# CURRICULUM VITAE

**Nino Manjavidze**

**Personal data:**

– First name**:** Nino
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**Current Job:**

**Position:** Associate Professor at Ilia State University, Faculty of Natural Sciences andEngineering.
**Address:** 3/5 K. Cholokashvili Ave., Tbilisi, 0162, Georgia.

**Education**: 1970-75, Tbilisi State University, Faculty of Mechanics and Mathematics, Department of Mechanics.

**Academic degree:**

Academic Doctor. Candidate Degree of Phys. Math. Sciences (Ph.D.), 2004. Thesis: "RiemannHilbert type problems on a cut plane". A. Razmadze Institute of Mathematics; (Scientific Supervisor Prof. G. Khimshiashvili).

**Job experience:**

- Since 2018. Associate Professor at Ilia State University, Faculty of Business, Technology and Education.
- 2015-2019. Math. Professor at SDSU-Georgia State University.
- 2014 - 2018. Associate Professor at Ilia State University, Faculty of Natural Sciences and Engineering.
- 2008 - 2014. Invited Lecturer at Ilia State University, Faculty of Natural Sciences and Engineering.
- 1990-2014. Assistant/Associate Professor at Georgian Technical University, Departmentof General Mathematics.
- 1976–2001. Researcher at N. Muskhelishvili Institute of Computational Mathematics of the Academy of Sciences of Georgia.

**Main Research Field:** Theory of analytic and generalized analytic functions, Riemann-Hilbert type problems, Complex analysis**,** Elliptic systems on Riemann surfaces.

**Languages:** Georgian (native), English (fluent), Russian (fluent).

**Membership and other scientific activities:**

- **ISAAC** (International Society of Analysis, Applications and computations) – Lifemember since 2007.
- **Georgian Mathematical Union** – Member.
- **Georgian Union of Mechanicians** – Member.
- **American Mathematical Society** - MathSciNet Reviewer #07944.
- **Zentralblatt Math** - Reviewer #15008
- **Elsevier JDE-**Reviewer-username: nino.manjavidze@iliauni.edu.ge

**Book Editing and Translations:**

1. G. Manjavidze, Boundary Value Problems for Analytic and Generalized Analytic Functions, Recent Developments and Future Expectations, Atlantic Press, 2019. Editor.
2. For All Practical Purposes" (Introduction to contemporary mathematics. Project director S. Garfunkel, Fourth edition, W.H. Freeman and Company, New York, 1997. 884 pp. – Transl. into Georgian: Reader "Practical Mathematics", 2011.
3. G. Manjavidze, W. Tutschke. Boundary value problems, Part III, Some topics on value distri- bution and differentiability in complex and P-adic analysis. Mathematics monograph series 11, Science Press, 2008. Editor and translator.

**Research Grants:**

1. 2010 - 2012. **Shota Rustaveli National Science Foundation,** Grant #ST09-783-3-100: Elliptic systems on Riemann surfaces and applications.
2. 2017-2020. **Shota Rustaveli National Science Foundation,** Grant # FR 17-96: Riemann- Hilbert problems on Riemann surfaces and the invariants of holomorphic fibration.
3. 2022-2025. **Shota Rustaveli National Science Foundation,** Grant # FR 22-354: Factorization problem and holomorphic fibration invariants on Riemann surfaces.

**Publications:**

1. N. Manjavidze, On the Riemann-Hilbert boundary value problem for the plane with curvilinear cuts, Reports of Enlarged Session of the Seminar of I. Vekua Institute of Applied Mathematics, (1988), (in Russian).
2. N. Manjavidze, On the Riemann-Hilbert-Poincare boundary value problem for analytic fun- ctions

on a cut plane, (part 1). Reports of Enlarged Session of the Seminar of I.Vekua Institute of Applied Mathematics.v.5, no.1, (1990), (in Russian).

3. N. Manjavidze, Differential boundary value problem on a cut plane, Tbilisi University Press, Reports of Enlarged Session of I.Vekua Institute of Applied Mathematics, v.7, no.1,1992.
4. N. Manjavidze, On some boundary value problems of the theory of analytic functions on a cut plane. Reports of Enlarged Session of the Seminar of I.Vekua Institute of Applied Mathematics. v.13, no.1, (1998), (in Russian).
5. N.Manjavidze, Differential boundary value problem of the theory of analytic functions on a cut plane. Complex Variables, Theory and Application, v.46, no.3, (2001), 265-276.
6. N.Manjavidze, Some boundary value problems with shift for analytic functions on a cut plane.Progress in Analysis,Edited by H.Begehr, R. Gilbert, Proceedings of 3-rd International ISAAC Congress, v.2, Berlin, 2001, 763-769.
7. N.Manjavidze, The Riemann-Hilbert boundary value problem on a cut plane. Topics in Ana- lysis and its Application, Nato Series, v.187, Kluwer, Dordrecht, 2003, 83-90.
8. N.Manjavidze, On the Riemann-Hilbert-Poincare Problem for Analytic Functions on a cut plane. Bull. Georg. Acad. Sci. v.168, no. 3, 2003, 441-444.
9. N.Manjavidze, Boundary value problems for analytic and generalized analytic functions on a cut plane. Memoirs on Differential Equations and Mathematical Physics, v.33, 2004, 121-154.
10. N.Manjavidze, Riemann-Hilbert problems on a cut plane. Institute of cybernetics, Contem- porary Mathematics, v.15, 2004, 121-141.
11. N.Manjavidze, G.Akhalaia, G.Makatsaria, Elliptic systems on the plane, Tbilisi University Press Proceedings of International ISAAC Conference dedicated to I.Vekua centenary, 23-27 April,AMIM,v.12,1, 2007, 1-12.
12. N.Manjavidze, G.Akhalaia, G.Makatsaria , Some problems of elliptic systems on the plane, World Scientific, Further Progress in Analysis, Edited by H. Begehr, O. Celebi, R.Gilbert, Proceedings of 6-th International ISAAC Congress, August 13-18, 2007, Ankara, 303-310.
13. N.Manjavidze , G.Akhalaia, On one boundary value problem of the theory of generalized analytic functions, Tbilisi University Press. Reports of Enlarged Session of I.Vekua Institute of Applied Mathematics, 23, 4, 2008.
14. N.Manjavidze, G.Akhalaia , Cauchy-Lebesgue classes for Q-holomorphic vectors, Procee- dings of International Conference dedicated to 90th anniversary of Tbilisi State University, 7, X, 2008.
15. N.Manjavidze, G.Akhalaia, Cauchy-Lebesgue type integrals for the generalized Beltrami systems. Tbilisi University Press. Reports of Enlarged Session of I.Vekua Institute of Applied Mathematics, 23, 4, 2009.
16. N.Manjavidze, G.Akhalaia, Some remarks on generalized Beltrami systems. Proceedings of International Conference “Analytic Methods of Mechanics and Complex Analysis” dedicated to N.A.Kilchevskii and V.A.Zmorovich on the occasion of their birthday centenary, Kiev, 29.06 – 05.07, 2009.

17. G.Manjavidze, N.Manjavidze, Boundary value problems of analytic and generalized analytic functions. Journal of Math. Sci. v.160, 6, 2009, 745-821.
18. N. Manjavidze, G. Akhalaia, G.Makatsaria. Some Qualitative Issues for the First Order Elliptic Systems in the Plane. "Progress in Analysis and its Applications". Edited by M.Ruzhunsky and J.Wirth. World Scientific Publishing Company,London, 2010, 67-73.
19. N. Manjavidze., G. Akhalaia. Boundary Value Problems with Shift for Generalized Analytic Vectors. Ann. Univ. Paed. Cracov. Stud. Math. 9 (2010), 123-132. http://studmath.ap.krakow.pl/
20. N. Manjavidze., G. Akhalaia. Some Remarks on Generalized Beltrami Systems. Proceedings of Enlarged Sessions of I. Vekua Institute of Applied Mathematics, April, 2010.
21. N. Manjavidze, G. Akhalaia. Functional classes for generalized Beltrami systems. Recent Developments in Generalized Analytic Functions and Their Applications. Proceedings of the International Conference on Generalized Analytic Functions and Their Applications. 9-13, 2011 //tsu.edu.ge
22. N. Manjavidze, G. Akhalaia, G. Giorgadze, V. Jikia, N. Kaldani, G. Makatsaria. Elliptic Systems on Riemann Surfaces. Tbilisi International Center of Mathematics and Informatics. v. 13, 1-154, 2012.
23. N. Manjavidze., G. Giorgadze. On some constructive methods for the matrix Riemann– Hilbert boundary-value problem. Journal of Mathematical Sciences. V. 195, Issue 2, 2013, 146-174.
24. N. Manjavidze, G. Makatsaria. The Riemann-Hilbert Boundary Value Problem for Carleman- Vekua Equation with Polar Singularities, .Bull.Geo.Nat.Acad.Sci. vol.9, no.3, 12-19, 2015.
25. N. Manjavidze, G. Makatsaria. Liouville type theorems for the first order two-dimensional singular differential systems. Proceedings of I. Vekua Institute of Applied Mathematics, v.66, 2016.
26. N. Manjavidze, G. Akhalaia. Differential boundary value problem for the second order Linearelliptic system of differential equations on the plane. Proceedings of I. Vekua Institute of Applied Mathematics, v.67, 3-9, 2017.
27. N. Manjavidze. Riemann-Hilbert type problems on a cut plane. Journal of Mathematical Sciences. Springer, 235(5), 632-683, 2018.
28. N. Manjavidze, G. Jaiani, G. Giorgadze, G. Akhalaia. The impact of Bojarski's works on the theory of elliptic partial differential equations on plane. Proceedings of I. Vekua Institute of Applied Mathematics, v. 68, 2018.
29. Akhalaia, G., Giorgadze, G., Manjavidze, N. Boundary-Value Problems with Shift and Beltrami Systems. Journal of Mathematical Sciences (United States), 2019, 237(1).
30. N. Manjavidze, G. Makatsaria, T. Vekua, G. Akhalaia. On the Generalized Liouville Theorem. Analysis, Probability, Applications and Computation. Proceedings of 11th International ISAAC Congress, Vaxjo, Sweden, Trends in Mathematics, Research Perspectives, Birkhäuser, Springer, p. 117-127, 2019.
31. N. Manjavidze, G. Giorgadze, G. Akhalaia, G. Makatsaria. Deformation of Complex Structures and Boundary Value Problem with Shift. Trends in Mathematics, Research Perspectives, Analysis as a Life. Dedicated to Heinrich Begehr on the occasion of his 80th Birthday, Birkhäuser, Springer, p. 1-

19, 2019.

32. Manjavidze, N., Akhalaia, G. (2022). BVP for the First Order Elliptic Systems in the Plane. In: Cerejeiras, P., Reissig, M., Sabadini, I., Toft, J. (eds) Current Trends in Analysis, its Applications and Computation. Trends in Mathematics. Birkhäuser, Cham. https://doi.org/10.1007/978-3-030-87502-2_7
33. Manjavidze, N., Makatsaria, G. (2023). Analysis of BVP for Some Elliptic Systems on a Complex Plane. In: Kähler, U., Reissig, M., Sabadini, I., Vindas, J. (eds) Analysis, Applications, and Computations. ISAAC 2021. Trends in Mathematics. Birkhäuser, Cham. https://doi.org/10.1007/978-3-031-36375-7_17
34. G. Akhalaia, N. Manjavidze. On boundary value problems for nonlinear systems of partial differential equations in the plane. Bull. Comp. Appl. Math (Bull CompAMa). (to appear in 2024)

**Scientific Conferences:**

1. International conference "Functional-Analytic and Complex Methods, their Interactions, and Applications to Partial Differential Equations". Differential Boundary-value Problem of the Theory of Analytic Functions on a Cut Plane. Graz,Austria, 2001.
2. 3rd International ISAAC Congress "Progress in Analysis". Some Boundary-value Problems of the Theory of Analytic Functions on a Cut Plane. Berlin, Germany, 2001.
3. ISAAC International Conference on Complex Analysis, Differential Equations and Related Topics. Riemann-Hilbert boundary value problem on a cut plane. Yerevan,Armenia, 2002.
4. Analysis and Partial Differential Equations, Conference in honor of Professor Bogdan Bojarski. Riemann-Hilbert type problems on a cut plane. International conference, Banach Center, Bedlevo, Poland, June18-24, 2006.
5. ISAAC International Conference dedicated to the centenary of I. Vekua, Complex Analysis, Partial Differential Equations and Mechanics of Continua. Elliptic systems on the plane. Tbilisi, Georgia, April 23-27, 2007.
6. 6-th International ISAAC Congress. Some problems of elliptic systems on the plane.Ankara, Turkey, August 13-18, 2007.
7. Enlarged Sessions of Seminar of I. Vekua Institute of Applied Mathematics. On one boundary value problem of the theory of generalized analytic functions. International conference, Tbilisi, Georgia, April, 2008.
8. International Conference dedicated to 90th anniversary of Tbilisi State University. Cauchy-Lebesgue classes for Q-holomorphic vectors. Tbilisi, Georgia, 2008.
9. Enlarged Sessions of Seminar of I. Vekua Institute of Applied Mathematics. Cauchy-Lebesgue type integrals for generalized Beltrami systems International conference, Tbilisi, Georgia, April, 2009.
10. International conference analytic methods of mechanics and complex analysis. Some remarks on generalized Beltrami Systems. Kiev, Ukraine, 29.06 – 05.07, 2009.
11. 7-th International ISAAC Congress. On some qualitative issues of first order ellipticsystems

on the plane. Imperial College, London, UK, 2009.

12. First international summer school and conference “New trends in geometry and topology”. Geometric Aspects of Beltrami Systems. Batumi State University, Batumi,Georgia, 2009.
13. Enlarged Sessions of Seminar of I. Vekua Institute of Applied Mathematics. SomeRemarks on Generalized Beltrami Systems. International conference, Tbilisi, Georgia, April, 2010.
14. International Conference “Boundary Value Problems, Functional Equations and Applications”. Boundary Value Problems with Shift for Generalized Analytic Vectors. Krakow, Poland, April 14-17, 2010.
15. First International Conference of Georgian Mathematical Union. On Generalized Beltrami Systems Batumi, Georgia, September 12-19, 2010.
16. II International Conference Dedicated to the 70th Anniversary of the Georgian National Academy of Sciences and the 120th Birthday of its First President Academician Nikoloz Muskhelishvili. Boundary Value Problems of the theory of Generalized Analytic Vectors. Batumi, Georgia, 2011.
17. International Conference on Generalized Analytic Functions and their Applications. Functional classes for generalized Beltrami systems. Tbilisi, Georgia, 2011.
18. International Conference "Continuum Mechanics and Related Problems of Analysis" to celebrate the 70th Anniversary of the Georgian Academy of Sciences and the 120th Birthday of its First President. On generalized analytic vectors. Tbilisi, Georgia, 2011.
19. 3-rd International Conference of Georgian Mathematical Union. Generalized analytic functions. Batumi, Georgia, 2012.
20. Second International Conference "Modern Problems in Applied Mathematics". Functional classes of the solutions of elliptic systems on the plane. TSU-95, Viam-45, Tbilisi, Georgia, 2013.
21. Enlarged Sessions of Seminar of I. Vekua Institute of Applied Mathematics, International conference. On one boundary value problem for Q-holomorphic vectors. Tbilisi, Georgia, April, 2013.
22. Enlarged Sessions of Seminar of I. Vekua Institute of Applied Mathematics, International conference. Boundary Value Problems for elliptic systems in domainswith angular points. Tbilisi, Georgia, April, 2014.
23. Caucasian Mathematics Conference (CMC 1). Boundary value problems of the theory of generalized analytic vectors. Tbilisi, Georgia, 2014, Book of Abstracts, p. 39.
24. 5th International Conference of Georgian Mathematical Union. Generalized analytic functions. Batumi, Georgia, 2014.
25. 6th International Conference of Georgian Mathematical Union. BVP for analytic functions. Batumi, Georgia, 2015.
26. Enlarged Sessions of Seminar of I. Vekua Institute of Applied Mathematics, International Conference, Tbilisi, Georgia, April, 2015, On the constructive

methods for the matrix Rieman-Hilbert boundary value problem

27. Some boundary value problems for generalized analytic vectors. Enlarged Sessions of Seminar of I. Vekua Institute of Applied Mathematics, International conference, Tbilisi, Georgia, April, 2016.
28. 4th International Conference "Lie groups, Differential equations and Geometry", General Elliptic Systems on the Plane, Italy, Sicily, Modica, 2016.
29. Correctness of the Boundary Value Problems for Some Classes of Two-Dimensional Elliptic Systems. 7th International Conference of Georgian Mathematical Union. Batumi, Georgia, 2016.
30. 11th International ISAAC Congress at Linnaeus University, Vaxjo, Sweden, August 14-18, 2017, On the Generalized Liouville Theorem.
31. Differential boundary value problem for the second order linear elliptic system of differential equations on the plane. Enlarged Sessions of Seminar of I. Vekua Institute of Applied Mathematics, International conference, Tbilisi, Georgia, April, 2017.
32. 8th International Conference of Georgian Mathematical Union. Batumi, Georgia, 2017, Liouville type theorems for first order singular systems.
33. The Riemann-Hilbert problem for elliptic systems on the plane. 11th International Conference of Electrical, Transport, and Optical Properties on Inhomogeneous Media – 11th ETOPIM, Krakow, Poland, July 16-20, 2018.
34. Boundary value problems for generalized analytic vectors. Enlarged Sessions of Seminar of I. Vekua Institute of Applied Mathematics, International conference, Tbilisi, Georgia, April, 2018.
35. BVP for the first order elliptic systems in the plane. Enlarged Sessions of Seminar of I. Vekua Institute of Applied Mathematics, International conference, Tbilisi, Georgia, April, 2019.
36. On the structure of generalized analytic function in the neighborhood of singular point. 12th International ISAAC Congress, Aveiro, Portugal, 29 July – 2 August, 2019.
37. Universality of the Dirichlet series. XI Annual International Meeting of the Georgian Mechanical Union, Batumi, 27 – 29 August, 2020 (with G. Giorgobiani).
38. Correct Boundary Value Problem for Singular Generalized Functions. International Scientific Conference "Complex Analysis and Its Applications" Kazan Federal University, 24-28 August, 2020 (with G. Akhalaia, G. Makatsaria).
39. Boundary Value Problems with displacement for the generalized analytic vectors. 13th International ISAAC Congress, August 2–6, 2021 - Ghent, Belgium (with G. Akhalaia, G. Makatsaria).
40. BVP for the first order elliptic systems in the plane, XI Annual International Meeting of the Georgian Mathematical Union, Batumi, Georgia 23 – 28 August, 2021. (with G. Akhalaia, G. Makatsaria).
41. On a condition for the affinity of the sum range of the series in a normed space. XII

Annual International Conference of the Georgian Mathematical Union, August 29 – September 3, 2022, Batumi, Georgia. (with G. Giorgobiani)

42. About the series rearrangement problem. XIII Annual International Meeting of the Georgian Mechanical Union. August 24 –26, 2022, Batumi, Georgia. (with G. Giorgobiani)
43. XXXVII International Enlarged Sessions of the Seminar of Ilia Vekua Institute of Applied Mathematics, April 19-22, 2023, Tbilisi, Georgia https://www.viam.science.tsu.ge/enlarged/2023/
44. Generalized Meromorphic Functions. 2nd International E-Conference on Mathematical and Statistical Science: A Selcuk Meeting, June 05-07, 2023-Konya, Turkey. https://icomss22.selcuk.edu.tr/
45. On the structure of Regular Analytic Functions. 14th International ISAAC Congress, July 16-21, 2023-Sao Paulo, Brazil. https://dcm.ffclrp.usp.br/isaac/
46. Functional Properties of the Solutions of Some Classes of Two-Dimensional Elliptic Systems. The Fourth International Conference "MODERN PROBLEMS IN APPLIED MATHEMATICS" Dedicated to the 105th Anniversary of I. Javakhishvili Tbilisi State University (TSU) & 55th Anniversary of I. Vekua Institute of Applied Mathematics (VIAM) https://www.viam.science.tsu.ge/mpam2023/contributed/