

CURRICULUM VITAE

Sergey Tikhonov

ICREA Research Professor at CRM

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Education:

2003: PhD, Lomonosov Moscow State University
1999: MS, Lomonosov Moscow State University
Diploma (summa cum laude)
1997: BS, Lomonosov Moscow State University

Teaching Education:

1995-1999: Lomonosov Moscow State University
Department of Pedagogical Education
Diploma, 1999

Qualification: Teacher in Mathematics

Academic Career:

09/12-pres: ICREA Research Professor, CRM, Barcelona, Spain,
10/08-09/12: ICREA Researcher, CRM, Barcelona, Spain,
10/06-09/08: Post-doctoral Fellow, Scuola Normale Superiore, Pisa, Italy,
09/04-09/06: Marie Curie Fellow, CRM, Barcelona, Spain,
09/00-04/04: Lecturer, Lomonosov Moscow State University, Russia

Research Interests:

Analysis, Harmonic analysis, Approximation Theory

Visiting Positions:

1/26-2/26: Invited Researcher, Isaac Newton Institute for Mathematical Sciences, Cambridge, UK
11/25-12/25: Invited Researcher, Centro di Ricerca Matematica Ennio De Giorgi, Pisa, Italy
10/24-11/24: Invited Researcher, Hausdorff Institute for Mathematics, Bonn, Germany
11/23-12/23: RiP Program, MFO, Germany
10/23-10/23: Invited Researcher, IHES, Bures-sur-Yvette, France
09/22-12/22: Simons Visiting Professor, Centre de recherches mathématiques, Montreal, Canada
03/22-04/22: Visiting Professor, Mathematical Institute, Jena, Germany
02/22-02/22: Invited Researcher, Hausdorff Institute for Mathematics, Bonn, Germany
09/20-09/20: Invited Researcher, IHES, Bures-sur-Yvette, France
12/19-12/19: Invited Researcher, Shanghai Jiao Tong University, China
01/19-06/19: Invited Researcher, Isaac Newton Institute for Mathematical Sciences, Cambridge, UK
12/18-12/18: Invited Researcher, Institute of Mathematics of Acad. of Sciences, Prague, Czech Republic
03/18-04/18: Invited Researcher, Institute of Mathematics of Acad. of Sciences, Prague, Czech Republic
12/17-12/17: Research in teams, BIRS, Canada
11/17-12/17: Invited Researcher, University of Alberta, Canada

10/17-10/17: Invited Researcher, Laboratoire J.-L. Lions, Université Pierre et Marie Curie, Paris, France
 09/17-09/17: Invited Researcher, IHES, Bures-sur-Yvette, France
 12/16-12/16: Invited Researcher, Institute of Mathematics of Acad. of Sciences, Prague, Czech Republic
 12/15-12/15: RiP Program, Mathematisches Forschungsinstitut Oberwolfach, Germany
 09/15-09/15: Invited Researcher, Institute of Mathematics of Acad. of Sciences, Prague, Czech Republic
 06/14-08/14: Invited Researcher, Hausdorff Institute for Mathematics, Bonn, Germany
 03/14-03/14: Visiting Professor, Gumilyov Eurasian National University, Kazakhstan
 02/14-02/14: Invited Researcher, Institute of Mathematics of Acad. of Sciences, Prague, Czech Republic
 11/12-12/12: Invited Researcher in the framework of Oberwolfach Leibniz Program, Mathematisches Forschungsinstitut Oberwolfach, Germany
 10/12-10/12: Invited Researcher, Erwin Schrödinger Institute for Mathematical Physics, Austria
 04/12-04/12: Visiting Professor, Gumilyov Eurasian National University, Kazakhstan
 04/11-04/11: Visiting Scholar, Bar-Ilan University, Israel
 10/10-11/10: Visiting Professor, Kazakh National University Al-Farabi and Gumilyov Eurasian National University, Kazakhstan
 04/10-04/10: Visiting Scholar, Centro de Giorgi, Pisa, Italy
 10/09-10/09: RiP Program, Mathematisches Forschungsinstitut Oberwolfach, Germany
 03/09-04/09: Visiting Scholar, Lomonosov Moscow State University, Russia
 12/07-12/07: Visiting Scholar, Bar-Ilan University, Gelbart Institute, Israel
 01/07-03/07: Visiting Scholar, Isaac Newton Institute, Cambridge, UK
 10/06-11/06: Visiting Research Professor, University of Alberta, Canada
 10/04-11/04: Visiting Research Professor, University of Alberta, Canada
 04/04-07/04: Visiting Scholar, Centro de Giorgi, Pisa, Italy
 02/04-02/04: Visiting Scholar, University of Canterbury, Christchurch, New Zealand
 11/03-11/03: Visiting Research Scholar, Mathematical Institute, Jena, Germany
 10/03-11/03: Visiting Researcher, McGill University, Canada
 08/03-10/03: Visiting Research Professor, University of Alberta, Canada

Editorial Positions:

2023-pres: Member of Editorial board, Rendiconti del Circolo Matematico di Palermo
 2020-pres: Member of Editorial board, Advances in Operator Theory
 2019-pres: Member of Editorial board, Journal of Fourier Analysis and Applications
 2015-pres: Member of Editorial board, Analysis Mathematica
 2014-pres: Member of Editorial board, Journal of Mathematical Analysis and Applications
 2010-pres: Member of Editorial board, Bulletin of Mathematical Analysis and Applications
 2017-2024: Member of Editorial board, Jaen Journal on Approximation
 2017-2023: Member of Editorial board, Demonstratio Mathematica
 2012-2019: Member of Editorial board, Abstract and Applied Analysis
 2013-2017: Member of Editorial board, The Scientific World Journal
 2017: Guest editor of the special issue "Function Spaces and Approximation Theory", Analysis Math., Volume 43, Issue 2, 2017

Professional Activities:

2009-pres: Leader of the CRM group "Harmonic Analysis and Approximation Theory"
 Web page: http://www.crm.cat/HarmonicAnalysis_Lines/defaultHarmonicAnalysis.htm

Conferences and programs organized:

Aug. 21-28, 2025: Co-organizer of the Session "Fourier analysis and approximation theory" at the ISAAC congress, Astana, Kazakhstan
 May 19-22, 2025: Main organizer (together with O. Dominguez) of the conference "Sobolev Inequalities and Related Topics" in the CUNEF, Madrid.

- May, June 2025: Main organizer (together with Dmitriy Bilyk, Emanuel Carneiro, Diogo Oliveira e Silva, and Betsy Stovall) of the Research program “Modern trends in Fourier Analysis” in the Centre de Recerca Matemàtica.
- May 26-30, 2025: Main organizer of the Advanced Course on Modern aspects of Fourier analysis
- June 02-06, 2025: Main organizer of the Conference on Modern trends in Fourier analysis
- July 15-19, 2024: Main organizer (together with Winfried Sickel and Vladimir Temlyakov) of the Workshop “Multivariate approximation, discretization, and sampling recovery”, INI, Cambridge
- July, 2024: Main organizer (together with Vladimir Temlyakov and Alexei Shadrin) of the Research program “Discretization and recovery in high-dimensional spaces” in the Isaac Newton Institute for Mathematical Sciences, Cambridge, UK
- February 3-6, 2024: Main organizer of the conference “Function spaces, analysis and approximation” at the Nazarbayev University Astana, Kazakhstan
- Dec 2-Dec 5, 2022: Co-organizer (together with G. Dafni, O. Dominguez, J. Mashreghi) of the Session “Approximation Theory, Function Spaces and Harmonic Analysis” at the Canadian Mathematical Society Winter Meeting, Toronto, Canada
- Aug 28-Sept 2, 2022: Co-organizer (together with Feng Dai, Ronald DeVore, Vladimir Temlyakov) of the Banff-CMO workshop “Applied Functional Analysis”, Oaxaca, Mexico
- June 13-17, 2022: Co-organizer (together with Dmitriy Bilyk, Galyna Livshyts, Darío Alberto Mena Arias, Ioannis Parissis, Maria del Carmen Reguera Rodriguez) Workshop on Harmonic Analysis and Related Topics at CRM, Barcelona
- May 17-18, 2021: Main organizer (together with Aicke Hinrichs, Boris Kashin, Denka Kutzarova, Vladimir Temlyakov) of the online-workshop “Chebyshev-200”
- April-May, 2021: Main organizer (together with Aicke Hinrichs, Boris Kashin, Denka Kutzarova, Vladimir Temlyakov) of the Research program “Applied Functional Analysis and High-Dimensional Approximation” in the Erwin Schrödinger International Institute for Mathematics and Physics, Vienna, Austria (cancelled due to COVID-19 pandemic)
- Aug.2-Aug.8, 2020: Co-organizer (together with Feng Dai, Ronald DeVore, Vladimir Temlyakov) of the Banff-CMO workshop “Applied Functional Analysis”, Oaxaca, Mexico, (cancelled due to COVID-19 pandemic)
- January-June, 2019: Main organizer (together with Anders Hansen, Vladimir Temlyakov, Alexei Shadrin) of the Research program “Approximation, sampling and compression in data science” in the Isaac Newton Institute for Mathematical Sciences, Cambridge, UK
- June 17-21, 2019: Main organizer (together with Dmitriy Bilyk, Eugenio Hernandez, Alexei Shadrin) of the Workshop “Approximation, sampling, and compression in high dimensional problems”, INI, Cambridge
- June 26-30, 2017: Co-organizer of the Follow up Workshop on Approximation Theory and Function Spaces, Barcelona, Spain
- March-July, 2016: Main organizer (together with Vladimir Temlyakov) of the Research program “Constructive Approximation and Harmonic Analysis” in the Centre de Recerca Matemàtica
- May 2-6, 2016: Main organizer of the Workshop on Function Spaces and High-dimensional Approximation, Barcelona, Spain
- May 30- June 4, 2016: Main organizer of the Advanced course on Constructive Approximation and Harmonic Analysis, Barcelona, Spain
- June 6-10, 2016: Main organizer of the Conference on Harmonic Analysis and Approximation Theory (HAAT 2016), Barcelona, Spain
- Aug. 3-8, 2015: Co-organizer of the Session “Fourier analysis and approximation theory” at the 10th International ISAAC congress (International Society for Analysis, Applications and Computations), Macao, China
- Jun.28-Jul.3, 2015: Co-organizer of the Banff-CMO workshop “Applied Functional Analysis”, Oaxaca, Mexico
- Nov. 4-8, 2013: Main organizer of the “Joint CRM–ISAAC Conference on Fourier Analysis and Approximation Theory”, CRM, Barcelona, Spain
- Aug. 5-9, 2013: Main organizer of the Session “Approximation theory and Harmonic analysis” at the 9th International ISAAC congress (International Society for Analysis, Applications and Computations), Krakow, Poland

- 2011 - 2012: Main organizer of the Research program “Approximation Theory and Fourier Analysis” in the Centre de Recerca Matemàtica), September 2011-February 2012.
- Sep. 26-30, 2011: Main organizer of the International Conference on Function Spaces, Weights, and Variable Exponent Analysis
- Nov. 7-11, 2011: Main organizer of the Advanced Course on Approximation Theory
- Dec. 12-16, 2011: Main organizer of ICREA Conference on Approximation Theory and Fourier Analysis
- Aug. 22-27, 2011: Main organizer of the Session “Approximation theory and Fourier analysis” at the 8th International ISAAC congress (International Society for Analysis, Applications and Computations), Moscow, Russia

PhD students:

- 2025-pres: Batyrbek Allamzharov (PhD),
- 2022-2026: Miquel Saucedo (PhD),
- 2019-2024: Kristina Oganessian (PhD), Date of defense: 06.03.2024, Universitat Autònoma de Barcelona, Title: Three problems in harmonic analysis and approximation theory. Currently PostDoc, Ghent University.
- 2018-2021: Kelbet Sadykova (PhD), (Codirected with N. Tleukhanova), Date of defense: 21.08.2021, Karagandy State University, Title: Convolution operator in smooth function spaces. Currently Assistant Professor, Seifullin Technical University, Astana, Kazakhstan
- 2016-2018: Yerzhan Toleugazy (PhD) (Codirected with K. Bekmaganbetov), Date of defense: 14.12.2018, Al-Farabi Kazakh National University, Title: Embedding theorems of Nikolskii-Besov spaces and some problems of approximation theory in anisotropic spaces. Currently Associate Professor, Moscow State University, Astana Branch, Kazakhstan
- 2015-2018: Nestor Costa (PhD) (Codirected with J. Bruna), Date of defense: 20.06.2018, Universitat Autònoma de Barcelona, Title: Innovation in the design and fabrication of optical rotary sensors. Currently Application Solution Manager at Monocrom S.L.
- 2015-2018: Alberto Debernardi (PhD), Date of defense: 12.03.2018, Universitat Autònoma de Barcelona, Title: Convergence and integrability of Fourier transforms. Currently Associate Professor at Universitat Autònoma de Barcelona, Spain
- 2015-2018: Askhat Mukanov (PhD), Date of defense: 14.03.2018, Universitat Autònoma de Barcelona, Title: Integrability of Fourier transforms, general monotonicity, and related problems. Currently Associate Professor, Moscow State University, Astana Branch, Kazakhstan
- 2013-2018: Ainur Jumabayeva (PhD), Date of defense: 15.03.2018, Universitat Autònoma de Barcelona, Title: Liouville-Weyl derivatives, best approximations, and moduli of smoothness. Currently Associate Professor, Eurasian National University, Kazakhstan
- 2012-2013: Petr Chunaev (PhD), Currently Associate Professor, National Research University ITMO, Saint Petersburg, Russia
- 2010-2012: Daulet Nurakhmetov (PhD), Date of defense: 09.11.2012. Currently Associate Professor, Kazakh Technical University, Kazakhstan (Codirected with B. Kanguzhin)

Post-Doctoral students:

- 2025-pres: Crisitian Gonzalez-Riquelme (Post-Doc, PID project),
- 2023-2024: Nurbek Kakharman (Post-Doc, Bolashak program). Currently Researcher, Institute of Mathematics and Mathematical Modeling, Almaty, Kazakhstan
- 2022-2025: Niyaz Tokmagambetov (Post-Doc Beatriu de Pinós), Currently Researcher, Institute of Mathematics and Mathematical Modeling, Almaty, Kazakhstan
- 2022-2023: Ainur Jumabayeva (Post-Doc, Bolashak program), Currently Associate Professor, Eurasian National University, Kazakhstan
- 2017-2019: Thaís Jordão (FAPESP Post-Doc), Currently Professor, University of São Paulo, Brazil
- 2012-2013: Ramazan Akgün (Tubitak Post-Doc), Currently Professor, Balikesir University, Turkey
- 2010-2012: Andriy Bondarenko (Post-Doc Beatriu de Pinós), Currently Associate Professor, Norwegian University of Science and Technology, Norway

2011-2012: Polina Glazyrina (CRM Post-Doc), Currently Department Chair, Associate Professor, Ural Federal University and Institute of Mathematics and Mechanics, Ural Branch of the Russian Academy of Sciences, Russia

Professional Service:

2022: Coordinator of Seminaire d'analyse harmonique in CRM, Montreal
 Jan., 2020, 2022: Member of scientific committee of the Winter school on theory of functions, Saratov, Russia
 2021: ERC Evaluator
 May-June, 2021: Member of scientific committee of the Focus Program on Data Science, Approximation Theory, and Harmonic Analysis (May 17 - June 11, 2021) in the Fields Institute for Research in Mathematical Sciences, Toronto, Canada
 2011-pres: Coordinator of Approximation Theory Seminar in CRM
 2010-pres: Member of International Society for Analysis, its Applications, and Computation
 2017: Member of the Ph.D. Committee for Martin Krepela. Charles University, Czech Republic. Thesis: Integral and Supremal Operators on Weighted Function Spaces
 2014: Member of the Ph.D. Committee for Diana Chigambayeva. University of Padova, Italy. Thesis: Interpolation properties of Morrey-type spaces and their applications
 2014, 2015: Member of the committee for academic promotion, King Abdulaziz University, Saudi Arabia

Awards, Fellowships, and Distinctions:

July 2024: Visiting Scholar, Pembroke College, Cambridge University, UK
 July 2024: Simons Fellow, The Isaac Newton Institute for Mathematical Sciences, UK
 Nov 2023: Oberwolfach Research Fellow, MFO, Germany
 Sept-Dec 2022: Simons Fellow, CRM, Montreal, Canada
 Nov 2021: Friedrich Wilhelm Bessel Research Award, The Alexander von Humboldt Foundation
 Jan 2021: Oberwolfach Research Fellowship, Germany
 Jan.-June 2019: Visiting Scholar, Pembroke College, Cambridge University, UK
 2019: Simons Fellow, The Isaac Newton Institute for Mathematical Sciences, UK
 2017: "Research in Teams" Program, Banff Station, Canada
 2015: "Research in Pairs" Program, Mathematisches Forschungsinstitut Oberwolfach, Germany
 2013: Humboldt Research Fellowship for Experienced Researchers (by the the Alexander von Humboldt Foundation),
 2011: Selected as Number 1 in the area of Mathematics in the Ramón y Cajal programme of MCyT (the Spanish Ministry of Science and Technology),
 2009: ISAAC Award 2009 (by the International Society for Analysis, its Applications, and Computation), for analysts of age below 40.
 2009: "Research in Pairs" Program, Mathematisches Forschungsinstitut Oberwolfach, Germany
 2008-2012 : ICREA Researcher
 2006-2008: Post-doctoral Fellowship, Scuola Normale Superiore
 2004-2006: Marie Curie Fellowship, Contract MIF1-CT-2004-509465, European Commission
 1999: Graduated from Moscow State University with distinction

Grants:

2024-2027: PID2023-150984NB-I00 "Principios de incertidumbre, discretización y temas relacionados" Ministerio de Ciencia e Innovación Grant, Spain (Principal Investigator)
 01.2022-12.2024: 2021 SGR 00087 "Teoria de Funcions i Equacions en Derivades Parcial" the Generalitat de Catalunya
 2021-2024: PID2020-114948GB-I00 "Teoría de la Aproximación y Análisis Armónico: métodos y aplicaciones" Ministerio de Ciencia e Innovación Grant, Spain (Principal Investigator)
 2018-2020: MTM2017-87409-P "Teoría de Aproximación y Análisis Armónico: métodos y aplicaciones", Ministerio de Ciencia e Innovación Grant, Spain (Principal Investigator)
 2017-2019: Grup de teoria de funcions de la UAB/UB, 2017 SGR 358. Grups de recerca (SGR-DGR), the Generalitat de Catalunya

- 2017: ISAAC grant supporting the organization of the Follow-up conference "Approximation Theory and Function Spaces" (Main Organizer)
- 2016: Clay Mathematics Institute grant, National Science Foundation grant (Constructive Approximation and Harmonic Analysis, Grant No. 1613790), Simons Foundation grant, and ISAAC grant supporting the organization of the research program in CRM (Main Organizer)
- 2015-2018: 2014 DI 038, "Innovació en el disseny i construcció de sensors rotatius òptics"
- 2015-2017: MTM2014-59174-P "Methods of constructive approximation and Fourier analysis", Ministerio de Ciencia e Innovación Grant, Spain (Principal Investigator)
- 2015-2017: "Optimal methods of digital signal compression and recovery", Grant of Ministry of Education and Science of the Republic of Kazakhstan
- 2014-2016: Grup de teoria de funcions de la UAB/UB, 2014-SGR-289. Grups de recerca (SGR-DGR), the Generalitat de Catalunya
- 2012-2013: MTM 2011-27637 "Análisis Armónico, Teoría de Aproximación y Problemas Extremales", Ministerio de Ciencia e Innovación Grant, Spain (Principal Investigator)
- 2011: ICREA Conference Award supporting the organization of the Conference "Approximation theory and Fourier analysis", ICREA (Main Organizer)
- 2011: ESF individual Grant within the framework of "Harmonic and Complex Analysis and its Applications", European Science Foundation
- 2010: Visiting Grant, Centro de Giorgi, Pisa, Italy
- 2009: 2009 SGR 1303, the Generalitat de Catalunya
- 2009: MTM 2008-05561-C02-02, Ministerio de Ciencia e Innovación Grant, Spain
- 2008: Visiting Grant, European Congress, Amsterdam, The Netherlands
- 2008: Visiting Grant, Fields Institute, Canada
- 2008: Russian Science Support Foundation Grant 08-01-00302
- 2008: Leading Scientific Schools Grant NSH-2787.2008.1
- 2007: Gelbart Institute Grant
- 2007: Cambridge Philosophical Society Grant
- 2006: Visiting Grant, University of Alberta, Edmonton, Canada
- 2006: Leading Scientific Schools Grant NSH-4681.2006.1
- 2006: RFFR Grant 06-01-00268
- 2004: Visiting Grant, University of Alberta, Edmonton, Canada
- 2004: Visiting Grant, Centro de Giorgi, Pisa, Italy
- 2004: Visiting Grant, University of Canterbury, Christchurch, New Zealand
- 2003: RFFR Grant 03-01-00080
- 2003: Leading Scientific Schools Grant NSH-1657.2003.1
- 2003: RFFR Individual Grant 03-01-06155 for young scientists
- 2003: Visiting Grant, Mathematical Institute, Jena, Germany
- 2003: Visiting Grant, McGill University, Montreal, Canada
- 2003: Visiting Grant, University of Alberta, Edmonton, Canada
- 2000-2002: RFFR Grant 00-01-00042
- 2000-2002: RFFR Grant 00-15-96143
- 2000: Visiting Grant, Lund University, Sweden

Conference Talks:

- 25/09/25-25/09/25: Skvortsov 90 fest, online;
- 21/07/25-25/07/25: Session "Fourier analysis and approximation theory" at the ISAAC congress;
- 25/01/25-25/01/25: Beijing Harmonic Analysis Forum
- 18/11/24-22/11/24: Workshop: Information theory, Boolean functions, and lattice problems, Hausdorff Institute, Bonn, Germany;
- 22/09/24-28/09/24: Function Spaces, Differential Operators, and Nonlinear Analysis, Oberhof, Germany,
- 01/09/24-06/09/24: International Conference of the Georgian Mathematical Union, Batumi, Georgia,
- 28/08/24-31/08/24: "Tbilisi Analysis and PDE Workshop", Tbilisi, Georgia;
- 3/02/24-6/02/24: "Function spaces, analysis and approximation", Astana, Kazakhstan;
- 29/01/24-1/02/24: "Fourier Analysis and its applications", Renyi Institute, Budapest, Hungary;

13/03/23-17/03/23: International Conference on Multivariate Approximation, Schloss Rauischholzhausen, Germany;

1/10/22-7/10/22: Function Spaces and Applications, Apolda, Germany;

3/07/22-8/07/22: Complex Analysis, Spectral Theory and Approximation meet in Linz, Johannes Kepler University, Austria;

31/01/22-04/02/22: Workshop on Harmonic analysis, Singular Integrals and PDEs, The Hausdorff Research Institute for Mathematics, Germany;

05/09/21-12/09/21: Conference "Approximation Theory and Applications", Moscow;

29/08/21-04/09/21: Conference "Approximation and discretization", Moscow;

23/08/21-28/08/21: Georgian Mathematical Union XI Annual International Conference, online;

04/06/21-04/06/21: Conference on function spaces, Czech Republic; online;

09/03/21-13/03/21: School and conference Discretization and related questions, Moscow, Russia;

20/09/20-20/09/20: Russian-Kazakh mathematical symposium, online;

16/01/20-18/01/20: MATA2020 – Multivariate Approximation: Theory and Applications, Perugia, Italy;

12/08/19-17/08/19: First Analysis Mathematica Conference, Budapest, Hungary;

06/08/18-11/08/18: St.Petersburg Summer Meeting in Mathematical Analysis, St. Petersburg, Russia;

08/07/18-13/07/18: Jaen Conference on Approximation Theory, Jaen, Spain;

17/09/17-23/09/17: New perspectives in the theory of function spaces and their applications, Bedlewo, Poland;

24/08/17-31/08/17: Workshop on Fourier Analysis and Related Fields, Pécs, Hungary;

08/05/17-11/05/17: International Conference in Approximation Theory, Georgia Southern University, USA;

06/05/17-07/05/17: AMS Sectional Meeting, Hunter College, City University of New York, New York, NY;

23/04/17-28/04/17: Modern Methods, Problems and Applications of Operator Theory and Harmonic Analysis, Rostov-on-Don, Russia;

02/05/16-06/05/16: Workshop on Function Spaces and High-dimensional Approximation, Barcelona;

02/07/15-04/07/15: Conference in Analysis in Honor of Yoram Sagher, Florida Atlantic University, USA;

29/06/15-03/07/15: CMO-BIRS 2015, Applied Functional Analysis, Oaxaca, Mexico;

27/04/15-30/04/15: Workshop on Function Spaces, Harmonic Analysis, and Related Topics, Karlstad University, Spain;

11/12/14-13/12/14: Functional Analysis Meeting dedicated to Richard Aron, University of Valencia, Spain;

21/10/14-22/10/14: Workshop on Harmonic Analysis and related topics, University of Ulm, Germany;

14/10/14-18/10/14: Workshop on Real Analysis, The Hausdorff Research Institute for Mathematics, Germany;

23/06/14-27/06/14: Mini-courses in Mathematical Analysis 2014, University of Padova, Italy;

29/10/13-01/11/13: Conference on Nonlinear Approximations and Applications, Steklov Mathematical Institute, Moscow, Russia;

05/08/13-09/08/13: Approximation theory and Harmonic analysis, 9th International ISAAC congress, Krakow, Poland;

30/07/13-30/07/13: Radial Basis Functions Day, Justus-Liebig-Universität Giessen, Germany;

30/05/13-01/06/13: Balkan conference of mathematical sciences, Elbasan, Albania;

19/05/13-24/05/13: Integral Transforms and Spectral Theory in Analysis and Geometry, Complex Analysis and Dynamical Systems, Naharia, Israel;

02/09/12-08/09/12: Analyse Harmonique et Probabilités, Angers, France;

02/07/12-03/07/12: Approximation Days 2012, Leuven, Belgium;

25/06/12-30/06/12: Fourier Analysis and Pseudo-Differential Operators, Helsinki, Finland;

11/06/12-15/06/12: Harmonic Analysis and Partial Differential Equations, El Escorial, Madrid, Spain;

04/01/12-07/01/12: New Trends in Approximation Theory, Ein-Gedi, Israel;

26/09/11-30/09/11: Function Spaces, Weights, and Variable Exponent Analysis, Barcelona, Spain;

22/08/11-27/08/11: ISAAC congress, Peoples' Friendship University, Moscow, Russia;

23/08/10-26/08/10: Conference on Approximation Theory, Steklov Mathematical Institute, Moscow, Russia;

28/06/10-02/07/10: The Józef Marcinkiewicz Centenary Conference, Poznań, Poland;

21/06/10-25/06/10: Summer school/ Workshop "Harmonic Analysis and Related Topics", IST, Lisbon, Portugal;

13/05/10-14/05/10: Conference "Mathematical analysis", Alicante, Spain;

15/04/10-30/04/10: Intensive Research Program "Euclidean Harmonic Analysis, Nilpotent Lie Groups and PDEs", The Centro di Ricerca Matematica Ennio De Giorgi, Pisa, Italy;

27/01/10-02/02/10: Conference "Theory of functions and Applications", Saratov, Russia;

- 24/09/09-30/09/09: Functional Analysis and Approximation Theory, Acquafredda di Maratea, Italy;
 22/08/09-26/08/09: Functional Methods in Approximation Theory and Operator Theory, Volyn, Ukraine;
 13/07/09-17/07/09: ISAAC Congress, London, UK;
 27/06/09-01/07/09: Conference "International Meeting on Approximation of the University of Jaén", Úbeda, Spain;
 29/03/09-02/04/09: Conference "Modern problems of mathematics, mechanics and their applications", Moscow, Russia;
 21/03/09-24/03/09: Conference "Approximation Theory and Signal Analysis", Lindau, Germany;
 21/11/08-22/11/08: Auburn miniconference on Harmonic Analysis and Related Areas, Auburn, AL, USA;
 02/08/08-06/08/08: Conference on Function Theory, Miass, Russia;
 06/07/08-11/07/08: Conference on Approximation Theory, Budapest, Hungary;
 29/01/08-04/02/08: Conference "Theory of functions and Applications", Saratov, Russia;
 07/11/07-12/11/07: Conference "VIII International Meeting on Approximation of the University of Jaén", Úbeda, Spain;
 01/08/07-10/08/07: Function Theory, Stechkin's Conference, Aleksin, Russia;
 04/09/06-08/09/06: Barcelona Analysis Conference, Spain;
 31/08/06-03/09/06: Conference "VII International Meeting on Approximation of the University of Jaén", Úbeda, Spain;
 30/08/06-01/09/06: Conference "New Trends in Constructive Approximation Theory", U. Carlos III de Madrid, Spain;
 22/08/06-30/08/06: ICM 2006, Madrid, Spain;
 19/06/06-23/06/06: Harmonic Analysis and Related Problems (HARP 2006), Zaros, Crete, Greece;
 02/03/06-05/03/06: South Eastern Analysis Meeting (SEAM XXII), University of Florida, Gainesville, FL, USA;
 20/09/05-27/09/05: Conference "Harmonic analysis and approximations, III", Tsahkadzor, Armenia;
 09/09/05-11/09/05: Conference "Mathematical analysis and applications", Albarracin (Teruel), Spain;
 08/06/05-14/06/05: Fejér-Riesz conference, János Bolyai Mathematical Society, Eger, Hungary;
 20/09/04-24/09/04: Conference "The Second international course of mathematical analysis in Andalucia", Granada, Spain;
 27/01/04-01/02/04: Conference "Modern problems of theory of functions and their applications" (The 12-th Winter School in Saratov), Saratov, Russia;
 24/03/03-26/03/03: II International Conference "Function Spaces, Differential operators and Problems of mathematical education" in Honour of Lev D. Kudrjavcev on his 80th Birthday, Moscow, Russia;
 26/01/03-04/02/03: Conference "Modern methods of theory of functions and adjacent problems" (The Winter School in Voronezh), Voronezh, Russia;
 24/06/02-27/06/02: International Workshop on Orthogonal Polynomials: "Orthogonal Polynomials and Approximation Theory", Universidad Carlos III de Madrid, Leganes, Spain;
 08/04/02-13/04/02: Conference "The XXIV Conference of Young Scientists", Moscow State University, Russia;
 28/01/02-04/02/02: Conference "Modern problems of theory of functions and their applications" (The 11-th Winter School in Saratov), Saratov, Russia;
 27/01/01-04/02/01: Conference "Modern methods of theory of functions and adjacent problems" (The Winter School in Voronezh), Voronezh, Russia;
 17/08/00-22/08/00: Conference on Function Spaces, Interpolation Theory and related topics in honour of Jaak Peetre on his 65th birthday, Lund, Sweden;
 09/04/99-14/04/99: Conference "The XXI Conference of Young Scientists", Moscow State University, Russia.

Seminar and Colloquium Talks:

- 1/26: Program seminar, INI, Cambridge, UK
 1/26: London Analysis Seminar, Imperial College, London, UK
 11/25: Analysis Seminar, Centro di Ricerca Matematica Ennio De Giorgi, Pisa, Italy
 10/25: Analysis Seminar, Ghent University, Belgium.
 11/24: Seminar on Function Spaces, Friedrich-Schiller-Universität Jena, Germany.
 11/24: Numerical Analysis Seminar, Technische Universität Chemnitz, Germany.
 10/24: Colloquium Lezione lagrangiana, Università di Torino, Italy.

- 02/24: L.N.Gumilyov Eurasian National University, Astana, Kazakhstan.
- 04/23: Seminar on Function Spaces, Friedrich-Schiller-Universität Jena, Germany.
- 02/23: Colloquium, Universität zu Lübeck, Germany.
- 02/23: L.N.Gumilyov Eurasian National University, Astana, Kazakhstan.
- 11/22: Quebec Analysis seminar, Montreal, Canada.
- 11/22: Colloquium, University of Alberta, Canada.
- 09/22: Séminaire d'Analyse Harmonique (CRM), Montreal, Canada.
- 04/22: Seminar on Function Spaces, Friedrich-Schiller-Universität Jena, Germany.
- 11/21: Séminaire EDP-Analyse de l'Institut Camille Jordan, Université Claude Bernard Lyon 1, France.
- 12/20: Approximation Theory, Harmonic Analysis and related topics, Brazilian Webinar, Online.
- 04/20: Analysis Seminar, UB, UAB, CRM, Barcelona.
- 12/19 (2): Analysis Seminar, Beijing Normal University, China.
- 11/19: Kashin/Konyagin analysis Seminar, Moscow State University, Moscow, Russia.
- 11/19: Besov/Nikolskii Seminar, Steklov Mathematical Institute, Moscow, Russia.
- 12/18: The Prague seminar on function spaces, Charles University, Prague, Czech Republic.
- 04/18: Colloquium, Pontificia Universidad Católica del Perú, Peru.
- 02/18: Colloquium, Universidad Complutense de Madrid, Spain.
- 11/17: PIMS/AMI Seminar, University of Alberta, Edmonton, Canada.
- 11/17: Approximation Theory Seminar, University of Alberta, Edmonton, Canada.
- 05/17: General Seminar, USC, Interdisciplinary Mathematics Institute, SC, USA.
- 04/17: Analysis Seminar, Aristotle University of Thessaloniki, Thessaloniki, Greece.
- 04/17: Approximation Theory Seminar, Steklov Mathematical Institute, Moscow, Russia.
- 04/17: Analysis Seminar, University of Coimbra, Portugal.
- 10/16: Functional Analysis Seminar, Université de Franche-Comté, Besançon, France.
- 10/16: Colloquium, Delft University of Technology, The Netherlands.
- 04/16: Colloquium, Nepal Mathematical Society.
- 03/16: Mathematics of Computation, Hausdorff Center for Mathematics, Germany.
- 03/16: Approximation Theory Seminar, Steklov Mathematical Institute, Moscow, Russia.
- 02/16: Colloquium, Università degli Studi di Perugia, Spain.
- 12/15: Seminar "Function spaces", Mathematical Institute, Jena, Germany.
- 11/15: Colloquium, Delft University of Technology, The Netherlands.
- 10/15: Seminar "Function spaces", Mathematical Institute, Jena, Germany.
- 10/15: Colloquium, Universität Trier, Germany.
- 07/15: Colloquium, Florida International University, USA.
- 05/15: GAMA Seminar, Universidad Carlos III de Madrid.
- 03/15: Barcelona's Joint Analysis Seminar, Barcelona.
- 11/14: Colloquium, Universität zu Lübeck, Germany.
- 10/14: Approximation Theory Seminar, Steklov Mathematical Institute, Moscow, Russia.
- 10/14: Besov/Nikolskii Seminar, Steklov Mathematical Institute, Moscow, Russia.
- 03/14: Institute Seminar, Gumilyov Eurasian National University, Astana, Kazakhstan.
- 12/13: Analysis Seminar, Delft University of Technology, The Netherlands.
- 11/13: Seminar "Function spaces", Mathematical Institute, Jena, Germany.
- 10/13: Colloquium, Universität Trier, Germany.
- 05/13: Istanbul Analysis Seminar, Turkey.
- 03/13: Colloquium, CRM, Barcelona.
- 02/13: Institute Seminar, Gumilyov Eurasian National University, Astana, Kazakhstan.
- 11/12: Colloquium, Universität Stuttgart, Germany.
- 05/12: Barcelona's Joint Analysis Seminar, Barcelona.
- 04/12: Analysis Seminar, Gumilyov Eurasian National University, Astana, Kazakhstan.
- 04/12: Colloquium, Mathematisches Institut, Justus-Liebig-Universität Giessen, Germany.
- 03/11: Besov/Nikolskii Seminar, Steklov Mathematical Institute, Moscow, Russia.
- 03/11: Approximation Theory Seminar, Steklov Mathematical Institute, Moscow, Russia.
- 11/10: Colloquium, Delft University of Technology, The Netherlands.

- 10/10; 11/10: Analysis Seminar, Gumilyov Eurasian National University, Astana, Kazakhstan.
10/10: Institute Seminar, Institute of Mathematics, Almaty, Kazakhstan.
10/10: Seminar, Kazakh National University Al-Farabi, Almaty, Kazakhstan.
04/10: Analysis Seminar, Universidad de La Laguna, Spain.
03/10: Barcelona's Joint Analysis Seminar, Barcelona.
11/09: Functional Analysis Seminar, Université de Lille 1, France.
10/09: Analysis Seminar, University of Hohenheim, Stuttgart, Germany.
04/09: Analysis Seminar, Steklov Mathematical Institute, Moscow, Russia.
04/09: Besov/Nikolskii Seminar, Steklov Mathematical Institute, Moscow, Russia.
01/09: Barcelona's Joint Analysis Seminar, UB, UAB, CRM, Barcelona, Spain.
12/08: Analysis seminar, Georgia Institute of Technology, GA, USA.
11/08: Seminar Sophus Lie, Technische Universität Darmstadt, Germany.
12/07 (2): Analysis seminar, Bar-Ilan University, Israel.
12/07: Colloquium, Holon Institute of Technology, Israel.
12/07: Approximation Theory Seminar, Tel Aviv University, Israel.
05/07: Analysis seminar, University of Milano - Bicocca, Italy.
05/07: "János Bolyai" international seminar, University of Basilicata, Italy.
02/07: Colloquium, Cardiff University, UK.
02/07: Seminar, Isaac Newton Institute, Cambridge, UK.
02/07: Analysis Seminar, Imperial College, London, UK.
01/07: Harmonic Analysis Seminar, Scuola Normale Superiore, Pisa, Italy.
12/06: Besov/Nikolskii Seminar, Steklov Mathematical Institute, Moscow, Russia.
11/06: Functional Analysis Seminar, University of Alberta, Edmonton, Canada.
10/06: Séminaire d'Analyse Harmonique, Université de Paris-Sud, Paris, France.
05/06: Barcelona's Joint Analysis Seminar, UB, UAB, CRM, Barcelona, Spain.
03/06: Analysis seminar, Princeton University, NJ, USA.
03/06: Analysis seminar, University of Wisconsin-Madison, WI, USA.
03/06: Analysis seminar, DePaul University, IL, USA.
09/05: Seminar "Trigonometric and Orthogonal series", Moscow State University, Moscow, Russia.
05/05: Seminario de Analisis, Universidad Autónoma de Madrid, Madrid, Spain.
04/05: Besov/Nikolskii Seminar, Steklov Mathematical Institute, Moscow, Russia.
04/05: Telyakovskii Seminar, Steklov Mathematical Institute, Moscow, Russia.
01/05: Barcelona's Joint Analysis Seminar, Barcelona.
11/04: Approximation Theory Seminar, University of Alberta, Edmonton, Alberta, Canada.
05/04: Workshop of the Department of Theory of Function, Kiev Mathematical Institute, Ukraine.
03/04: Telyakovskii Seminar, Steklov Mathematical Institute, Moscow, Russia.
02/04: Research Seminar, University of Canterbury, Christchurch, New Zealand.
12/03: Seminar "Trigonometric and Orthogonal series", Moscow State University, Moscow, Russia.
11/03: Seminar "Function spaces", Mathematical Institute, Jena, Germany.
10/03: Analysis Seminar, Université Laval, Quebec City, Quebec, Canada.
10/03: Analysis Seminar, McGill University, Montreal, Quebec, Canada.
09/03: Approximation Theory Seminar, University of Alberta, Edmonton, Alberta, Canada.
02/03: Besov/Nikolskii Seminar, Steklov Mathematical Institute, Moscow, Russia.
09/02; 10/02: Seminar "Trigonometric and Orthogonal series", Moscow State University, Moscow, Russia.
10/02: Approximation Theory Seminar, Moscow State University, Moscow, Russia.
04/02: Analysis Seminar, Moscow State University, Moscow, Russia.
11/01: Approximation Theory Seminar, Moscow State University, Moscow, Russia.
02/00: Seminar "Trigonometric and Orthogonal series", Moscow State University, Moscow, Russia.
04/99: Analysis Seminar, Moscow State University, Moscow, Russia.

Accreditations:

- 2011: Accreditation in Research, Catalan University Quality Assurance Agency (AQU Catalunya), Barcelona, Spain

Books Edited:

- (1) M. Abell, E. Iacob, A. Stokolos, S. Taylor, S. Tikhonov, J. Zhu (Eds.) Topics in Classical and Modern Analysis. Applied and Numerical Harmonic Analysis. Birkhäuser (2019). 373pp.
- (2) D. Dũng, V. Temlyakov, T. Ullrich, S. Tikhonov (Ed.) Hyperbolic Cross Approximation. Advanced Courses in Mathematics, CRM Barcelona. Basel: Birkhäuser/Springer (2018). 218pp.
- (3) M. Ruzhansky, S. Tikhonov (Eds.) Methods of Fourier Analysis and Approximation Theory, Applied and Numerical Harmonic Analysis, Birkhäuser (2016). 226pp.
- (4) F. Dai, Y. Xu, S. Tikhonov (Ed.) Analysis on h-harmonics and Dunkl transforms. Advanced Courses in Mathematics, CRM Barcelona. Basel: Birkhäuser/Springer (2015).
- (5) V. Temlyakov, S. Tikhonov (Ed.) Sparse approximation with bases. Advanced Courses in Mathematics, CRM Barcelona. Basel: Birkhäuser/Springer (2015).
- (6) D. Cruz-Urbe, A. Fiorenza, M.V. Ruzhansky, J. Wirth, S. Tikhonov (Ed.) Variable Lebesgue Spaces and Hyperbolic Systems, Advanced Courses in Mathematics, CRM Barcelona. Basel: Birkhäuser/Springer (2014).

Publication List:

Books:

- (1) A. Debernardi, E. Liflyand, S. Tikhonov, M. Zeltser. “Single and Multiple Number Series”, Encyclopedia of Mathematics and its Applications 189. Cambridge University Press, 420 p. (2026).
- (2) O. Domínguez, S. Tikhonov. “Sobolev embeddings, extrapolations, and related inequalities”, Memoirs of the European Mathematical Society, to appear. Arxiv: 1909.12818
- (3) O. Domínguez, S. Tikhonov. “Function spaces of logarithmic smoothness: embeddings and characterizations”, Memoirs Amer. Math. Soc., Vol. 282, no. 1393, 2023. 162 pages. Arxiv: 1811.06399
- (4) Yu. Kolomoitsev, S. Tikhonov. “Hardy-Littlewood and Ulyanov inequalities”, Memoirs Amer. Math. Soc. Vol. 271, no. 1325, 2021. Arxiv: 1711.08163
- (5) M. K. Potapov, B. V. Simonov, S. Tikhonov. Fractional Moduli of Smoothness, Maks Press, Moscow (2016). 338pp.

Recent preprints:

- (6) M. Saucedo, S. Tikhonov, Subcritical Fourier uncertainty principles, ArXiv:2404.07375.
- (7) M. Saucedo, S. Tikhonov, The Fourier transform is an extremizer of a class of bounded operators, ArXiv:2501.17505.

Accepted:

- (8) M. Saucedo, S. Tikhonov, “Kahane-Katznelson-de Leeuw theorem and absolute convergence of Fourier series”, to appear in Journal d’Analyse Mathématique Arxiv: 2503.14133
- (9) M. Saucedo, S. Tikhonov, “Poisson summation formula in weighted Lebesgue spaces”, to appear in Annali della Scuola Normale Superiore di Pisa, Classe di Scienze Arxiv: 2412.07661

2026:

- (10) Yu. Kolomoitsev, S. Tikhonov. “Marcinkiewicz-Zygmund inequalities in quasi-Banach function spaces”, Journal of Complexity 93 (2026) 101999. Arxiv: 2411.04119v1

2025:

- (11) O. Dominguez, Y. Li, S. Tikhonov, D. Yang, W. Yuan. “New approach to affine Moser-Trudinger inequalities via Besov polar projection bodies”, Mathematische Annalen, 392 (2025), 3319-3366. ArXiv:1909.12818.

- (12) M. Dyachenko, V. Stepanov, S. Tikhonov. “Fourier inequalities for averaged integral transforms”, *J. Math. Anal. Appl.* 543 (2) (2025), Article 128940.
- (13) M. Ganzburg, M. Saucedo, S. Tikhonov, “Bernstein-Nikolskii Inequality: Optimality with Respect to the Smoothness Parameter”, *J. Fourier Anal. Appl.* 31, 33 (2025). Arxiv: 2403.13149
- (14) E. Kosov, S. Tikhonov. “Sampling discretization in Orlicz space”, *J. Func. Anal.* 289 (7) (2025), 110971.
- (15) M. Saucedo, S. Tikhonov, “Note on Fourier inequalities”, *Nonlinear Analysis*, 261 (2025), 113896. Arxiv: 2407.05503

2024:

- (16) A. Debernardi, E. Nursultanov, S. Tikhonov. “Fourier inequalities in Morrey and Campanato spaces”, *J. Funct. Anal.* 287 (7) (2024), Article 110522.
- (17) O. Domínguez, S. Tikhonov, “Truncated smooth function spaces”, *Trans. AMS*, 377 (2024), 8877–8934. Arxiv: 2211.01529
- (18) O. Domínguez, Y. Li, S. Tikhonov, D. Yang, W. Yuan, “A unified approach to self-improving property via K-functionals”, *Calc. Var. PDE*, 63, 231 (2024). Arxiv: 2309.02597
- (19) A. Gogatishvili, B. Opic, S. Tikhonov, W. Trebels. “A unified approach to inequalities for K-functionals and moduli of smoothness”, *Mathematische Zeitschrift*, 307 (2024), 24. Arxiv: 2307.05124
- (20) V. Ivanov, D. Gorbachev, S. Tikhonov, Logan’s problem for Jacobi transforms, *Canadian Journal of Mathematics*, 76, 3, (2024), 915–945. Arxiv: 2112.05802

2023:

- (21) F. Dai, A. Prymak, A. Shadrin, V. Temlyakov, S. Tikhonov, On the cardinality of lower sets and universal discretization, *J. Complexity*, 76 (2023), 101726. Arxiv: 2208.02113
- (22) M. Dyachenko, E. Nursultanov, S. Tikhonov, F. Weisz. “Hardy–Littlewood-type theorems for Fourier transforms in $\mathbb{R}^d$ ”, *Journal of Functional Analysis*, 284 (2023), 109776. Arxiv: 2205.02504
- (23) Yu. Kolomoitsev, T. Lomako, S. Tikhonov. “Sparse grid approximation in weighted Wiener spaces”, *J. Fourier Anal. Appl.*, 29 (2023), 19. Arxiv: 2111.06335
- (24) D. Gorbachev, V. Ivanov, S. Tikhonov. “On the kernel of the (κ, α) -Generalized Fourier transform”, *Forum of Mathematics, Sigma*, Vol. 11 (2023), e72. ArXiv:2210.15730

2022:

- (25) O. Domínguez, S. Tikhonov, “New estimates for the maximal functions and applications”, *Trans. Am. Math. Soc.* 375, No. 6 (2022), 3969–4018. ArXiv:2102.04748
- (26) M. Dyachenko, S. Tikhonov. “Piecewise general monotone functions and the Hardy–Littlewood theorem, *Trudy MIAN*, (2022) vol. 319, 120–133; translation in *Proc. Steklov Inst. Math.* (2022) vol. 319, 110–123.

2021:

- (27) A. Belov, M. Dyachenko, S. Tikhonov. “Functions with general monotone Fourier coefficients, *Russian Math. Surveys*, 76:6 (2021); translated from *Uspekhi Mat. Nauk*, Vol. 76, Issue 6(462) (2021), 3–70.
- (28) F. Dai, D. Gorbachev, S. Tikhonov. “Estimates of the asymptotic Nikolskii constants for spherical polynomials”, *J. Complexity* 65 (2021), 101553. ArXiv:1907.03832
- (29) F. Dai, A. Prymak, A. Shadrin, V. Temlyakov, S. Tikhonov. “Entropy numbers and Marcinkiewicz-type discretization theorem”, *J. Functional Analysis*, Vol. 281, Is. 6 (2021), art. 109090. ArXiv:2001.10636
- (30) F. Dai, A. Prymak, A. Shadrin, V. Temlyakov, S. Tikhonov. “Sampling discretization of integral norms”, *Constr. Approx.* Vol. 54 (2021), 455–47. ArXiv:2001.09320
- (31) D. Gorbachev, V. Ivanov, S. Tikhonov. “Riesz potential and maximal function for Dunkl transform”, *Potential Analysis*, Vol. 55 (2021), 513–538. ArXiv:1708.09733

- (32) S. Tikhonov. “Weighted Fourier inequalities and boundedness of variations”, *Trudy MIAN*, Vol. 312 (2021), 294–312; translation in *Proc. Steklov Inst. Math.* Vol. 312 (2021), 282–300.

2020:

- (33) F. Dai, D. Gorbachev, S. Tikhonov. “Nikolskii constants for polynomials on the unit sphere, *J. d’Analyse Math.* Vol. 140 (2020), 161–185.
- (34) F. Dai, D. Gorbachev, S. Tikhonov. “Nikolskii inequality for lacunary spherical polynomials, *Proc. AMS.* Vol. 148 (3) (2020), 1169–1174. Arxiv: 1905.00323
- (35) O. Domínguez, D. Haroske, S. Tikhonov. “Embeddings and characterizations of Lipschitz spaces”, *J. Math. Pures Appl.* Vol. 144 (2020), 69–105. Arxiv: 1911.08369
- (36) L. De Carli, D. Gorbachev, S. Tikhonov. “Weighted gradient inequalities and unique continuation problems, *Calculus of Variations and PDE’s*, 59, (2020), 89. ArXiv:1804.03712
- (37) M. Dyachenko, A. Mukanov, S. Tikhonov. “Hardy-Littlewood theorems for trigonometric series with general monotone coefficients”, *Studia Math.* Vol. 250 (3) (2020), 217–234.
- (38) D. Gorbachev, V. Ivanov, S. Tikhonov. “Uncertainty principles for eventually constant sign bandlimited functions”, *SIAM J. Math. Anal.*, 52(5), 4751–4782. ArXiv: 1904.11328
- (39) D. Gorbachev, V. Ivanov, S. Tikhonov. “Sharp approximation theorems and Fourier inequalities in the Dunkl setting”, *J. Approx. Theory* 258 (2020), 105462. ArXiv: 1912.03743
- (40) Yu. Kolomoitsev, S. Tikhonov. “Smoothness of functions vs. smoothness of approximation processes”, *Bull. Math. Sci.* Vol. 10, No. 3 (2020), Article 2030002. Arxiv: 1903.00229
- (41) Yu. Kolomoitsev, S. Tikhonov. “Properties of moduli of smoothness in $L_p(\mathbb{R}^d)$ ”, *J. Approx. Theory*, Vol. 257 (2020), Article 105423. Arxiv: 1907.12788
- (42) E. Nursultanov, S. Tikhonov. “Wiener–Beurling spaces and their properties”, *Bull. Sci. Math.*, Vol. 159 (2020), 102825.
- (43) E. Nursultanov, S. Tikhonov. “Weighted Fourier inequalities in Lebesgue and Lorentz spaces”, *Journal of Fourier Analysis and Applications*, 26 (2020), 57.
- (44) S. Tikhonov, P. Yuditskii. “Sharp Remez inequality”, *Constr. Approx.* 52 (2020), no. 2, 233–246.

2019:

- (45) F. Dai, A. Prymak, V. N. Temlyakov, S. Tikhonov. “Integral norm discretization and related problems, *Russ. Math. Surv.*, Vol. 74:4 (2019), 579–630. Translation from *Uspekhi Mat. Nauk*, Vol. 74, Is. 4(448) (2019), 3–58.
- (46) M. Dyachenko, A. Mukanov, S. Tikhonov. “Uniform convergence of trigonometric series with general monotone coefficients”, *Canad. Jour. Math.* 71, 6, (2019), 1445–1463.
- (47) M. Dyachenko, A. Mukanov, S. Tikhonov. “Smoothness of functions and Fourier coefficients”, *Sbornik: Mathematics* (2019), 210 (7), 994–1018. Translation from *Mat. Sb.*, Vol. 210, Is 7 (2019), 94–119.
- (48) D. Gorbachev, V. Ivanov, S. Tikhonov. “Positive L^p -bounded Dunkl-type generalized translation operator and its applications”, *Constr. Approx.*, Vol. 49, Is 3 (2019), 555–605.
- (49) D. Gorbachev, S. Tikhonov. “Doubling condition at the origin for non-negative positive definite functions”, *Proc. AMS*, Vol. 147, Is 2 (2019), 609–618.

2018:

- (50) D. Gorbachev, S. Tikhonov. “Wiener’s problem for positive definite functions”, *Math. Zeit.*, Vol. 289, Is 3-4 (2018), 859–874.
- (51) D. Gorbachev, E. Liflyand, S. Tikhonov. “Weighted norm inequalities for integral transforms”, *Indiana Univ. Math. J.*, Vol. 67, No. 5 (2018), 1949–2003.

- (52) M. Dyachenko, E. Nursultanov, S. Tikhonov. “Hardy–Littlewood and Pitt’s inequalities for Hausdorff operators”, *Bull. Sci. Math.*, 147 (2018), 40–57.
 - (53) M. Dyachenko, E. Nursultanov, S. Tikhonov. “Hardy–type theorems on Fourier transforms revised”, *J. Math. Anal. Appl.*, 467 (2018), 171–184.
 - (54) M. Dyachenko, S. Tikhonov. “Smoothness and asymptotic properties of functions with general monotone Fourier coefficients”, *J. Fourier Anal. Appl.*, 24(4) (2018), 1072–1097.
 - (55) E. Nursultanov, S. Tikhonov, N. Tleukhanova. “Norm convolution inequalities in Lebesgue spaces”, *Revista Matem. Iberoam.* Vol. 34, Is 2 (2018), 811–838.
- 2017:
- (56) A. Bondarenko, S. Tikhonov. “Bernstein inequalities with nondoubling weights”, *J. Eur. Math. Soc.*, Vol. 19, Is 1 (2017), 67–106. [arXiv:1308.5818](#)
 - (57) L. De Carli, D. Gorbachev, S. Tikhonov. “Pitt inequalities and restriction theorems for the Fourier transform”, *Rev. Mat. Iberoam.* 33, no. 3 (2017), 789–808. [arXiv:1509.01210](#)
 - (58) M. Ganzburg, S. Tikhonov. “On sharp constants in Bernstein–Nikolskii inequalities”, *Constr. Approx.*, Vol. 45, Is 3 (2017), 449–466.
 - (59) V. Temlyakov, S. Tikhonov. “Remez-type and Nikol’skii-type inequalities: general relations and the hyperbolic cross polynomials”, *Constr. Approx.*, Vol. 46, Is 3 (2017), 593–615.
- 2016:
- (60) F. Dai, H. Feng, S. Tikhonov. “Reverse Hölder’s inequality for spherical harmonics”, *Proc. Amer. Math. Soc.*, Vol. 144 (2016), 3, 1041–1051. [arXiv:1408.1877](#)
 - (61) F. Dai, S. Tikhonov. “Weighted fractional Bernstein’s inequalities and their applications”, *J. d’Analyse Math.*, Vol. 129 (2016), 1, 33–68. [arXiv:1307.0207](#)
 - (62) D. Gorbachev, V. Ivanov, S. Tikhonov. “Pitt’s inequalities and uncertainty principle for generalized Fourier transform”, *International Mathematics Research Notices*, Vol. 23 (2016), 7179–7200. [ArXiv:1507.06445](#)
 - (63) D. Gorbachev, V. Ivanov, S. Tikhonov. “Sharp Pitt inequality and logarithmic uncertainty principle for Dunkl transform in L^2 ”, *J. Approx. Theory*, Vol. 202 (2016), 109–118. [arXiv:1505.02958](#)
 - (64) E. Nursultanov, M. Ruzhansky, S. Tikhonov. “Nikolskii inequality and Besov, Triebel–Lizorkin, Wiener and Beurling spaces on compact homogeneous manifolds”, *Annali della Scuola Normale Superiore di Pisa, Classe di Scienze*(5) Vol. XVI (2016), 981–1017. ([arXiv:1403.3430](#))
 - (65) M. Ruzhansky, S. Tikhonov. “Methods of Fourier analysis and approximation theory”, in *Applied and Numerical Harmonic Analysis*, Birkhäuser (2016), 1–18.
- 2015:
- (66) P. Glazyrina, S. Tikhonov. “Jacobi weights, fractional integration, and sharp Ulyanov inequalities”, *J. Approx. Theory*, Vol. 195, (2015), 122–140.
 - (67) E. Nursultanov, M. Ruzhansky, S. Tikhonov. “Nikolskii inequality and functional classes on compact Lie groups”, *Functional Analysis and Its Applications*, Vol.49, N 3 (2015), 226–229. ([arXiv:1507.07111](#))
 - (68) E. Nursultanov, S. Tikhonov. “Weighted norm inequalities for Riesz potential in the Lorentz spaces”, *Potent. Analysis.*, 42, 2 (2015), 435–456. ([arXiv:1307.0206](#))
- 2014:
- (69) A. Gogatishvili, B. Opic, S. Tikhonov, W. Trebels. “Ulyanov-type inequalities between Lorentz–Zygmund spaces”, *J. Fourier Anal. Appl.* 20, 5 (2014), 1020–1049.
 - (70) A. Kolesnikov, S. Tikhonov. “Regularity of the Monge–Ampère equation in Besov’s spaces”, *Calculus of Variations and PDE’s*, 49, (2014), 1187–1197.
 - (71) S. Tikhonov, M. Zeltser, “Weak monotonicity concept and its applications”, *Fourier Analysis, Trends in Mathematics* 2014, 357–374.
- 2013:

- (72) L. De Carli, D. Gorbachev, S. Tikhonov. “Pitt and Boas inequalities for Fourier and Hankel transforms”, *J. Math. Anal. Appl.*, 408, 2 (2013), 762–774.
- (73) M. Dyachenko, E. Nursultanov, S. Tikhonov. “Global and local smoothness of the Hilbert transforms”, *Proc. Steklov Inst. Math.*, 280, 1 (2013), 169–180.
- (74) E. Nursultanov, S. Tikhonov. “A sharp Remez inequality for trigonometric polynomials”, *Constructive Approx.*, 38 (1) (2013), 101–132.
- (75) M. K. Potapov, B. V. Simonov, S. Tikhonov. “Mixed moduli of smoothness in L_p , $1 < p < \infty$: A survey”, *Surveys in Approximation Theory*, 8 (2013), 1–57.

2012:

- (76) D. Gorbachev, S. Tikhonov. “Moduli of smoothness and growth properties of Fourier transforms: two-sided estimates”, *Journal of Approx. Theory*, Vol. 164, Is. 9 (2012), 1283–1312.
- (77) E. Liflyand, S. Tikhonov. “Two-sided weighted Fourier inequalities”. *Annali della Scuola Normale Superiore. Classe di Scienze.* (5) Vol. XI (2012), 341–362.
- (78) H. Mhaskar, S. Tikhonov. “Wiener type theorems for Jacobi series with nonnegative coefficients”. *Proc. Amer. Math. Soc.* 140 (2012), 977–986.

2011:

- (79) D. Gorbachev, E. Liflyand, S. Tikhonov. “Weighted Fourier Inequalities: Boas conjecture in $\mathbb{R}^n$ ”, *J. d’Analyse Math.*, Vol. 114 (2011), 99–120.
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