129.
01.01.2010-01.01.2013	Shota Rustaveli National Science Foundation Grant, "New aspects in function spaces, differential and integral operators and non-linear analysis, and applications in PDE", No. GNSF/ST09_23_3-100.
01.01.2008- 01.01.2010	Georgian National Foundation Grant "Some Topics of Harmonic and Non-linear Analysis in Non-standard Setting with Applications in Differential Equations" No. GNSF/ST07/3-169
01.01.2007-01.01.2009	INTAS grant : "Variable Exponent Analysis", Nr. 06-1000017-8792
2006-2008	Georgian National Science Foundation Grant, "Nonstandard function spaces and functions with applications to partial differential equations", No. GNSF/ST06/3-010

2008, 2009, 2010	GNAMPA, Italy
01.09. 2006-01.09.2008	INTAS grant: "Function spaces and applications to partial differential equations", No. 05-1000008-8157
1998, 2000-2004, 2006-2009	Georgian President's Grant for Young Scientists
2001-2002	An INTAS Fellowship grant for Young Scientists (Fellowship Reference No YSF 01/1-8)
1999, 2001	Grant of the Royal Society (UK)
1999-2003	Grant of the Georgian Academy of Sciences No. 1.7.
1997-1998	J. Soros Grant for Post-graduate Students

Scientific and Academic Visits

2019 (May 25-June 02)	University of Aveiro, Portugal
2018 (November 4-10)	Beijing Normal University, China
2018 (September 10-15)	Adam Mickiewicz University of Poznan, Poland
2018 (May 28-June 8)	Adam Mickiewicz University of Poznan, Poland.
2017 (August 23-28)	Pontificia Universidad Javeriana, Bogota, Columbia.
2016 (January 25- Feb.25)	San Diego State University, USA
2014 (October 7-16)	Adam Mickiewicz University of Poznan, Poland
2013 (June 23-July 2)	Adam Mickiewicz University of Poznan, Poland.
2010 (Sep. 30-Dec. 30)	University of Padova, Italy
2010 (May 15-June 15)	University of Padova, Italy
2009 (April 15- June 14)	University of Padova, Italy
2008 (January 14- Mar. 12)	University of Padova, Italy
2006 (Nov. 25- Dec. 5)	University of Pisa, Italy
2006 (July 2- July 15)	University of Sussex, UK
2005 (June 1- September 1)	Department of Mathematics, University of Pisa, Italy
2005 (January 23- Feb. 4)	University of Sussex (UK)

2004 (November)	University of Naples, department of mathematics (Italy)
2002 (June-July)	University of Sussex (UK)
2001 (April)	University of Sussex (UK)
1999 (March)	University of Sussex, Cardiff University (UK)
1998 (June 1- 7)	Mathematical Institute of the Czech Republic

Teaching Experience

- 2020- up to now: Kutaisi International University.
- 2016-up to now: San Diego State University-Georgia (Courses: Precalculus, Calculus1, Calculus 2, Calculus 3, Linear Algebra, Aerospace Engineering);
- 2009-up to now: Georgian Technical University (Courses: Interpolation Theory, Fourier series; Fourier Analysis; Inequalities in Real Analysis; Measure Theory for Master Students);
- 10.2010- 12.2010: University of Padova (“Mathematical Analysis 2”; “Function Theory 2”; “Interpolation theory and applications in Sobolev spaces and spaces with fractional regularity”).
- 10.2010- 12.2010: School of Galileo Galilei, University of Padova, Italy (Course “Measure Theory and Probability 1”).
- 15.04.2009- 15.06.2009: School of Galileo Galilei, University of Padova, Italy (Course “Fourier Analysis”).
- 15.01.2008- 15.03.2008: School of Galileo Galilei, University of Padova, Italy (Course “Inequalities of Real Analysis”)
- 2006-2014: School of Mathematical Sciences, GC University, Lahore, Pakistan (Courses: Functional Analysis, Measure Theory, Complex Analysis for PhD Students).
- 09.2005- 12.2005, 2016-2018: International Black Sea University, Tbilisi, Georgia (Course: Calculus, Differential Equations, Linear Algebra).
- 2001-2002: Tbilisi State University, Georgia, (Ordinary Differential Equations).

PhD Students of A. Meskhi:

- 2019- up to now: Giorgi Imerlishvili, Georgian Technical University
- Muhammad Asad Zaighum, Kernel operators in some new function spaces, Abdus Salam School of Mathematical Sciences, GC University, Lahore, Pakistan, 2014.
- Ghulam Murtaza, Title "Two-weight criteria for potentials with product kernels on the cone of non-increasing functions", Abdus Salam School of Mathematical Sciences, GC University Lahore, Pakistan, 2012.
- Muhammad Sarwar. Title of the thesis: "Maximal and potential operators in weighted Lebesgue spaces with nonstandard growth", Abdus Salam School of Mathematical Sciences, Lahore, 2011.
- Usman Ashraf. Title of the thesis: "On trace inequalities and compactness for potential-type operators." Abdus Salam School of Mathematical Sciences, Lahore, 2009.
- Muhammad Asif. Title of the thesis: "On the boundedness and measure of non-compactness for maximal and potential operators.", Abdus Salam School of Mathematical Sciences, Lahore, 2009.

Postdoctoral Students of A. Meskhi:

M. A. Zaighum, Department of Mathematics, Universidad Pontificia Javeriana, Bogotá, Columbia, 2015-2016.

Editorial Activities:

- One of the Editor in Chiefs of the International Journal “Transactions of A. Razmadze Mathematical Institute” (Elsevier);
- Member of the Editorial Board of the of the Positive Impact-Factor International Journal “Journal of Mathematical Inequalities” (JMI) (Croatia).
- Associate Editor of the Impact-Factor Journal “Journal of Inequalities and Applications” (Springer).
- Member of the Editorial Board of “Tbilisi Mathematical Journal” (Georgia).
- Member of the Editorial Board of “Commenationes Mathematicae” (Poland).
- Member of the Advisory Board of the International Journal “Journal of the Prime Research in Mathematics” (Abdus Salam School of Mathematical Sciences, Lahore);
- Member of the Editorial Board of open access international journal “Journal of Advances in Mathematical Analysis and Applications” (JAMAA).
- Member of Editorial Board of the Integrational Journal “Journal Nonlinear Sciences and Applications” (J. Nonlinear Sci. Appl.).
- Member of the Editorial Board of the International Journal “Universitas Scientiarum” (Columbia).

Membership:

- 1) Member of the Georgian Mathematical Union.
- 2) Member of the American Mathematical Society.
- 3) Member of International Scientific Committee, TBILISI INTERNATIONAL CENTRE OF MATHEMATICS AND INFORMATICS.

Participation in Conferences: participant of more than 50 International conferences (In many cases as a Plenary/Invited Speaker).

Publications: Author/co-author of 5 monographs and about 160 scientific papers; 95 papers are published in impact-factor journals. (see the list separately).

Citation (Situation for October 14, 2020). Google Scholar: Citation: 2025; h-index 23; **Scopus:** Citation: 655; h-index: 15; **Web of Science:** Citation: 520; h-index 13.

Participation in Conferences Alexander Meskhi

1. **A. Meskhi**, Boundedness criteria for maximal and singular integral operators in weighted variable exponent Lebesgue spaces, XXXIV International Enlarged Sessions of the Seminar of Ilia Vekua Institute of Applied Mathematics (VIAM) of Ivane Javakhisvili Tbilisi State University (TSU), September 17-19, 2020.
2. **A. Meskhi**, "Measure of non-compactness for multisublinear maximal functions and multilinear singular integrals", X Annual International Meeting of the Georgian Mechanical Union, September 26-28, 2019, Telavi, Georgia.
3. **A. Meskhi**, "Maximal and Calderon-Zygmund operators in extrapolation Banach function lattices and applications", 12-th ISAAC Congress, July 29- August 2, 2019, Aveiro, Portugal.
4. **A. Meskhi**, "Singular integrals in weighted grand variable exponent Lebesgue spaces", 12-th ISAAC Congress, July 29- August 2, 2019, Aveiro, Portugal.
5. **A. Meskhi**, "On the Rellich Inequality in Variable Exponent Lebesgue Spaces", International Congress of Mathematicians (ICM2018), August 1-9, 2018, Rio de Janeiro, Brazil.
6. **A. Meskhi**, "Weighted extrapolation in grand Lebesgue spaces and some applications", New Perspectives in Function Spaces and Applications" (NPFSA 2017), September 17-23, 2017, Bedlewo, Poland.
7. **A. Meskhi, (Invited Speaker)** "Integral Operators of Harmonic Analysis in Grand Variable Exponent Lebesgue Spaces", Banach Spaces and Operator Theory with Applications, July 3-7, Adam Mickiewicz University, Poznan, Poland.
8. **A. Meskhi**, "Sublinear operators in weighted grand Morrey spaces", The 11th AIMS Conference on Dynamical Systems, Differential Equations and Applications, July 1-5, 2016, Orlando, Florida, USA.
9. **A. Meskhi**, "Multilinear Integral Operators in Weighted Function Spaces, II Advanced Courses of TICMI in Applied Mathematics, 28-29 SEPTEMBER, 2015, TBILISI, Georgia I.Vekua Institute of Applied Mathematics of I. Javakhisvili Tbilisi State University, Georgia.
10. **A. Meskhi, (Plenary Speaker)** "Multilinear Integral Operators in Some Non-standard Weighted Function Spaces", Swedish-Georgian Conference in Analysis and Dynamical Systems, July 15-22, 2015, Tbilisi, Georgia.

11. **A. Meskhi, (Invited Speaker)** "Fractional integral operators between Banach function lattices", International Workshop on Operator Theory and Applications (IWOTA 2015), July 6-10, Tbilisi, Georgia
12. **A. Meskhi**, "One-sided operators in grand variable exponent Lebesgue spaces", Joint International Meeting of the American, European and Portuguese Mathematical Societies (AMS, EMS and SPM, respectively), June 10-13, 2015, Porto, Portugal.
13. **A. Meskhi**, "Multilinear Integral Operators in Weighted Function Spaces", II Advanced Courses in Applied Mathematics, Tbilisi I. Vekua Institute of Applied Mathematics of I. Javakhsishvili Tbilisi State University, 28-29 September, 2015, Georgia.
14. **A. Meskhi, (Plenary talk)** "Multisublinear maximal operators in Banach Function Lattices", V Annual International Conference of the Georgian Mathematical Union", September 8-12, 2014, Batumi, Georgia.
15. **A. Meskhi**, "Two-weight criteria for Riesz potentials on cones of radially decreasing functions", Caucasian Mathematics Conference (CMC I), Tbilisi, September 5-6, 2014, Georgia.
16. **A. Meskhi**, "Weighted criteria for multilinear fractional integrals" International Congress of Mathematicians (ICM 2014)", August 13-21, Seoul, Korea.
17. **A. Meskhi** (Plenary talk) "Interior estimates and regularity of solutions for elliptic equations in Non-divergence with VMO Coefficients", IV International Conference of the Georgian Mathematical Union Dedicated to Academician Victor Kupradze (1903 – 1985) on the occasion of 110-th anniversary of his birthday and to the Georgian Mathematical union on the occasion of 90 year from founding, Tbilisi-Batumi, September 9-15, 2013.
18. **A. Meskhi**, "Boundedness and compactness criteria for positive kernel operators in variable exponent Lebesgue spaces", International ISAAC 9-th Congress, 5-9 August, 2013, Krakow, Poland
19. **A. Meskhi**, "Integral operators in new function spaces: one and two weight problems", International Conference "Function Spaces X", July 9-14, 2012, Poznan, Poland.
20. **A. Meskhi**, "One-weighted and trace inequalities criteria for fractional integrals in grand Lebesgue spaces" 8th International Conference on 'Function Spaces, Differential Operators, and Nonlinear Analysis' (FSDONA 2011), September 18-24, 2011, Tabarz/Thuringia, Germany.
21. **A. Meskhi, (Plenary talk)** "Integral operators in new function spaces" International Conference "CONTINUUM MECHANICS AND RELATED PROBLEMS OF ANALYSIS" dedicated to the N. Muskhelishvili 120th birthday anniversary, September 10–14, Tbilisi, Georgia Tbilisi, September 9-14, 2011.

22. **A. Meskhi (Invited Speaker)** "Potential and singular operators in grand Lebesgue and Morrey spaces", 5-th World Conference on 21st Century Mathematics, Abdus Salam School of Mathematical Sciences, GC University, Lahore, Pakistan, 9-13 February, 2011.
23. **A. Meskhi**, "On the Hardy Inequality", Young Researchers' First International Camp, July 25-31, 2010, Bakuriani, Georgia.
24. **A. Meskhi**, "Weighted estimates for operators of harmonic analysis in non-standard Lebesgue spaces and some applications", XXX CONVEGNO NAZIONALE DI ANALISI ARMONICA, GARGNANO, 7-11 GIUGNO 2010, ITALIA.
25. **A. Meskhi (Invited Speaker)**, "One-sided potentials with multiple kernels on cones of monotonic functions. One and two weight criteria", International Conference on Mathematical Inequalities and Applications (MIA), School of Mathematical Sciences, (GC University), March 7-13, 2010, Lahore, Pakistan.
26. **A. Meskhi**, "Maximal functions and potentials in Morrey spaces associated with grand Lebesgue spaces", Batumi-Kutaisi, Georgia, 9-12 October, 2009.
27. **A. Meskhi, (Invited Speaker)**, "Potentials and singular integrals in Morrey spaces, 4-th World Conference on 21st Century Mathematics, Abdus Salam School of Mathematical Sciences, Lahore, Pakistan, March 4-8, 2009.
28. **A. Meskhi**, "Trace inequalities for fractional maximal and potential operators in $L^{p(x)}$ spaces", International Workshop in Variable Exponent Analysis and Related Topics, Tbilisi, Georgia, September 2-5, 2008.
29. **A. Meskhi**, "Boundedness of one-sided operators in variable exponent Lebesgue spaces", Workshop and Conference In Function Spaces, Differential Operators and Nonlinear Analysis, Helsinki, Finland, August 22-29, 2008.
30. **A. Meskhi**, a) "One-sided operators in Lebesgue spaces with variable exponent"; B) "Two-weight estimates for generalized potentials, maximal functions and singular integrals in Variable exponent Lebesgue spaces". International Conference "Weight Estimates of Differential and Integral Operators and Their Applications", Astana, Kazakhstan, September 3-5, 2007.
31. **A. Meskhi**, "On the boundedness of one-sided maximal functions and singular integrals in Lebesgue spaces with variable exponent", 6-th International ISAAC Congress, Ankara, Turkey, 13-18 August, 2007.
32. **A. Meskhi**, "Two-weight estimates for maximal functions, potentials and singular integrals in variable exponent Lebesgue spaces", International Workshop in Variable Exponent Analysis, Baku, Azerbaijan, May 14-18, 2007.
33. **A. Meskhi**, "Two-weight estimates for potentials and singular integrals in variable Lebesgue spaces", 3rd International Conference on 21st Century Mathematics, 2007, School of Mathematical Sciences and National Centre for Mathematics, GC University, Lahore, Pakistan, March 4-7, 2007.
34. **A. Meskhi**, "Two-weight estimates for strong fractional maximal functions and potentials with multiple kernels and application in weighted Strichartz estimates for non-homogenous wave equations". IV Congress of Georgian Mathematicians, Tbilisi, Georgia, November 14-16, 2005.
35. **A. Meskhi**, "Two-weight estimates for potential operators with multiple kernels and some applications in the solvability of nonlinear wave equations". International Workshop and School Function Spaces, Integral Operators and

- Applications (Coordinators: V. Kokilashvili and A. Meskhi) Tbilisi, Georgia, August 31- September 4, 2005.
36. **A. Meskhi** , "Stime a due pesi per funzioni massimali forti e potenziali con nuclei multipli". XXV Convegno Nazionale di Analisi Armonica (Italia), Università di Bologna, Dipartimento di Matematica, 6-9 , aprile 2005, Organizzatore: Nicola Arcozzi.
 37. **A. Meskhi** , "Fractional integrals on nonhomogeneous spaces ", European Mathematical Society Conference "Analysis on Metric Measure Spaces ", Supported by: Sixth Framework Programme of the European Commission, UNESCO - ROSTE, Venice, Banach Center, Bedlewo , Poland, July 15 - 23, 2004.
 38. **A. Meskhi** , "Fractional integrals on nonhomogeneous spaces ", 7th International Conference on Harmonic Analysis and Partial Differential Equations, El Escorial, Madrid (Spain) June 21-25, 2004.
 39. **A. Meskhi** , "Criteri di limitatezza per operatori potenziali con nuclei prodotto" XXIV Convegno Nazionale di Analisi Armonica (Italia) , Sestri Levante, 29 Marzo - 1 Aprile, 2004.
 40. **A. Meskhi** , "On the boundedness and compactness for one-sided potentials on the Lebesgue spaces with variable exponent", Summer School in HARMONIC ANALYSIS in the framework of HARP (Harmonic Analysis and Related Problems), Pisa, Italy, September 1-13, 2003.
 41. **A. Meskhi**, "On a trace inequality for the Riemann-Liouville operator in Lebesgue spaces with variable exponent.", International Workshop Modern Aspects in Function Spaces, Differential Operators and Nonlinear Analysis, Tbilisi, Georgia. Coordinators: V. Kokilashvili, A. Meskhi and S. Samko, September 8-13, 2003.
 42. **A. Meskhi** , "On a measure of non-compactness for the Hardy-Littlewood maximal Functions and Calderon-Zygmund singular integrals", ISAAC Conference on Complex Analysis, Differential Equations and Related Topics, Yerevan, Armenia, September 17-21, 2002.
 43. **A. Meskhi**, "On a measure of non-compactness for maximal functions", Congress of Georgian Mathematicians, Tbilisi, Georgia, 11-13 October, 2001.
 44. **A. Meskhi** , "On a trace inequality for one-sided potentials and applications to the solvability of nonlinear integral equations". Symposium in Differential Equations and Mathematical Physics Dedicated to Academician N. Muskhelishvili, A. Razmadze Mathematical Institute, Tbilisi, Georgia, July 23-25, 2001.
 45. **A. Meskhi**, "Boundedness and compactness criteria for integral operators with positive kernels", Scientific Conference Dedicated to Academician I. Vekua, Sukhumi Branch of I. Djavakhishvili State University, Tbilisi, Georgia, April 21, 2001.
 46. **A. Meskhi**, "Weighted problems for higher dimensional singular integrals via Clifford analysis", NATO Advanced Workshop " Clifford Analysis and its Applications", Prague, Czech Republic, October 30- November 3, 2000.
 47. **A. Meskhi** , "Boundedness and compactness weighted criteria for the operators with positive kernels". European Congress for Mathematics, Barcelona, July 10-14, 2000.

48. **A. Meskhi**, " Boundedness and compactness weighted criteria for kernel integral operators", International Symposium in Advanced Course on Function Spaces and Applications, Tbilisi, Georgia, September 6-10, 1999.
49. **A. Meskhi**, "Two-weight boundedness and compactness criteria for one-sided maximal functions and potentials", The first International Junior Conference in Mathematical Analysis, A. Razmadze Mathematical Institute, Tbilisi, Georgia, April 30- May 1, 1998.
50. **A. Meskhi**, " Weighted Inequalities for the Riemann- Liouville and Weyl operators defined on SHT", International Congress of Mathematicians (ICM2018), Berlin, Germany, August 18-27, 1998.
51. **A. Meskhi** , "Boundedness and compactness criteria for the Riemann- Liouville and Weyl transforms", International Conference and Workshop "Nonlinear Analysis, Function Spaces and Applications 6", Prague, Czech Republic, May 31- June 6, 1998.
52. **A. Meskhi** , "Two-weight estimates for singular integrals", Congress of Georgian Mathematicians, Tbilisi, Georgia, September, 1997.

List of Publications

Alexander Meskhi

Monographs:

1. V. Kokilashvili, **A. Meskhi**, H. Rafeiro and S. Samko, Integral operators in non-standard function spaces: Variable exponent Lebesgue and amalgam spaces, Volume 1, *Birkäuser/Springer, Heidelberg*, 2016, pp. 1-567.
2. V. Kokilashvili, **A. Meskhi**, H. Rafeiro and S. Samko, Integral operators in non-standard function spaces: Variable exponent Hölder, Morrey-Campanato and grand spaces, Volume 2, *Birkäuser/Springer, Heidelberg*, 2016, pp. 568-1003.
3. V. Kokilashvili, **A. Meskhi** and L. E. Persson, Weighted Norm Inequalities for Integral Transforms with Product Kernels, *Nova Science Publishers, New York*, 2010.
4. **A. Meskhi**, Measure of Non-compactness for Integral Operators in Weighted Lebesgue Spaces. *Nova Science Publishers, New York*, 2009.
5. D. E. Edmunds, V. Kokilashvili and **A. Meskhi**, Bounded and Compact Integral Operators, *Kluwer Academic Publishers, Dordrecht, Boston, London*, 2002.

Papers (By the symbol * are indicated impact-factor journals)

1. * V. Kokilashvili and **A. Meskhi**, Fractional integrals with measure in grand Lebesgue and Morrey spaces, *Int. Transf. Spec. Funct.* DOI:10.1080/10652469.2020.1833003.
2. * V. Kokilashvili, M. Mastylo and **A. Meskhi**, Calderon--Zygmund singular operators in extrapolation spaces, *Journal of Functional Analysis*, acceptor, DOI: <https://doi.org/10.1016/j.jfa.2020.108735> .
3. * V. Kokilashvili and **A. Meskhi**, On the boundedness of integral operators in weighted grand Morrey spaces (Russian), *Proc. Steklov. Math. Inst.* Accepted.
4. * V. Kokilashvili and **A. Meskhi**, On integral operators in weighted grand Lebesgue spaces of Banach-valued functions, *Mathematical Methods in the Applied Sciences*, DOI: 10.22541/au.158679979.93141945_
5. * V. Kokilashvili and **A. Meskhi**, Boundedness of integral operators in generalized weighted grand Lebesgue spaces with non-doubling measures, *Mediterranean J. Math.* (accepted).
6. * V. Kokilashvili, M. Mastylo and **A. Meskhi**, Singular integral operators in some variable exponent Lebesgue spaces, *Georgian Math. J.* DOI: <https://doi.org/10.1515/gmj-2020-206>
7. * V. Kokilashvili and **A. Meskhi**, Weighted Sobolev inequality in grand mixed norm Lebesgue spaces, *Positivity, Published online*, DOI: 10.1007/s11117-020-00764-8.
8. * V. Kokilashvili and **A. Meskhi**, Extrapolation in weighted classical and grand Lorentz spaces. Application to the boundedness of integral operators, *Banach Journal of Mathematical Analysis*, DOI: 10.1007/s43037-020-00054-1.
9. * V. Kokilashvili, M. Mastylo and **A. Meskhi**, On the Boundedness of Multilinear

- Fractional Integral Operators, *The Journal of Geometric Analysis*, **30**(2020), 667-679, <https://doi.org/10.1007/s12220-019-00159-6>.
10. *G. Imerlishvili and **A.Meskhi**, A Note on the trace inequality for Riesz potentials, *Georgian Math.J.* DOI: 10.1515/gmj-2020-2077
 11. **A.Meskhi**, Essential norm estimates for multilinear singular and fractional integrals, *Commentationes Mathematicae* **59**(2019), No. 1-2, 81–93. DOI: 10.14708/cm.v59i1-2.652 (DI)
 12. G. Imerlishvili, **A. Meskhi** and Q. Xue, Multilinear Fefferman-Stein type inequality and its generalizations, *Transactions of A. Razmadze Mathematical Institute*, **174** (2020), no. 1, 83-92.
 13. * V. Kokilashvili, M. Mastylo and **A.Meskhi**, Compactness criteria for fractional integral operators, *Fractional Calculus and Applied Analysis*, **22** (2019), No 5, 1259-1283.
 14. * V. Kokilashvili, M. Mastylo and **A.Meskhi**, The measure of noncompactness of multilinear operators, *Nonlinear Analysis*, **188** (2019), 70–79, <https://doi.org/10.1016/j.na.2019.05.011>.
 15. * D. E. Edmunds and **A.Meskhi**, Two-weighted Hardy operator in $L^{p(x)}$ spaces and applications, *Studia Math.* **249** (2019), 143-162, DOI: 10.4064/sm180204-20-8.
 16. * V.Kokilashvili, **A. Meskhi** and H. Rafeiro, Commutators of sublinear operators in grand Morrey space". *Studia Sci. Math. Hungarica*, **56** (2)(2019), 211-232. DOI: 10.1556/012.2019.56.2.1425.
 17. * V. Kokilashvili, **A.Meskhi** and M. A. Raguza Weighted Extrapolation in Grand Morrey Spaces and Applications to Partial Differential Equations, *Rendiconti Lincei Matematica e Applicazioni Rend. Lincei Mat. Appl.* **30** (2019), 67–92 DOI 10.4171/RLM/836.
 18. * D. E. Edmunds, V. Kokilashvili and **A.Meskhi**, Sobolev-type Inequalities for Potentials in Grand Variable Exponent Lebesgue Spaces, *Mathematische Nachrichten*, **292**(2019), No.10. 2174-2188. DOI: 10.1002/mana.201800239.
 19. ***A.Meskhi**, H. Rafeiro and M. A. Zaighum, Central Calderon-Zygmund operators on Herz type Hardy spaces of variable smoothness and integrability, *Annals of Functional Analysis*, **9**(2018), No.3, 310-321. <http://dx.doi.org/10.1215/20088752-2017-0030>.
 20. ***A.Meskhi** and Y. Sawano, Density, duality and preduality in grand variable exponent Lebesgue and Morrey spaces, *Mediterranean J. Math.* (2018) 15: 100. DOI: <https://doi.org/10.1007/s00009-018-1145-5>.
 21. * D. E. Edmunds and **A.Meskhi**, On the Rellich inequality in $L^{p(x)}$ spaces, *Georgian Mathematical Journal*, **25**(2018), No. 2, 207–216, DOI: <https://doi.org/10.1515/gmj-2018-0024>.
 22. * V. Kokilashvili and **A. Meskhi**, One-sided operators in grand variable exponent Lebesgue spaces, *Zeitschrift fur Analysis und ihre Anwendungen*, **37**(2018), No.3, 251-375. DOI: 10.4171/ZAA/1614.
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