

Monographs and Surveys

1. N. Berikashvili, Differentials of spectral-sequence. *Trudy Tbiliss. Mat. Inst.* **51**(1976), 1-106.
2. G. Berikelashvili, Construction and analysis of difference schemes for some elliptic problems, and consistent estimates of the rate of convergence. *Mem. Differential Equations Math. Phys.* **38** (2006), 1-131.
3. A. V. Bitsadze, To the problem of mixed type equations. (Russian) *Trudy Mat. Inst. AN SSSR*, v. 41, 1953.
4. A. V. Bitsadze, Mixed type equations. (Russian) *Itogi nauki, Moscow*, 1959.
5. A. V. Bitsadze, Boundary value problems for elliptic equations of second order. (Russian) *Nauka, Moscow*, 1966.
6. A. V. Bitsadze, Some class of partial differential equations. (Russian) *Nauka, Moscow*, 1981.
7. F. Borceux and G. Janelidze, Galois theories. *Cambridge Studies in Advanced Mathematics* **72**, Cambridge University Press, 2001.
8. T. Buchukuri, O. Chkadua, R. Duduchava, and D. Natroshvili, Interface crack problems for metallic-piezoelectric, *Mem. Differential Equations Math. Phys.* **55** (2012), 1-150. Free access: <http://www.rmi.ge/jeomj/memoirs/vol55/contents.htm>
9. T. Buchukuri, O. Chkadua and D. Natroshvili, mathematical problems of generalized thermo-electro-magneto-elasticity theory. *Mem. Differential Equations Math. Phys.* **68** (2016), 1-166.
10. T. V. Burchuladze, T. G. Gegelia, Development of the potential method in the theory of elasticity. (Russian) *Tbilisi, Metsniereba*, 1985.
11. V. G. Chelidze, Double Denjoy's integrals. (Russian) *Trudy Tbiliss. Mat. Inst. Razmadze Akad. Nauk Gruzin. SSR* **15**(1947), 155-242.
12. V. G. Chelidze and A. G. Jvarsheishvili, The theory of a Denjoy's integral and its applications. (Russian) *Tbilisi Univ. Press, Tbilisi*, 1978.
13. R. Chichinadze and T. Gegelia, Boundary value problems of mechanics of continuum media for a sphere. *Mem. Differential Equations Math. Phys.* **7**(1996), 1-222.
14. G. Chogoshvili, On level surfaces and regions of smaller values. *Akad. Nauk Gruzin. SSR* **17**(1949), 208-243.
15. T. Datuashvili, Categorical, homological, and homotopical properties of algebraic objects, *J. Math. Sci. (N.Y.)* **225** (2017), no. 3, 383-533.
16. R. Duduchava, Integral equations of convolution type with discontinuous presymbols, singular integral equations with fixed singularities and their applications to some problems of mechanics. (Russian) *Trudy Tbiliss. Mat. Inst. Akad. Nauk Gruzin. SSR* **60**(1979), 1-135.
17. R. Duduchava, Integral equations with fixed singularities. *Teubner, Leipzig*, 1979.

18. R. Duduchava and B. Silbermann, Boundary value problems in domains with peaks. *Mem. Differential Equations Math. Physics* **21**(2000), 1-121.
19. O. Dzagnidze, Some new results on the continuity and differentiability of functions of several real variables. *Proc. A. Razmadze Math. Inst.* **134** (2004), 1-138.
20. ო. ძაგნიძე. ფურიეს ანალიზი, ოსუ-ს გამომცემლობა, 2015, 274 გვ. (სახელმძღვანელო).
21. A. Dzhishkariani, Approximate solution of one class of singular integral equations by means of projective and projective-iterative methods. *Mem. Differential Equations Math. Phys.* **34** (2005), 1-76.
22. D. E. Edmunds, V. Kokilashvili, and A. Meskhi, Bounded and compact integral operators. *Mathematics and Its Applications, Kluwer Academic Publishers, Dordrecht-Boston-London*, 2002.
23. M. Eliashvili, On the quantum fields and systems with ordered ground states. *Mem. Differential Equations Math. Phys.* **9**(1996), 1- 170.
24. L. Ephremidze, *Real Analysis Methods in Ergodic Theory*, Nova Science Publishers, New-York, USA, 2012.
25. V. Franjou, E. M. Friedlander, T. Pirashvili, and L. Schwartz, Rational representations, the Steenrod algebra and functor homology. *S. M. F. Panoramas et Synthèses*, 16. Paris, 2003.
26. V. R. Garsevanishvili and Z. R. Menteshashvili, Relativistic nuclear physics in the light front formalism. *Nova Science Publishers Inc., New York*, 1993.
27. Sh. Gelashvili and I. Kiguradze, On multi-point boundary value problems for systems of functional differential and difference equations. *Mem. Differential Equations Math. Phys.* **5**(1995), 1-113.
28. I. Genebashvili, A. Gogatishvili, V. Kokilashvili, and M. Krbeč, Weight theory for integral transforms on spaces of homogeneous type. *Pitman Monographs and Surveys in Pure and Appl. Math., Addison Wesley Longman*, 1998.
29. V. Gogokhia and G.G. Barnafoldi, *The Mass Gap and its Applications*, World Scientific, 2012.
30. J. K. Gvazava, On some class of quasilinear mixed type equations. (Russian) *Tbilisi, Metsniereba*, 1991.
31. J. K. Gvazava, Some class of hyperbolic and mixed type equations. (Georgian) *Proc. Razmadze Math. Inst.* **108**(1992), 1-176.
32. N. Inassaridze, Some aspects of homotopic algebra and non-Abelian (co)homology theories. Translated from *Sovrem. Mat. Prilozh.* No. 93 (2014). *J. Math. Sci. (N.Y.)* **213** (2016), no. 1, 1-129.
33. H. Inassaridze, Algebraic K -theory. *Kluwer Academic Publishers, Amsterdam*, 1995.
34. H. Inassaridze, Non-abelian homological algebra and its applications. *Kluwer Academic Publishers, Amsterdam*, 1997.
35. G. Jorjadze, Hamiltonian reduction and quantization on symplectic manifolds. *Mem. Differential Equations Math. Phys.* **13**(1998), 1-98.

36. T. Kadeishvili, $A(\infty)$ -algebra Structure in Cohomology and Rational Homotopy Type, Proc. of Tbil. Mat. Inst., v. 107, (1993), 1-94.
37. A. I. Kalandia, Mathematical methods of two-dimensional elasticity. Moscow, Mir Publishers, Nauka, 1973.
38. D. Kapanadze and B.-W. Schulze, Crack theory and edge singularities. Mathematics and its Applications, 561. Kluwer Academic Publishers Group, Dordrecht, 2003, 485 pp.
39. A. B. Kharazishvili, Strange functions in real analysis (Second edition). Pure and Applied Mathematics (Boca Raton), 272. Chapman & Hall/CRC, Boca Raton, FL, 2006.
40. A. Kharazishvili, Topics in Measure Theory and Real Analysis. Atlantis Press & World Scientific Publ. Co., Amsterdam-Paris, 2009, 470 pp.
41. ა. ხარაზიშვილი, კომბინატორული გეომეტრიის ელემენტები, ნაწილი I, (ინგლისურ ენაზე: A. Kharazishvili, Elements of Combinatorial Geometry, Part 1), საქართველოს მეცნიერებათა ეროვნული აკადემიის გამომცემლობა, თბილისი, 2016, 300 გვ.
42. A. Kharazishvili, *Strange Functions in Real Analysis*. third edition, Chapman and Hall/CRC, New York, 2017.
43. S. Kharibegashvili, Goursat and Darboux type problems for linear hyperbolic partial differential equations and systems. *Mem. Differential Equations Math. Phys.* **4** (1995), 1-127.
44. S. Kharibegashvili, Some multidimensional problems for hyperbolic partial differential equations and systems. *Mem. Differential Equations Math. Phys.* **37** (2006), 1-136.
45. S. Kharibegashvili, Boundary value problems for some classes of nonlinear wave equations. *Mem. Differential Equations Math. Phys.* **46** (2009), 1-114.
46. S. Kharibegashvili, Some local and nonlocal multidimensional problems for a class of semilinear hyperbolic equations and systems. *Mem. Differ. Equ. Math. Phys.* **75** (2018), 1-91.
47. G. Khimshiashvili, Signature formulae for topological invariants. *Proc. A. Razmadze Math. Inst.* **125**(2001). 1-120.
48. G. Khimshiashvili, Geometric aspects of Riemann-Hilbert problems. *Mem. Differential Equations Math. Phys.* **27** (2002), 1-114.
49. G. Khuskivadze, V. Kokilashvili, and V. Paatashvili, Boundary value problems for analytic and harmonic functions in domains with nonsmooth boundaries. Applications to conformal mappings. *Mem. Differential Equations Math. Phys.* **14**(1998), 1-195.
50. B. V. Khvedelidze, Linear discontinuous boundary problems of the functions theory. (Russian) *Trudy Tbiliss. Mat. Inst. Razmadze Akad. Nauk Grazii* **23**(1956), 1-158.
51. B. V. Khvedelidze, The method of Cauchy type integrals in the discontinuous boundary value problems of holomorphic functions of a complex variable. (Russian) *Current problems in mathematics. Newest results, vol. 7 (Russian), Itogi nauki i tekhniki Acad. Nauk SSSR, Vsesoyuz. Inst. Nauchn. i Tech. Inform., Moscow, 1975, 3-158.*
52. B. V. Khvedelidze, The method of Cauchy type integrals in the discontinuous boundary-value problems of the theory of holomorphic functions of a complex-variable. *Sov. J. Math.* **7**(1977), No. 3, 317-343.

53. I. Kiguradze, Some singular boundary value problems for ordinary differential equations. (Russian) *Tbilisi University Press, Tbilisi*, 1975.
54. I. Kiguradze, Boundary value problems for systems of ordinary differential equations. *J. Soviet Math.* **43**(1988), No. 2, 2259-2339.
55. I. Kiguradze, Initial and boundary value problems for systems of ordinary differential equations. I. (Russian) *Metsniereba, Tbilisi*, 1997.
56. I. Kiguradze, Boundary value problems for systems of linear ordinary differential equations. (Czech) *Masaryk University, Brno*, 1997.
57. I. Kiguradze and T. Chanturia, Asymptotic properties of solutions of nonautonomous ordinary differential equations. (Russian) *Nauka, Moscow*, 1990.
58. I. Kiguradze and T. Chanturia, Asymptotic properties of solutions of nonautonomous ordinary differential equations. *Kluwer Academic Publishers, Dordrecht-Boston-London*, 1992.
59. I. Kiguradze and B. Půza, Boundary value problems for systems of linear functional differential equations. *Masaryk University, Brno*, 2003, 108 pp.
60. I. Kiguradze and B. Shekhter, Singular boundary value problems for second order ordinary differential equations. *J. Soviet Math.* **43**(1988), No. 2, 2340-2417.
61. V. Kokilashvili, Maximal functions and singular integrals in weighted function spaces. (Russian) *Metsniereba, Tbilisi*, 1985.
62. V. Kokilashvili and M. Krbec, Weighted inequalities in Lorentz and Orlicz spaces. *World Scientific*, 1991.
63. V. Kokilashvili, A. Meskhi, and L. E. Persson, Weighted Norm Inequalities for Integral Transforms with Product Kernels, *Nova Science Publishers, New York*, 2009, 475 pp.
64. 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, 576 pages.
65. 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, 428 pages.
66. V. Kokilashvili and V. Paatashvili, *Boundary Value Problems for Analytic and Harmonic functions in Nonstandard Banach Function Spaces*, Nova Science Publishers, New-York, USA, 2012, 275 pp.
67. R. Koplatadze, On oscillatory properties of solutions of functional differential equations. *Mem. Differential Equations Math. Phys.* **3**(1994), 1-179.
68. V. D. Kupradze, Basic problems of the mathematical theory of diffraction (Stationary processes). (Russian) *L.-M., Central Publishing Company of technical Literature*, 1935.
69. V. D. Kupradze, Boundary value problems of the oscillation theory and integral equations. (Russian) *M.-L., State Publishing House of technical and theoretical Literature*, 1950.
70. V. Kupradze, Fundamental problems in the mathematical theory of diffraction. *Los Angeles*, 1952.

71. V. Kupradze, Randwertaufgaben der Schwingungstheorie und integralgleichungen. (German) *Veb Deutscher verlag der Wissenschaften, Berlin*, 1956.
72. V. D. Kupradze, Methods of a potential in the theory of elasticity. (Russian) *Fizmatgiz, Moscow*, 1963.
73. V. Kupradze, Dynamical problems in elasticity. *North-Holland Publ. Comp., Amsterdam*, 1963 (N. Sneddon and R. Hill Editors. Progress in Solid Mechanics, v. 111).
74. V. Kupradze, Potential methods in the theory of elasticity. *Israel Program of Scientific translations Jerusalem* 9(1965).
75. V. Kupradze, Metody teorii potenciatu w teorii sprzystosci. *Zaklad Narodowy imienia ossolinskish wydawnictwo. Polskiej Akademii nauk, Wroclaw-Warszawa-Krakow*, 1966.
76. V. Kupradze, Wybrane zagadnienia teorii sprzystosci i termosprzystosci. *Zaklad Narodowy imienia ossolinskish wydawnictwo. Polskiej Akademii nauk, Wroclaw-Warszawa-Krakow*, 1970.
77. V. D. Kupradze and T. V. Burchuladze, The dynamical problems of the theory of elasticity and thermoelasticity. (Russian) *Current problems in mathematics. Newest results, vol. 7 (Russian), Itogi nauki i tekhniki Acad. Nauk SSSR, Vsesoyuz. Inst. Nauchn. i Tech. Inform., Moskow*, 1975, 1-132.
78. V. D. Kupradze, T. G. Gegelia, M. O. Basheleishvili, and T. V. Burchuladze, Three-dimensional problems of the mathematical theory of elasticity and thermoelasticity. (Russian) *Gos. Yniversitet, Tbilisi*, 1968.
79. V. D. Kupradze, T. G. Gegelia, M. O. Basheleishvili, and T. V. Burchuladze, Three-dimensional problems of the mathematical theory of elasticity and thermoelasticity. (Russian) *Nauka, Moscow*, 1976.
80. V. D. Kupradze, T. G. Gegelia, M. O. Basheleishvili, and T. V. Burchuladze, Three-dimensional problems of the mathematical theory of elasticity and thermoelasticity. *North-Holland Publ. Comp., Amsterdam*, 1979.
81. N. Lazrieva, M. Mania, G. Mari, A. Mosidze, A. Toronjadze, T. Toronjadze, and T. Shervashidze, Probability theory and mathematical statistics for economists. (Georgian) *Tbilisi*, 2000, p. 662.
82. N. Lazrieva, M. Mania, G. Mirzashvili, T. Toronjadze, O. Glonti and L. Jamburia, Quatitative methods of financial analysis. (Georgian) *Tbilisi*, 1999, 695 pages.
83. A. Lomtadze and S. Mukhigulashvili, Some two-point boundary value problems for second order functional differential equations. *Masaryk University, Brno*, 2000, 72 pp.
84. G. M. Mania, Methods of mathematical statistics. *Georgian Acad. Sci. Publish., Tbilisi*, 1963.
85. G. M. Mania, Statistical estimation of probability distributions. *Tbilisi State University Publish., Tbilisi*, 1974.
86. A. Meskhi, Measure of Non-compactness for Integral Operators in Weighted Lebesgue Spaces. *Nova Science Publishers, New York*, 2009, 140 pp.
87. Sh. E. Mikeladze, Numerical methods of integration of partial differential equations. (Russian) *Izd. Akad. Nauk SSSR, Moscow-Leningrad*, 1936.

88. Sh. E. Mikeladze, Theory and practice of interpolation. (Georgian) *Izd. Akad. Nauk Gruzin. SSR, Tbilisi*, 1946.
89. Sh. E. Mikeladze, Some problems of structural mechanics. (Russian) *Gostekhizdat, Moscow-Leningrad*, 1948.
90. Sh. E. Mikeladze, Numerical integration. (Russian) *Uspekhi matem. nauk (N.S.)* **3**(1948), No. 6(28), 3-88.
91. Sh. E. Mikeladze, New methods of integration of differential equations and their application to problems in the theory of elasticity. (Russian) *Gostekhizdat, Moscow-Leningrad*, 1951.
92. Sh. E. Mikeladze, Numerical methods of mathematical analysis. (Russian) *Gostekhizdat, Moscow*, 1953.
93. Sh. E. Mikeladze, Some problems of structural mechanics. (Chinese) *Sci. Publ., Peking*, 1956.
94. Sh. E. Mikeladze, Numerical methods of mathematical analysis. (Chinese) *Sci. Publ., Peking*, 1957.
95. Sh. E. Mikeladze, Solution of numerical equations. (Russian) *Metsnieraba, Tbilisi*, 1965.
96. S. Mukhigulashvili, Two-point boundary value problems for second order functional differential equations. *Mem. Differential Equations Math. Phys.* **20**(2000), 1-112.
97. N. Muskhelishvili, Applications des intégrales analogues à celles de Cauchy à quelques problèmes de la physique mathématique. *Tiflis, Edition de l'Université de Tiflis, Imprimerie de l'Etat*, 1922.
98. N. Muskhelishvili, Some basic problems of the mathematical theory of elasticity. Basic Equations, a plane problem, torsion and bending (Foreword by Academician A. N. Krilov). (Russian) *Acad. Sci. USSR, Leningrad*, 1933.
99. N. Muskhelishvili, Some basic problems of the mathematical theory of elasticity. Basic equations, a plane problem, torsion and bending. 2nd ed., revised and enlarged. (Russian) *Acad. Sci. USSR Publ. House, Moscow-Leningrad*, 1935.
100. N. Muskhelishvili, Singular integral equations, boundary value problems of the function theory and some of their applications to mathematical physics. (Russian) *Moscow -Leningrad*, 1946.
101. N. Muskhelishvili, Some basic problems of the mathematical theory of elasticity. Basic equations, the plane theory of elasticity, torsion and bending. 3rd ed., revised and enlarged. (Russian) *Moscow-Leningrad*, 1949.
102. N. Muskhelishvili, Some basic problems of the mathematical theory of elasticity. *Groningen, P. Noordhoff*, 1953.
103. N. Muskhelishvili, Singular integral equations. *Groningen, P. Noordhoff*, 1953 (*English translation of the Russian edition of 1946*).
104. N. Muskhelishvili, Some basic problems of the mathematical theory of elasticity. Basic equations, the plane theory of elasticity, torsion and bending. 4th ed., revised and enlarged. (Russian) *Acad. Sci. USSR Publ. House*, 1954.

105. N. Muskhelishvili, Singular integral equations. Boundary value problems of the theory of functions and some of their applications to mathematical physics. 2nd ed., revised. (Russian) *Fizmatgiz, Moscow*, 1962.
106. N. Muskhelishvili, Singuläre Integralgleichungen. Randwertprobleme der Funktionentheorie und Anwendungen auf die mathematische Physik. *Berlin, Akademie-Verlag*, 1965, XIV (German translation of the 2nd Russian edition of 1962).
107. N. Muskhelishvili, Some basic problems of the mathematical theory of elasticity. Basic equations, the plane theory of elasticity, torsion and bending. 5th ed., revised and enlarged. (Russian) *Nauka, Moscow*, 1966.
108. N. Muskhelishvili, Singular integral equations. Boundary value problems of the theory of functions and some of their applications to mathematical physics. 3rd ed., revised and enlarged. (Russian) *Nauka, Moscow*, 1968.
109. N. Muskhelishvili, Singular integral equations. Boundary value problems of the theory of functions and some of their applications in mathematical physics. (Georgian) *Metsniereba, Tbilisi*, 1982.
110. N. Muskhelishvili, Applications of Cauchy type integrals to some problems of mathematical physics. (Georgian) *Metsniereba, Tbilisi*, 1992.
111. E. Obolashvili, Fourier transformation and its application to the theory of elasticity. (Russian) *Metsniereba, Tbilisi*, 1979.
112. E. Obolashvili, Foundations of the mathematical theory of elasticity. (Georgian) *Tbilisi University Press, Tbilisi*, 1993.
113. E. Obolashvili, Partial differential equations in Clifford analysis. *Pitman Monographs and Surveys in Pure and Appl. Math., Addison Wesley Longman*, 1998.
114. E. Obolashvili, Higher order partial differential equations in Clifford Analysis. Effective solutions to problems. *Birkhuser, Boston-Basel-Berlin*, 2002.
115. Sh. S. Pkhakadze, To the theory of the Lebesgue measure. (Russian) *Trudy Tbiliss. Mat. Inst. Razmadze Akad. Nauk Gruzin. SSR* **25**(1958), 3-271.
116. S. Saneblidze, Perturbation and obstruction theories in fibre spaces. *Proc. A. Razmadze Math. Inst.* **111**(1994), 1-106.
117. G. Tevzadze, Conformal pair of conjugate affine Norden connectedness and some problems of the projective differential geometry. *Trudy Tbiliss. Mat. Inst.* **56**(1976), 1-128.
118. T. Toronjadze, Stochastic equations in the problems of semimartingale parameter estimation. *Journal of Mathematical Sciences* **132**, *Kluwer Academic/Consultants Bureau, New York*, 2002, 1-240.
119. I. Vekua, New methods of solution of elliptic equations. (Russian) *Gostekhizdat, Moscow-Leningrad*, 1948.
120. I. Vekua, On one method of calculating of prismatic shells. (Russian) *Trudy Tbilis. Mat. Inst.* **21**(1955), 191-259.

121. I. Vekua, Systeme von Differentialgleichungen erster Ordnung vom elliptischen Typus und Randwertaufgaben mit einer Anwendung in der Theorie der Schalen. *Deutscher Verlag. Wiss.*, 1956.
122. I. Vekua, Generalized analytic functions. (Russian) *Fizmatgiz, Moscow*, 1959.
123. I. Vekua, Systems of first order differential equations of elliptic type and boundary value problems with an application to the shell theory. (Chinese) *Peking, Gao den tsiya-o-yu chubanshe*, 1960, VII.
124. I. Vekua, Generalized analytic functions. *Oxford-London-New York-Paris*, 1962.
125. I. Vekua, Verallgemeinerte analytische Funktionen. *Berlin, Akad. Verlag*, 1963.
126. I. Vekua, Theory of thin shallow shells of variable thickness. (Russian) *Trudy Tbilis. Mat. Inst. Razmadze*, **30**(1965), 5-103.
127. I. Vekua, New methods for solving elliptic equations. *North-Holland Publ. Co., Amsterdam*, 1967.
128. I. Vekua, Some general methods of constructing various versions of shell theory. (Russian) *Nauka, Moscow*.
129. I. Vekua, Shell theory: general methods of construction. *Pitman Advanced Publishing Program, Boston-London-Melbourne*, 1985.
130. N. P. Vekua, Systems of singular integral equations and some boundary value problems. (Russian) *Gostekhizdat, Moscow*, 1950.
131. N. P. Vekua, Systems of singular integral equations. *P. Noordhoff-Groninger-Holland*, 1967.
132. N. P. Vekua, Systems of singular integral equations and some boundary value problems. 2nd ad., revised and enlarged. (Russian) *Nauka, Moscow*, 1970.
133. A. Walfisz, Pell's equation. (Russian) *Tbilisi*, 1952.
134. A. Walfisz, On the representation of numbers by sums of squares. Asymptotic formulas. *Amer. Math. Soc. Transl., Ser. 2,3*(1956), 163-248.
135. A. Walfisz, Gitterpunkte in mehrdimensionalen Kugeln. *Panst. Wyd. Naukowe, Warszawa*, 1957.
136. A. Walfisz, Lattice points in manydimensional spheres. (Russian) *Publ. Acad. of Sci., Tbilisi*, 1960.
137. A. Walfisz, Weylsche Exponentialsummen in der neueren Zahlentheorie. *VEB D. Verl. Wissen., Berlin*, 1963.