Georgian National Academy of Sciences

Personal Data (CV)

Surname	Tephnadze	**First Name**	George
Address (work)	The University of Georgia, Merab Kostava St, Tbilisi 0171	**Date and place of birth**	28.03.1990
Citizenship	Georgian	**Contact phone number**	598405165
E-mail	giorgitephnadze@gmail.com		

1. Education

Institution	Learning Time
PHD, Ivane Javakhishvili Tbilisi State University and Luleå University of Technology, Mathematics, PHD student in a special agreement between the universities signed by the Rectors, Georgian PhD Diploma (With Honours № 01/103079), Swedish PhD Diploma (With Honours № 1990-03-28-J293).	2013-2016
Master student Ivane Javakhishvili Tbilisi State University, Faculty of Exact and Natural Sciences, Mathematics, Master`s Diploma (With Honours MH № 000007).	2011-2013
Bachelor student Ivane Javakhishvili Tbilisi State University, Mathematics, Bachelor`s Diploma (With Honours BH № 000184).	2007-2011

2. Scientific or Academic Degree and Rank

	Title of the thesis	Date of conferment
Ph.D. thesis	Martingale Hardy spaces and summability of the one dimensional Vilenkin-Fourier series	Luleå, Sweden 8 October, 2015
Ph.D. thesis	On the Partial Sums and Marcinkiewicz and Fej´er Means on the One- and Two-dimensional One-parameter Martingale Hardy Spaces	Tbilisi, Georgia, 2016

Research Follow of the Academy	Mathematics	2024-2029

3. Knowledge of Languages

Foreign languages	Level of language proficiency (fluent, intermediate, beginning with the help of a dictionary)
English	fluently

4. Work Experience (Including permanent positions abroad)

Date	Institution	Position
2021.15.01-	The Uninverity of Georgia	Head of master program-"Pure and Applied Mathematics"
2017.01.03-	The Uninverity of Georgia	Scientific fellow

4.1 Teaching Activity

Date	Institution	Position
27.09.2016-26.02.2017	Ivane Javakhishvili Tbilisi State University, Department of Mathematics	Invited lecturer

4.2 Work Abroad (Long-term visits to international universities or research centers)

Date	Place and Institution
01.04.2016-25.09.2016	Invited researcher Luleå University of Technology, Department of Engineering Sciences and Mathematics
11.10. 2015-31.03.2016	Postdoctoral researcher Luleå University of Technology, Department of Engineering Sciences and Mathematics

5. Scientific Interests

Fourier Analisis: Martingale Hardy spaces, Dyadic Analisis on the locally compact Abelian groups, Approximation Theory, almost everywhere convergence of classical summability methods with respect to Vilenkin systems.
Partial Differential Equations: Homogenization Theory, Γ-convergence, Laplace Equation, Laplace-Beltrami Equation, Bi-Laplace-Beltrami equation.
Function Theory: Hardy type inequality

6. Publications (83 papers)

6.1 Citation Index

Scopus - 945, h index-20
Google Scholar - 1763, h index-27
Web of Science - 465, h index- 14

6.2 Monographs

Years	
2022	L. E. Persson, G. Tephnadze and F. Weisz, Martingale Hardy Spaces and Summability of one-dimensional Vilenkin-Fourier Series, Birkhäuser/Springer, 2022.

6.3 Principal Papers (no more than 50)

Years	
2025	G. Tephnadze, Sharp strong convergence result of the two-dimensional Walsh-Fourier series in martingale Hardy spaces, Anal. Math. Phys., 15(3), 78, (2025), 23 pp.
2025	N. Areshidze, L.-E. Persson, G. Tephnadze, Convergence almost everywhere of partial sums and F\'ejer means of Vilenkin-Fourier series, Mediterr. J. Math., vol. 22, paper no. 15, (2025), 17 pp.
2024	D. Baramidze, I. Blahota, G. Tephnadze and R. Toledo, Martingale Hardy spaces and some new weighted maximal operator of Fejér means of Walsh-Fourier series, J. Geom. Anal., 34, paper no. 3, (2024), 17 pp.
2024	N. Areshidze and G. Tephnadze, Approximation by Nörlund means with respect to Walsh system in Lebesgue spaces, Math. Inequal. Appl., 27, no. 1, (2024), 137–147
2023	D. Baramidze and G. Tephnadze, Some new weak-(H_p-L_p) type inequalities for weighted maximal operators of Fejér means of Walsh-Fourier series, Acta Math. Hungar., 171, no. 2, (2023), 267–283.
2023	L.-E. Persson, N. Samko and G. Tephnadze, Sharpness of some Hardy-type inequalities, J. Inequal. Appl., (2023), paper no. 155, 16 pp.
2023	D. Baramidze, L. Baramidze, L-E. Persson and G. Tephnadze, Some new restricted maximal operators of Fejér means of Walsh-Fourier series, Banach J. Math. Anal., 75, 17, no. 4 (2023), 20 pp.
2023	D. Baramidze, L.-E. Persson, H. Singh and G. Tephnadze, Some new weak (H_p-L_p) type inequality for weighted maximal operators of partial sums of Walsh-Fourier series, Mediterr. J. Math., 20 (2023), no. 5, paper no. 28, 13 pp.
2023	D. Baramidze, L.-E. Persson and G. Tephnadze, Some new (H_p-L_p) type inequalities for weighted maximal operators of partial sums of Walsh-Fourier series, Positivity, 27 (2023), no 3, paper no. 38, 14 pp.
2023	D. Baramidze, L.-E. Persson, K. Tangrand and G. Tephnadze, (H_p-L_p) type inequalities for subsequences of Nörlund means of Walsh-Fourier series, J. Inequal. Appl., (2023), paper no. 52, 13 pp.
2023	D. Baramidze, N. Nadirashvili, L.-E. Persson and G. Tephnadze, Some weak-type inequalities and almost everywhere convergence of Vilenkin-Nörlund means, J. Inequal. Appl., (2023), paper no. 66, 17 pp.
2022	N. Nadirashvili, L.-E. Persson, G. Tephnadze, F. Weisz, Vilenkin–Lebesgue points and almost everywhere convergence for some classical summability methods, Mediterr. J. Math., (2022), no. 19, paper no. 239, 16 pp.
2022	L.-E. Persson, F. Schipp, G. Tephnadze and F. Weisz, An analogy of the Carleson-Hunt theorem with respect to Vilenkin systems, J. Fourier Anal. Appl., 28, 48 (2022), 1-29.
2022	D. Baramidze, L.-E. Persson, H. Singh, G. Tephnadze, Some new results and inequalities for subsequences of Nörlund logarithmic means of Walsh-Fourier series, J. Inequal. Appl., (2022), paper no. 30, 13 pp.
2021	N. Gogolashvili, G. Tephnadze, Maximal operators of T means with respect to Walsh-Kaczmarz system, Math. Inequal. Appl., 24, 3 (2021) 737–750.
2021	N. Gogolashvili, G. Tephnadze, On the maximal operators of T means with respect to Walsh-Kaczmarz system, Stud. Sci. Math. Hung., (2021) 58 (1), 119–135.
2021	L. E. Persson, G. Tephnadze, G. Tutberidze, P. Wall, Some new results on the strong convergence of Fejér means with respect to Vilenkin systems, Ukr. Math. J., 73, (2021) 635–648.
2021	N. Gogolashvili, K. Nagy, G. Tephnadze, Strong convergence theorem for Walsh-Kaczmarz-Fej\'er means, Mediterr. J. Math., 18(2021), no. 2, Paper No. 37, 17 pp.
2020	D. Lukkassen, L. E. Persson, G. Tephnadze, G. Tutberidze, Some inequalities related to strong convergence of Riesz logarithmic means of Vilenkin-Fourier series, J. Inequal. Appl., (2020), paper no. 79, 17 pp.
2020	L. E. Persson, G. Tephnadze, G. Tutberidze, On the boundedness of subsequences of Vilenkin-Fejér means on the martingale Hardy spaces, operators and matrices, 14, 1 (2020), 283–294.
2019	I. Blahota, K. Nagy, G. Tephnadze, Approximation by Marcinkiewicz Θ-means of double Walsh-Fourier series, Math. Inequal. Appl., 22, 3 (2019) 837-853.
2018	L. E. Persson, G. Tephnadze, P. Wall, On the Nörlund logarithmic means with respect to Vilenkin system in the martingale Hardy space H_1, Acta Math. Hung., 154, 2 (2018) 289-301.

2018	L. E. Persson, G. Tephnadze, P. Wall, On an approximation of 2-dimensional Walsh-Fourier series in the martingale Hardy spaces, Ann. Funct. Anal., 9, 1 (2018), 137-150.
2018	I. Blahota, L. E. Persson, G. Tephnadze, Two-sided estimates of the Lebesgue constants with respect to Vilenkin systems and applications, Glasg. Math. J., 60, 1 (2018) 17–34.
2017	T. Buchukuri, R. Duduchava, G. Tephnadze, Laplace-Beltrami equation on hypersurfaces and Γ-convergence, Math. Meth. App. Sci., 40, 13 (2017) 4637-4657.
2016	L. Baramidze, L. E. Persson, G. Tephnadze and P. Wall, Sharp H_p-L_p type inequalities of weighted maximal operators of Vilenkin-Nörlund means and its applications, J. Inequal. Appl., (2016), paper no. 242, 20 pp.
2016	T. Buchukuri, R. Duduchava, G. Tephnadze, Dirichlet problem for Laplace-Beltrami equation on hypersurfaces-FEM approximation, Trans. A. Razmadze Math. Inst., 170, 3 (2016) 300–307.
2016	L. E. Persson, G. Tephnadze, A sharp boundedness result concerning some maximal operators of Vilenkin-Fejér means, Mediterr. J. Math., 13, 4 (2016) 1841-1853.
2016	N. Memić, I. Simon, G. Tephnadze, Strong convergence of two-dimensional Vilenkin-Fourier series, Math. Nachr., 289, 4 (2016) 485–500.
2016	K. Nagy, G. Tephnadze, The Walsh-Kaczmarz-Marcinkiewicz means and Hardy spaces, Acta Math. Hung., 149, 2 (2016), 346-374.
2016	K. Nagy, G. Tephnadze, Strong convergence theorem for Walsh-Marcinkiewicz means, Math. Inequal. Appl., 19, 1 (2016), 185–195.
2016	G. Tephnadze, On the convergence of Fejér means of Walsh-Fourier series in the space H_p, J. Contemp. Math. Anal., 51, 2 (2016), 90-102.
2015	I. Blahota, G. Tephnadze, R. Toledo, Strong convergence theorem of (C,α)-means with respect to the Walsh system, Tohoku Math. J., 67, 4 (2015), 573-584.
2015	I. Blahota, L.E. Persson, G. Tephnadze, On the Nörlund means of Vilenkin-Fourier series, Czech. Math J., 65, 4 (2015), 983-1002.
2015	G. Tephnadze, On the partial sums of Walsh-Fourier series, Colloq. Math., 141, 2 (2015), 227-242.
2015	L. E. Persson, G. Tephnadze, P. Wall, Some new (H_p,L_p) type inequalities of maximal operators of Vilenkin-Nörlund means with non-decreasing coefficients, J. Math. Inequal., 9, 4 (2015), 1055-1069.
2015	L. E. Persson, G. Tephnadze, P. Wall, On the maximal operators of Vilenkin-Nörlund means, J. Fourier Anal. Appl., 21, 1 (2015), 76-94.
2015	R. Duduchava, E. Shargorodsky, G. Tephnadze, Extension of the unit normal vector field from a hypersurface, Georgian Math. J., 22, 3 (2015), 355-359.
2014	I. Blahota, G. Tephnadze, On the (C,α)-means with respect to the Walsh system, Anal. Math., 40 (2014), 161-174.
2014	I. Blahota, G. Tephnadze, Strong convergence theorem for Vilenkin-Fejér means, Publ. Math. Debrecen, 85 (1-2) (2014), 181–196.
2014	K. Nagy, G. Tephnadze, On the Walsh-Marcinkiewicz means on the Hardy space, Cent. Eur. J. Math., 12, 8 (2014), 1214-1228.
2014	K. Nagy, G. Tephnadze, Approximation by Walsh-Marcinkiewicz means on the Hardy space $H_{2/3}$, Kyoto J. Math., 54, 3 (2014), 641-652.
2014	G. Tephnadze, Approximation by Walsh-Kaczmarz-Fejér means on the Hardy space, Acta Math. Sci., 34, 5 (2014), 1593-1602.
2014	G. Tephnadze, On the maximal operators of Reisz logarithmic means of Vilenkin-Fourier series, Stud. Sci. Math. Hung., 51, 1 (2014), 105-120.
2014	G. Tephnadze, Strong convergence theorems of Walsh-Fejér means, Acta Math. Hung., 142, 1 (2014), 244–259.
2013	G. Tephnadze, On the maximal operators of Walsh-Kaczmarz-Fejér means, Period. Math. Hung., 67, 1 (2013), 33-45.
2013	G. Tephnadze, Strong convergence of two-dimensional Walsh-Fourier series, Ukr. Math. J., 65, 6 (2013), 914–927.
2013	G. Tephnadze, On The maximal operators of Vilenkin-Fejér means on Hardy spaces, Math. Inequal. Appl., 16, 2 (2013), 301-312.
2013	G. Tephnadze, On the maximal operators of Vilenkin-Fejér means, Turk. J. Math., 37, (2013), 308-318.
2012	G. Tephnadze, Fejér means of Vilenkin-Fourier series, Stud. Sci. Math. Hung., 49, 1 (2012) 79-90.

6.5 Participation in Scientific Symposiums, Conferences for the last 5 years

Years	Title	Name of Event
2025	Almost everywhere convergence of subsequences of partial sums of Fourier series with respect to Vilenkin systems	The Fourth International Conference on Mathematics and Statistics (ICMS25), OTHA Special Session, Sharjah, United Arab Emirates.
2024	Title of Lectures-"Introduction in dyadic analysis"	Seminars of Center of Mathematics and Applications (NOVA Math) at the NOVA School of Science and Technology, Universidade NOVA de Lisboa Universidade NOVA de Lisboa, Lisbon, Portugal.
2024	Title-"Almost everywhere convergence of subsequences of partial sums of Fourier series with respect to Vilenkin systems"	International Conference-"XIV International Conference of Georgian Mathematical Union", Batumi Shota Rustaveli State University.
2024	Title-" Approximation by matrix transform means with respect to the Vilenkin system in Lebesgue spaces"	International Conference-"The Tbilisi Analysis & PDE Workshop", The University of Georgia, Tbilisi, Georgia.
2024	Title-"Almost everywhere convergence of partial sums and certain summability methods of trigonometric and Vilenkin systems"	The 50, 70, 80 Conference in Mathematics, Karlstad University, Karlstad, Sweden.
2024	Title-"Sharpness of some Hardy-type inequalities"	Workshop on real analysis and related fields, Eötvös University, Budapest, Hungary.
2024	Title-"Sharpness of some Hardy-type inequalities" Title-"Martingale Hardy Spaces and Summability of one-dimensional Vilenkin-Fourier Series"	Ghent Methusalem Microlocal Day № 9, Ghent Analysis and PDE Centre, Ghent University, Ghent, Belgium
2023	Title-" Laplace-Beltrami and Bi-Laplace-Beltrami equations on hypersurfaces and Γ-convergence"	Workshop on real analysis and related fields, The Arctic University of Norway, Narvik, Norway
2023	Title-"Sharpness of some Hardy-type inequalities"	International Conference-"XIII International Conference of Georgian Mathematical Union" Batumi Shota Rustaveli State University, Batumi, Georgia
2023	Title-"Almost everywhere convergence of partial sums and certain summability methods of trigonometric and Vilenkin systems"	International Conference-"The Tbilisi Analysis & PDE Workshop", The University of Georgia, Tbilisi, Georgia.
2023	Title-"Bi-Laplace-Beltrami equation on hypersurfaces and Γ-convergence".	International Workshop on Operator Theory and Applications, IWOTA , University of Helsinki, Helsinki, Finland.
2022	Title-"Restricted maximal operators of Fejér means of Walsh-Fourier series in the martingale Hardy spaces"	Workshop on real analysis and related fields, Eötvös University, Budapest, Hungary
2022	Title-"Almost everywhere convergence of partial sums and certain summability methods of trigonometric and Vilenkin systems"	Ghent Methusalem Colloquium, Ghent University, Ghent, Belgium.

2022	Title-“Almost everywhere convergence of partial sums and certain summability methods of trigonometric and Vilenkin systems”	International Workshop on Operator Theory and Applications, IWOTA, University of Agriculture in Krakow, Krakow, Poland.
2022	Title-“Almost everywhere convergence of partial sums and certain summability methods of trigonometric and Vilenkin systems”	International Conference-“XII international conference of Georgian Mathematical Union”, Batumi Shota Rustaveli State University, Batumi, Georgia
2022	Title-“Almost everywhere convergence of partial sums of trigonometric and Vilenkin systems and certain summability methods”	International Bi-weekly Online Seminar -“Tbilisi Analysis & PDE Seminar”, The University of Georgia, Tbilisi, Georgia.
2021	Title-“Laplace–Beltrami Equation on Hypersurfaces and Γ-Convergence”.	Worhshop at Technische Universität Berlin, Technical University of Berlin, Berlin, Germany.
2021	Title-“Laplace–Beltrami Equation on Hypersurfaces and Γ-Convergence”.	Online Conference-“13th ISAAC Congress”, Ghent, Belgium.
2021	Title-“Some new results and inequalities for subsequences of Nörlund logarithmic means of Walsh-Fourier series”	Workshop-“Workshop on real analysis and related fields”, The Arctic University of Norway, Narvik, Norway
2021	Title-“Convergence and Summability of the One- and Two-dimensional Vilenkin-Fourier Series in the Martingale Hardy Spaces”	Online Conference-“XI international conference of Georgian Mathematical Union”, Batumi Shota Rustaveli State University, Batumi, Georgia.

7. International and Local Scientific grants

Years	Name
2025-2028	Principal Investigator, Analysis & Partial Differential Equations on Lie groups. Shota Rustaveli National Science Foundation (FR-24-698).
2023	Mobility and international scientific event grant competition, Shota Rustaveli National Science Foundation (MG-ISE-23-1899).
2022	Niko Ketskhoveli Scholarship in the Field of Natural Sciences, Shota Rustaveli National Science Foundation (YSS-22-129).
2022-2025	Project coordinator, Young researcher, “Moving Manifolds”, Shota Rustaveli National Science Foundation, (FR-21-2844).
2022-2023	Researcher, “Long-time dynamics of elliptic and parabolic systems involving anomalous diffusion and irreversibility“, Humboldt Foundation (№ HF-19-523).
2022-2023	Project coordinator, “The Fascinating World of Mathematics”, Shota Rustaveli National Science Foundation, (№SPG-22-855).
2021-2022	Project coordinator, “The Fascinating World of Mathematics”, Shota Rustaveli National Science Foundation, (№ SPG-21-2194).
2020-2023	Principal Investigator “Function spaces and integral operators on locally compact Abelian groups” Shota Rustaveli National Science Foundation, (FR-19-676).
2018-2020	Principal Investigator, “Convergence and summability of Walsh-Fourier series on the martingale Hardy spaces“, Shota Rustaveli National Science Foundation, (№ YS-18-043).
2017-2018 academic year	Principal Investigator, “Convergence and Summability of the Two-Dimensional Walsh-Fourier Series on martingale Hardy Spaces“, Shota Rustaveli National Science Foundation, (№ 24155/2016).
2016-2018	Young Researcher, “Thin shells with Lipschitz boundary “, Shota Rustaveli National Science Foundation, (№ DI-2016-16).
2016-2017	Principal Investigator, “A new development concerning d-dimensional Walsh-Fourier series on the martingale Hardy spaces“, Swedish Institute (№ 10374_2015).

2015-2017	Principal Investigator, “Convergence and summability of the one and two-dimensional Vilenkin-Fourier series on the martingale Hardy spaces” Shota Rustaveli National Science Foundation, (№ YS15_2.1.1_47).
2015-2016	Principal Investigator, „On the partial sums and Marcinkiewicz-Fejér means on the one and two-dimensional one parameter Hardy spaces“, Shota Rustaveli National Science Foundation, (№ DO/24/5-100/14).
2014-2016	Young Researcher, “Function spaces, weighted inequalities for integral operators and problems of summability of Fourier series”, Shota Rustaveli National Science Foundation, (№ DI/9/5-100/13).
2014-2016	Principal Investigator, “Bounded operators on the martingale Hardy spaces“ Shota Rustaveli National Science Foundation, (№ 00317/2014).
2014	Principal Investigator, “Bounded operators on the martingale Hardy spaces” Shota Rustaveli National Science Foundation, President grants for young researchers, (№ 52/54).
2013-2015	Young Researcher, "Asymptotic model of a thin shell", Shota Rustaveli National Science Foundation, (№ DI/10/5-101/12).
2012-2014	Young Researcher , "Geometry of function spaces, interpolation and embedding theorems” Shota Rustaveli National Science Foundation, (№ D1/7/5-100/11).

8. Other Activities

	Name	Years
Supervision of Theses work	Giorgi Tutberidze, A study of bounded operators on martingale Hardy spaces	2021
Supervision of Theses work	Davit Baramidze, Boundednes of subsequences of partial sums and Nörlund means and their maximal operators on the martingale Hardy spaces	2024

9. Membership in international scientific organizations

Years	Name
2010-	Georgian Mathematical Union

10. Awards and Prizes

Date	Name of Awards, Prizes
2024-2029, Georgia	Scholar of the Academy in mathematics, Evarded by Georgian National Academy of Sciences
2022, Georgia	Niko Ketskhoveli Scholarship in the Field of Natural Sciences, (YSS-22-129)
2017, Georgia	The best young scientist of the year in exact and natural sciences Ewarded by Shota Rustaveli National Science Foundation
2013, Georgia	Prime of Niko Nikoladze for young scientists under the age 40 years, Ewarded by Georgian Mathematical Union