

ფიზიკა-მათემატიკის მეცნიერებათა დოქტორი,  
პროფესორი ღავით გიორგის ძე ნატროშვილი  
სამეცნიერო შრომები

1. D.Natroshvili, *Explicit solutions to the basic boundary value problems of elastostatics for an isotropic ball*. Tr. In-ta Prikl. Mat. Tbilis. Univ., 3, 1972, 127-140.
2. D.Natroshvili, *Explicit solutions to the third and the fourth boundary value problems of elastostatics for a bal.* Soobshch. Akad. Nauk Gruz. SSR. 63(3), 1972, 557-560.
3. D.Natroshvili, *Some fundamental and mixed type boundary vale problems for a semi-ball*. Annot. Dokl. Sem. In-ta Prikl. Mat. Tbilis. Univ., 8, 1973, 9-18.
4. D.Natroshvili, *The basic contact problem for a sphere*. Annot. Dokl. Sem. In-ta Prikl. Mat. Tbilis. Univ., 8, 1973, 19-22.
5. D.Natroshvili, *Explicit solutions to boundary and boundary-contact value problems of elastostatics*. Candidate Thesis. Tbilisi University, 1973, 140pp.
6. D.Natroshvili, *Explicit solutions to the basic three-dimensional statical problems of thermoelasticity for concrete domains*. Konferenz. Molod. Uch. Aspirant. In-ta Prikl. Mat. Tbilis. Univ., 1974, 107-108.
7. D.Natroshvili, *Explicit solutions to the basic boundary value problems of the non-symmetric theory of elasticity for a half-space*. Soobshch. Akad. Nauk Gruz. SSR, 76(1), 1974, 57-60.
8. D.Natroshvili, *Analogies of Poisson and Diny formulas in the thermoelasticity for a sphere*. Annot. Dokl. In-ta Prikl. Mat. Tbilis. Univ., 10, 1975, 55-58.
9. D.Natroshvili, A.Djagmaidze, *Solutions to the basic boundary value problems of statics of the non-symmetric theory of elasticity for a ball*. Annot. Dokl. In-ta Prikl. Mat. Tbilis. Univ., 10, 1975, 49-53
10. D.Natroshvili, M.Basheleishvili, *On the uniqueness of solutions to the Cauchy problem in the non-symmetric theory of elasticity*. Nekot. Zad. Teor. Uprug., Sbornik Tr., Tbilisi, 1975, 21-28.
11. D.Natroshvili, A.Djagmaidze, *General representation of a solution to the static equations of non-symmetric theory of elasticity and some applications*. Nekot. Zad. Teor. Upr., Sbornik Tr., Tbilisi, 1975, 93-112.
12. D.Natroshvili, *Explicit solutions to the basic boundary value problems for the biharmonic equation in exterior to a circle and a ball by means of Green's functions*. Tr. Tbilis. Univ., 166, 1976, 30-35.
13. D.Natroshvili, *Solution to the Cauchy problem of the equations of the non-symmetric theory of elasticity*. Annot. Dokl. Sem. In-ta Prikl. Mat. Tbilis. Univ., 11, 1976, 45-50.

14. D.Natroshvili, M.Basheleishvili, *Existence theorems of solutions to the basic boundary value problems of elasticity for transversally isotropic bodies*. Dokl. Akad. Nauk. SSSR, 231(1), 1976, 53-57.
15. D.Natroshvili, *Solutions to the basic boundary value problems of statics of the non-symmetric theory of elasticity for a half-space by Fourier method*. Annot. Dokl. Sem. In-ta Prikl. Mat. Tbilis. Univ., 11, 1976, 5-18.
16. D.Natroshvili, *On the uniqueness theorem of solutions to the Cauchy problem in anisotropic elasticity*. Soobshch. Akad. Nauk Gruz. SSR, 85(2), 1977, 321-324.
17. D.Natroshvili, *Solution to the Cauchy problem in the anisotropic elasticity*. Soobshch. Akad. Nauk Gruz. SSR, 85(1), 1977, 49-52.
18. D.Natroshvili, A.Djagmaidze, *Some static and dynamic problems of the theory of elasticity for piecewise homogeneous bodies*. The Third National Congress in Theoretical and Applied Mechanics, Varna 13-16 Sept., Proc. I, Sophia, 1977, 551-555.
19. D.Natroshvili, *General representation of solutions to the steady state oscillation equations of the non-symmetric theory of elasticity and applications in dynamic Problems*. Tr. In-ta Prikl. Mat. Tbilis. Univ., 5-6, 1978, 225-234.
20. D.Natroshvili, *Estimate of Green's tensors of the theory of elasticity*. Differential'nye Uravnenia, XIV, 7, 1978, 1272-1284.
21. D.Natroshvili, *Maximum principle in the non-symmetric theory of elasticity*. Differential'nye Uravnenia, XIV, 9, 1978, 1649-1658.
22. D.Natroshvili, A.Djagmaidze, *Dynamic problems of the theory of elasticity for piecewise homogeneous bodies*. Tbilisi University, Tbilisi, 1978, 64pp.
23. D.Natroshvili, *Estimate of Green's tensors of the theory of elasticity and their applications*. Tbilisi University, Tbilisi, 1978, 135pp.
24. D.Natroshvili, M.Basheleishvili, *Dynamic problems of the theory of elasticity for homogeneous anisotropic bodies*. Tr. Tbilis. Univ., 204, 1978, 24-46.
25. D.Natroshvili, *On fundamental matrices of steady state oscillation and pseudo-oscillation equations of anisotropic elasticity*. Soobshch. Akad. Nauk Gruz. SSR, 96(1), 1979, 49-52.
26. D.Natroshvili, *Limiting absorption principle in the anisotropic elasticity*. Soobshch. Akad. Nauk Gruz. SSR, 96(2), 1979, 309-312.
27. D.Natroshvili, A.Djagmaidze, M.Svanadze, *Some contact problems for piecewise homogeneous bodies*. All-Union Conf. in the Theory of Elasticity. Abstracts. Erevan, 13-16 November, 1979, 242-245.
28. D.Natroshvili, M.Basheleishvili, *Application of the singular integral equation method in the boundary value problems of the theory of elasticity for transversally isotropic bodies*. In: Differential and Integral Equations, Boundary Value Problems. Tbilisi University, Tbilisi, 1979, 11-32.

29. D.Natroshvili, *Solutions of dynamic problems for a ball*. Nekot. Zad. Teor. Upr., Sbornik Tr., Tbilisi, 1980, 72-88.
30. D.Natroshvili, A.Djagmaidze, *Solutions to the basic dynamic problems of the non-symmetric theory of elasticity for a ball and spherical layer*. Nekot. Zad. Teor. Upr., Sbornik Tr., Tbilisi, 1980, 89-104.
31. D.Natroshvili, A.Djagmaidze, M.Svanadze, *Boundary-contact value problems of the elasticity theory*. Tbilisi University, Tbilisi, 1980, 88pp.
32. D.Natroshvili, M.Svanadze, *Dynamic problems of coupled thermoelasticity for piecewise homogeneous bodies*. Tr. In-ta Prikl. Mat. Tbilis. Univ., 10, 1981, 99-190.
33. D.Natroshvili, *On the alternative version of proving the existence theorems in exterior problems of the steady state oscillation theory*. Tr. In-ta Prikl. Mat. Tbilis. Univ., 10, 1981, 90-98.
34. D.Natroshvili, *On an integral equation of the first kind*. Soobshch. Akad. Nauk Gruz. SSR, 102(3), 1981, 565-568.
35. D.Natroshvili, *Properties of fundamental solutions to the steady state oscillation equations of anisotropic elasticity*. Soobshch. Akad. Nauk Gruz. SSR, 104(3), 1981, 557-560.
36. D.Natroshvili, M. Svanadze. *Basic boundary and boundary-contact value problems of anisotropic elastostatics*. Tbilisi University, Tbilisi, 1981, 84pp.
37. D.Natroshvili, M.Svanadze, *Explicit solutions to the dynamic problems of the anisotropic elasticity theory*. Soobshch. Akad. Nauk Gruz. SSR, 104(2), 1981, 313-316.
38. D.Natroshvili, M.Svanadze, *Dynamic contact problems of the elasticity theory for piecewise homogeneous bodies*. Conf. in: Mechanics and Theory of Elasticity, Telavi, 30 Sept.-5 Oct., 1981, Abstracts, Tbilisi, 1981, 62-63.
39. D.Natroshvili, A.Djagmaidze, *Investigation of boundary-contact value problems of statics of the non-symmetric theory of elasticity*. Conf. in Mechanics and Theory of Elasticity, Telavi, 30 Sept. - 5 Oct., 1981. Abstracts, Tbilisi, 1981, 62-63.
40. D.Natroshvili. *Uniqueness theorems in exterior problems of steady state oscillation theory for anisotropic medium*. Soobshch. Akad. Nauk Gruz. SSR, 105(2), 1982, 261-264.
41. D.Natroshvili, *Existence theorems in the exterior problems of steady state oscillation theory for anisotropic medium*. Soobshch. Akad. Nauk Gruz. SSR, 106(1), 1982, 33-36.
42. D.Natroshvili, *Basic dynamic problems of the thermoelasticity theory for anisotropic layer*. Conf. in Applied Mathematics and Mechanics, 19-20 Novemb. 1981, Abstracts, Tbilisi, 1983, 129-134.
43. D.Natroshvili, A.Djagmaidze, *Boundary-contact value problems of the non-symmetric theory of elasticity*. Tr. In-ta Prikl. Mat. Tbilis. Univ., 12, 1983, 69-90.

44. D.Natroshvili, *Potential method in the anisotropic thermoelasticity*. 8 Tagung Uber Probleme und Methoden der Mathematische Physik. Vortragsauszüge 8 TMP. Technische Hochschule Karl-Marx-Stadt. 1983, 37.
45. D.Natroshvili, A.Djagmaidze, *Initial boundary-contact problems in the non-symmetric theory of elasticity*. X Conf. of Mathematicians of Georgia, Telavi, 9-12 November, 1983. Abstracts, Tbilisi, 1983, 113.
46. D.Natroshvili, *Dynamic problems of the anisotropic thermoelasticity theory*, *Differentsial'nye Uravnenia*, XX, 1, 1984, 87-98.
47. D.Natroshvili, *Boundary value problems of statics of the linear theory of elastic mixtures*. The II All- Union Conf. in the Theory of Elasticity, 8-10 Dec., 1984, Abstracts, Tbilisi University, Tbilisi. 1984, 202-203.
48. D.Natroshvili, *Investigation of boundary value and initial boundary value problems of the mathematical theory of anisotropic elasticity and thermoelasticity by potential method*. Doctor thesis, Tbilisi Institute of Mathematics (Georgian Academy of Sciences), Tbilisi, 1984, 325pp.
49. D.Natroshvili, *Equilibrium of a half-space with a spherical cavity*. Tr. In-ta Prikl. Mat. Tbilisi. Univ., 16, 1985, 149-154.
50. D.Natroshvili, *On the regularization of an integral equation of the first kind*. Soobshch. Akad. Nauk Gruz. SSR, 117(3), 1985, 501-504.
51. D.Natroshvili, A.Djagmaidze, *Dynamic problems of the non-symmetric theory of elasticity for piecewise homogeneous bodies*. Tr. In-ta Prikl. Mat. Tbilis. Univ. 16, 1985, 155-181.
52. D.Natroshvili, *On some boundary-value problems of the theory of elastic mixtures*. Tr. Sem. I. Vekua In-ta Prikl. Mat. Tbilis. Univ. 22-25 Apr., 1986. Tbilisi, 1986, 87-90.
53. D.Natroshvili, A.Djagmaidze, M.Svanadze, *Dynamic problems of the theory of elastic mixtures and constructing the explicit solutions to the static problems*. XI Conf. of Mathematicians of Georgia, Kutaisi, 28-30 May, 1986. Kutaisi, 1986, 213.
54. D.Natroshvili, A.Djagmaidze, M.Svanadze, *Problems of the linear theory of elastic mixtures*. Tbilisi University, Tbilisi, 1986, 215pp.
55. D.Natroshvili, *The third and the fourth boundary value problems of the theory of elasticity for anisotropic bodies*. Tr. In-ta Prikl. Mat. Tbilis. Univ., 23, 1988 89-104.
56. D.Natroshvili, *Investigation of the third and the fourth boundary value problems of the anisotropic elasticity*. All-Union Symposium: "Modern Problems of Mathematical Physics", Tbilisi, 22-24 April, 1987. Proceedings, Vol. 2, Tbilisi, 1988, 285-294.
57. D.Natroshvili, *Potential methods in the theory of elastic mixtures*. 9 Tagung Uber Probleme und Methoden der Mathematischen Physik. Autorreferate der Kurzvorträge. Karl-Marx-Stadt, 1988, 30.

58. D.Natroshvili, M.Svanadze, *Potential method in the problems of linear theory of elastic mixtures. In: Problems and Methods in Mathematical Physics.* 9 TMP, Karl-Marx-Stadt, 1988. Proc., Teubner Texte zur Mathematik, 1988, 199-206.
59. D.Natroshvili, A.Djagmaidze, L.Giorgashvili, Sh.Zazashvili, M.Usanetashvili, *Boundary-contact value problems of dynamics and steady state oscillations of linear theory of elastic mixtures.* Conf. Dynamical Problems of Mechanics, Krasnodar, 1988, 105-106.
60. D.Natroshvili, R.Duduchava, E.Shargorodsky, *On continuity of generalized solutions to the boundary value problems of the mathematical theory of cracks.* Soobshch. Akad. Nauk Gruz. SSR, 135(3), 1989, 497-500.
61. D.Natroshvili, R.Duduchava, E.Shargorodsky, *Basic boundary value problems of the mathematical theory of cracks for anisotropic medium.* Proc. of Seminar of I.Vekua Institute of Tbilisi University, Tbilisi, 1989, 87-90.
62. D.Natroshvili, *Exterior boundary-contact value problems of steady state oscillations of anisotropic bodies.* IV Conf. on Differential Equations and Applications, 13-19 Aug., 1989, Rouse, Abstracts, 211.
63. D.Natroshvili, *Exterior boundary value problems for differential equations of steady state oscillations of anisotropic elasticity.* Proc. of the International Conf. on Differential Equations and Applications held in Rouse, Bulgaria, 13-19 Aug., 1989, Rouse, 1991, 444-455.
64. D.Natroshvili, *Method of generalized series in anisotropic elasticity.* Tr. In-ta Prikl. Mat. Tbilisi. Univ. 39, 1990, 110-132.
65. D.Natroshvili, R.Duduchava, E.Shargorodsky, *Boundary value problems of the mathematical theory of cracks.* Tr. In-ta Prikl. Mat. Tbilisi. Univ., 39, 1990, 68-84.
66. D.Natroshvili, O.Chkadua, E.Shargorodsky, *Mixed type boundary value problems of the anisotropic elasticity.* Tr. In-ta Prikl. Mat. Tbilisi Univ., 39, 1990 133-181.
67. D.Natroshvili, E.Shargorodsky, *Three-dimensional problems of dynamics for elastic bodies with cuts.* Soobshch. Akad. Nauk Gruz.SSR, 140(2), 1990, 281-284.
68. D.Natroshvili, E.Shargorodsky, *Mixed type boundary value problems of steady state oscillations for anisotropic bodies.* Conf. in: Dynamics of Solid Bodies and Stability of Motion, 1990, Donetsk, 57-58.
69. D.Natroshvili, *Non-classical contact problems for anisotropic bodies.* Reports of Enlarged Session of the Seminar of I. Vekua Institute of Tbilisi University, Tbilisi State University, Vol.6, No.2, 116-119, 1991.
70. D.Natroshvili, *Stability of solution to the first boundary value problem with respect to variation of domain.* Soobshch. Akad. Nauk Gruz. SSR, 142(2), 1991, 289-292.
71. D.Natroshvili, *Crack problems in the anisotropic thermoelasticity.* Abstracts: Continuum Mechanics and Related Problems of Analysis. Symposium Dedicated to the Centenary of Academician N. Muskhelishvili. Tbilisi, 1991, 103.

72. D.Natroshvili, R.Duduchava, E. Shargorodsky, *Mixed boundary-contact value problems for piecewise homogeneous anisotropic bodies*. Abstracts: Mechanics of Non-homogeneous Structures. The Third Conference, 17-19 Sept., 1991, Lvov, 110.
73. D.Natroshvili, *Mathematical problems of the theory of elasticity of an anisotropic medium*. Proceedings of I.Vekua Inst. of Applied Mathematics, Tbilisi State University, 46, 1992, 147-159.
74. D.Natroshvili, *Boundary-contact problems of the steady state oscillation theory for piecewise homogeneous elastic medium*. Proceedings of I.Vekua Inst. of Applied Mathematics, Tbilisi State University, 46, 1992, 134-146.
75. D.Natroshvili, G.Arsenashvili, *Interface problems of the theory of elastic mixtures*. Reports of Enlarged Session of the Seminar of I.Vekua Inst. of Applied Mathematics, Tbilisi State University, Vol.8, No.2, 8-11, 1993.
76. D.Natroshvili, I.Sigua, *Interface problems of the theory of thermoelasticity for anisotropic bodies*. Reports of Enlarged Session of the Seminar of I.Vekua Inst. of Applied Mathematics, Tbilisi State University, Vol.8, No.2, 72-75, 1993.
77. D.Natroshvili, R.Duduchava, E. Shargorodsky, *Mathematical problems of thermoelasticity for bodies with cuts*. Extended Abstracts. International Symposium on Boundary Element Methods, IABEM 93, August 16-19,1993, Braunschweig.
78. D.Natroshvili, *Mathematical problems of the anisotropic elasticity for piecewise homogeneous bodies*. In: Jentsch, Tröltzsch (eds.), Problems and Methods in Mathematical Physics, Teubner-Texte Zur Mathematik, Band 134, Stuttgart-Leipzig, 1994, 100-110.
79. D.Natroshvili, L.Jentsch, *Non-classical interface problems for piecewise homogeneous anisotropic elastic bodies*, Mathematical Methods in the Applied Sciences, vol. 18, 1995, 27-49.
80. D.Natroshvili, *Mixed interface problems for anisotropic elastic bodies*. Georgian Mathematical Journal, Vol. 2, No. 6, 631-652, 1995.
81. D.Natroshvili, *Two-dimensional steady state oscillation problems of anisotropic elasticity*. Georgian Mathematical Journal, Vol. 3, No. 3, 239-262, 1996.
82. D.Natroshvili, *Boundary integral equation method in the mixed type interface problems of the anisotropic elasticity*. Abstracts, STAMM-94, Symposium on Trends in Applications of Mathematics to Mechanics, Lisboa, 23-30, July,1994.
83. D.Natroshvili, R.Duduchava, E.Shargorodsky, *Basic boundary value problems of thermoelasticity for anisotropic bodies with cuts, I*, Georgian Mathematical Journal, Vol. 2, No. 2, 1995, 123-140
84. D.Natroshvili, R.Duduchava, E.Shargorodsky, *Basic boundary value problems of thermoelasticity for anisotropic bodies with cuts, II*. Georgian Mathematical Journal, Vol. 2, No. 3, 1995, 259-276.
85. D.Natroshvili, G.Sadunishvili, *Interaction of elastic and scalar fields*, Math. Methods in Applied Sciences, Vol. 19, No. 18, (1996), 1445-1469.

86. D.Natroshvili, L.Jentsch, *Non-classical mixed interface problems for anisotropic bodies*. DFG - Schwerpunkt. Randelementmethoden. Bericht Nr. 94-17. Mathematisches Institute A, Stuttgart Universit.,t, 1994. Mathematische Nachrichten, Vol.179 (1996), 161-186.
87. D.Natroshvili, G.Arsenashvili, *Transmission problems of the linear theory of elastic mixtures*, Applied Mathematics and Informatics, 1, 1, 1-23, 1996.
88. D.Natroshvili, *Boundary integral equation method in the steady state oscillation problems for anisotropic bodies*. (a talk given at the Oberwolfach conference "Randelementmethoden: Anwendungen und Fehleranalysis", 02.10-08.10, 1994.) Math. Methods in Applied Sciences, Vol. 20, No. 2, 95-119, 1997.
89. D.Natroshvili, L.Jentsch, W.Wendland, *General transmission problems in the theory of elastic oscillations of anisotropic bodies*, Mathematisches Institut A, Stuttgart University, Bericht Nr. 95-7, 1-42.
90. D.Natroshvili, R.Duduchava, *Mixed crack type problem of anisotropic elasticity*, Mathematische Nachrichten, No.191, 83-107, 1998.
91. D.Natroshvili, R.Duduchava, E.Shargorodsky, *Pseudodifferential Equations on Manifolds with Boundary: Theory and Applications*, (in preparation)
92. D.Natroshvili, L.Jentsch, *Thermoelastic oscillations of anisotropic bodies*.TU Chemnitz-Zwickau, Fakultät für Mathematik, Preprint 96-1, 1996.
93. D.Natroshvili, *Steady-state oscillation problems in anisotropic elasticity*, (ICIAM/GAMM 95, 3-7 July, 1995, Hamburg, The Third International Congress on Industrial and Applied Mathematics , Book of Abstracts, p.189.) ZAMM, 76 (1996), S2, 125-128.
94. D.Natroshvili, L.Jentsch, I.Sigua, *Sommerfeld-Kupradze type radiation conditions in the theory of thermoelastic vibrations of anisotropic bodies*, Symposium on trends in applications of mathematics to mechanics, STAMM-96, Warsaw, 2-7 September,1996. Book of Abstracts, Inst. of fundamental Technical Research Polish Academy of Sciences, Warsaw, 1996, p. 56.
95. D.Natroshvili, L.Jentsch, *Steady state thermoelastic oscillation problems for anisotropic bodies*. ECCOMAS 96, 3-13 September, 1996, Paris, Maison de la Chimie, Paris, 1996, 51-52.
96. D.Natroshvili, L.Jentsch, I.Sigua, *Thermoelastic oscillation problems for piecewise homogeneous anisotropic bodies*. Modern Mathematical Methods in Diffraction Theory and its Applications in Engineering, Abstracts of Sommerfeld'96-Workshop, Freudenstadt, 30 September-4 October,1996, TH Darmstadt, Preprint 1868, p.31, 1996.
97. D.Natroshvili, L.Jentsch, *Thermoelastic oscillations of anisotropic bodies*; Modern Mathematical Methods in Diffraction Theory and its Applications in Engineering, Abstracts of Sommerfeld'96-Workshop, Freudenstadt, 30 September-4 October,1996, TH Darmstadt, Preprint 1868, p.4, 1996.
98. D.Natroshvili, R.Duduchava, *Mixed crack type problems in anisotropic elasticity*, Modern Mathematical Methods in Diffraction Theory and its Applications in Engineering, Abstracts

of Sommerfeld'96-Workshop, Freudanstadt, 30 September-4 October, 1996, TH Darmstadt, Preprint 1868, p.19-20, 1996.

99. D.Natroshvili, G.Arsenashvili, *Boundary value problems of the linear theory of two-component composites*. Conference on Analysis, Numerics and Application of Differential and Integral equations, Stuttgart, October 9-11, 1996, Abstracts, University of Stuttgart, 1996.
100. D.Natroshvili, L.Jentsch, W.L.Wendland, *General transmission problems in the theory of elastic oscillations of anisotropic bodies*, Conference on Analysis, Numerics and Application of Differential and Integral equations, Stuttgart, October 9-11, 1996, Abstracts, University of Stuttgart, 1996.
101. D.Natroshvili, *Thermoelastic oscillations of anisotropic bodies*, Sommerfeld'96-orkshop, TU ChemnitzZwickau, Fakultät für Mathematik, Preprint 96-13, 1996. Published in: E.Meister (Ed.), *Methoden und Verfahren der mathematischen Physik*, Band 42, Peter Lang, Frankfurt am Main, Berlin, New York, Paris, Wien, 68-87, 1997. (L. Jentsch)
102. D.Natroshvili, L.Jentsch, I.Sigua, *Mixed interface problems of thermoelastic pseudo-oscillations*. TU Chemnitz-Zwickau, Fakultät für Mathematik, Preprint 97-1, 1997.
103. D.Natroshvili, L.Jentsch, *Interaction between thermoelastic and scalar oscillation fields*, *Integral Equations and Operator Theory*, 28(1997), 261-288.
104. D.Natroshvili, L.Jentsch, *Interaction between thermoelastic and scalar oscillation fields*. General anisotropic case. TU Chemnitz-Zwickau, Fakultät für Mathematik, Preprint 97-5, 1997.
105. D.Natroshvili, L.Jentsch, W.L.Wendland, *Basic and mixed interface problems in the theory of elastic oscillations of anisotropic bodies*. In: M.Bach, C.Constanda, G.C.Hsiao, A.-M.Sändig, P.Werner (Eds.) *Analysis, Numerics and Application of Differential and Integral equations*, (Proceedings of the conference held in Stuttgart, October 9-11, 1996), Longman, Dorset, 116-121, 1998.
106. D.Natroshvili, L.Jentsch, *Mathematical problems of the thermoelasticity theory of anisotropic bodies*. In: *Thermal Stresses'97*, Proceedings of the Second International Symposium on Thermal Stresses and Related Topics (held in Rochester Institute of Technology, USA, June 8-11, 1997), Rochester Institute of Technology, Rochester, 513-516, 1997.
107. D.Natroshvili, *Mathematical problems of thermoelastic vibrations*. Abstracts, The International ISAAC'97 Congress, USA, University of Delaware, Newark, June 3-7, 1997.
108. D.Natroshvili, *Boundary integral equations method in the theory of thermoelastic vibrations*. Abstracts, Conference on Boundary Integral Methods: Theory and Applications, UK, University of Salford, Manchester, September 15-18, 1997.
109. D.Natroshvili, I.Sigua, *The mixed boundary value problem of the thermoelastic pseudo-oscillations*, *Bulletin of the Georgian Academy of Sciences*, 155, 1, 31-36, 1997.



110. D.Natroshvili, L.Jentsch, *Non-local approach in mathematical problems of fluid-structure interaction*, (TU Chemnitz, Fakultät für Mathematik, Preprint 98-1, 1998) *Mathematical Methods in the Applied Sciences*, 22, 13-42, 1999.
111. D.Natroshvili, L.Jentsch, *Three-dimensional mathematical problems of thermoelasticity of anisotropic bodies*, TU Chemnitz, Fakultät für Mathematik, Preprint 98-3, 1998.
112. D.Natroshvili, Sh.Zazashvili, *The interface crack problems for anisotropic bodies*, TU Chemnitz, Fakultät für Mathematik, Preprint 98-4, 1998. (Proceedings of I.Vekua Institute of Applied Mathematics v. 49, 1999, 54-75.
113. D.Natroshvili, L.Jentsch, W.Wendland, *General transmission problems in the theory of elastic oscillations of anisotropic bodies (Basic interface problems)*, I, *Journal of Mathematical Analysis and Applications*, 220, 397-433, 1998.
114. D.Natroshvili, L.Jentsch, W.Wendland, *General transmission problems in the theory of elastic oscillations of anisotropic bodies (Mixed interface problems)*, II, *Journal of Mathematical Analysis and Applications*, 235, 418-434, 1999.
115. D.Natroshvili, *Interface crack problem for a piecewise homogeneous anisotropic plane*, 5-th International Conference on Integral Methods in Science and Engineering (IMSE'98), August 10-13, 1998, Michigan Tech., Houghton, USA, Abstracts of IMSE'98, p. 98. [Also: International Conference on Multi-field Problems, October 6-8, 1999, University of Stuttgart, Germany. Book of abstracts, Bericht 99/12, p. 93
116. D.Natroshvili, Sh.Zazashvili, *Interface crack problem for a piecewise homogeneous anisotropic plane*. In: B.Bertram, C.Constanda and A.Struthers (eds.), *Integral Methods in Science and engineering*. Chapman & Hall/CRC, London, 2000. 252-257.
117. D.Natroshvili, *Interaction between vector and scalar fields in anisotropic medium*, 5-th International Conference on Integral Methods in Science and Engineering (IMSE'98), August 10-13, 1998, Michigan Tech., Houghton, USA, Abstracts of IMSE'98, p. 57.
118. D.Natroshvili, *Direct and inverse problems of fluid-structure interaction*, International Congress of Mathematicians (ICM 1998), August 18-27, 1998, Berlin, Abstracts of Short Communications and Poster Sessions, pp. 241-242.
119. D.Natroshvili, A.-M.Sändig and W.L.Wendland, *Fluid-structure interaction problems*, In: M.Bonet, A.-M.Sändig and W.L.Wendland (Eds.), *Mathematical aspects of boundary element methods*, Chapman & Hall/CRC, Research Notes in Mathematics, 252-262, 1999. (IABEM98 conference in Palaiseau, Ecole Polytechnique, Paris, 25-29 May, 1998. Minisymposium: Mathematical Aspects of Boundary Element Methods, dedicated to Vladimir Maz'ya on the occasion of his 60th birthday).
120. D.Natroshvili, *Uniqueness theorems for inverse fluid-solid interaction problems*, Abstracts p. 34, 11.TMP, International Conference on Recent Advances in Analytical and Numerical Treatment of Operator Equations (in memory of Prof S.Prössdorf), March 25-28, 1999, Chemnitz, Germany.

121. D.Natroshvili, L.Jentsch, *Three-dimensional mathematical problems of thermoelasticity of anisotropic bodies*. Part I, *Memoirs on Differential Equations and Mathematical Physics*, v. 17, 1999, 7-126.
122. D.Natroshvili, L.Jentsch, *Three-dimensional mathematical problems of thermoelasticity of anisotropic bodies*, Part II, *Memoirs on Differential Equations and Mathematical Physics*, v. 18, 1999, 1-50.
123. D.Natroshvili, S.Kharibegashvili, Z.Tediashvili, *Direct and inverse fluid-structure interaction problems*, *Rendiconti di Matematica, Serie VII*, vol. 20, Roma, 2000, 57-92.
124. D.Natroshvili, Z.Tediashvili, *Mixed type direct and inverse scattering problems*, *Operator Theory: Advances and Applications*, vol. 121, 2001, 366-389. (In memory of Prof S.Prössdorf)
125. D.Natroshvili, A.Gachechiladze, *Boundary variational inequality approach in the elasticity for the Signorini problem*, *Georgian Mathematical Journal*, Vol. 8, No. 3 (2001), 469-492.
126. D.Natroshvili, G.Karseladze, *Uniqueness results for fluid-solid interaction problems* *Bulletin of the Georgian Academy of Sciences*, v. 164, 3(2001), 454-457.
127. D.Natroshvili, W.L.Wendland, *Boundary variational inequalities in the theory of interface crack problems*, Stuttgart University, SFB 404, Preprint No. 2002/12, 2002.
128. D.Natroshvili, T.Arens, S.N.Chandler-Wilde, *Uniqueness, existence, and integral equation formulation for interface scattering problems*, *Memoirs on Differential Equations and Mathematical Physics*, Vol. 30 (2003), 105-146
129. D.Natroshvili, S.N.Chandler-Wilde *The Dirichlet metaharmonic Green's function for unbounded regions*, *Memoirs on Differential Equations and Mathematical Physics*, Vol. 30 (2003), 51-103.
130. D.Natroshvili, G.Jaiani, S.Kharibegashvili, W.L.Wendland, *Hierarchical models for cusped plates*, Stuttgart University, SFB 404, Preprint No. 2002/13, 2002.
131. D.Natroshvili, *Interface scattering problems*, *International Congress of Mathematicians*, Beijing 2002, August 20-28, Abstracts of Short Communications and Poster Sessions, Higher Educational Press, Beijing, 2002, p. 227
132. D.Natroshvili, G.Devdariani, G.Jaiani, S.Kharibegashvili, *The Dirichlet's boundary value problem for the system of cusped prismatic shells*, *Applied Mathematics and Informatics*, **5**, No.2 (2000), 26-46
133. D.Natroshvili, L.Giorgashvili, I.Stratis, *Mathematical problems of the theory of elasticity of chiral materials*, *Applied Mathematics, Informatics, and Mechanics*, **8**, No.1 (2003), 47-103.
134. D.Natroshvili, *Crack problems and boundary variational inequalities*, In: C.Constanda, etc. (eds), *Integral Methods in Science and Engineering*, Birkhäuser-Verlag,

- Boston, Basel, Berlin, 2004, 168-174. (Proceedings of the International Conference IMSE 2002, Saint--Etienne (France), August 7-10, 2002).
135. D.Natroshvili, G.Jaiani, S.Kharibegashvili, W.L.Wendland, *Hierarchical models for cusped plates and bars*, Lecture Notes of TICMI (Tbilisi University Press, Tbilisi), Vol. 4, 2003.
  136. D.Natroshvili, I.Stratis, *Mathematical problems of the theory of elasticity of chiral materials for Lipschitz domains*, Mathematical Methods in the Applied Sciences, **29** Issue 4 (2006), 445-478.
  137. D.Natroshvili, O.Chkadua, S.Mikhailov, *Boundary-domain integro-differential equations (Part I)* Accepted for publication: "Journal of Integral Equations and Applications")
  138. D.Natroshvili, O.Chkadua, S.Mikhailov, *Boundary-domain integro-differential equations (Part II)* (Accepted for publication: "Journal of Integral Equations and Applications")
  139. D.Natroshvili, W.L.Wendland, *Boundary variational inequalities in the theory of interface crack problems*. In: Operator Theory: Advances and Applications, Vol. 147, Operator Theoretical Methods and Applications to Mathematical Physics (Erhard Meister Memorial Volume), Birkhöuser Verlag, Basel-Boston-Berlin, 2004, 387-402.
  140. D.Natroshvili, *Mathematical problems of the theory of elasticity of chiral materials*, Third International Conference on Boundary Integral Methods: Theory and Applications, University of Reading, UK, 2004, 14-18 September, Abstracts, p.17.
  141. D.Natroshvili, T.Buchukuri, O.Chkadua, A.-M. Sändig, *Solvability and regularity results to boundary-transmission problems for metallic and piezoelectric elastic materials*. Stuttgart University, Institut für Angewandte Analysis und Numerische Simulation, Preprint No. 004, 2005, pp.1-56. Accepted for publication in: Math. Nachr.
  142. D.Natroshvili, G.Jaiani, S.Kharibegashvili, W.L.Wendland, *Two-dimensional hierarchical models for prismatic shells with thickness vanishing at the boundary*, Journal of Elasticity, **77**, No. 2 (2004), 95-122.
  143. D.Natroshvili, G.Sadunishvili, I.Sigua, *Some remarks concerning Jones eigenfrequencies and Jones modes*, Georgian Mathematical Journal, **12**, No. 2 (2005), 337-348.
  144. D.Natroshvili, G.Sadunishvili, I.Sigua, Z.Tediashvili, *Fluid-solid interaction: acoustic scattering by an elastic obstacle with Lipschitz boundary*, Memoirs on Differential Equations and Mathematical Physics, **35**, (2005), 91-127.
  145. D.Natroshvili, L.Giorgashvili, Sh.Zazashvili, *Steady state oscillation problems in the theory of elasticity for chiral materials*, Journal of Integral Equations and Applications **17**, No. 1, Spring (2005), 19-69.
  146. D.Natroshvili, *Boundary integral equations method in the elasticity theory of hemitropic materials*, International Conference on Operator Theory, Function Spaces and Applications, Aveiro (Portugal), 7-9 July, 2005, Book of Abstracts, University of Aveiro, 2005, p. 21.

147. D.Natroshvili, L.Giorgashvili, I.Stratis, *Representation formulae of general solutions in the theory of hemitropic elasticity*, Quarterly Journal of Mechanics and Applied Mathematics, Vol. 59, Part 4 (2006), 451-474.
148. D.Natroshvili, L.Castro, I.Stratis, *Wave scattering by an elastic obstacle with interior cuts*, Math. Nachr., **280**, No.9-10 (2007), 996-1013.
149. D.Natroshvili, L.Castro, *The potential method for the reactance wave diffraction problem in a scale of spaces*, Georgian Mathematical Journal, **13**, No. 2 (2006), 251-260.
150. D.Natroshvili, L.Castro, *The reactance wave diffraction problem by a strip in a scale of Bessel potential spaces*, Opuscula Mathematica, **26**, No. 2 (2006), 289-303.
151. D.Natroshvili, R.Gachechiladze, I.Gwinner, *A boundary variational inequality approach to unilateral contact with hemitropic materials*, Memoirs on Differential Equations and Mathematical Physics, **39** (2006), 69-103.
152. D.Natroshvili, Sh.Zazashvili, *Mixed type boundary value problems in the linear theory of elastic mixtures for bodies with interior cuts*, Memoirs on Differential Equations and Mathematical Physics, Vol. 42, 2007, 69-91.
153. D.Natroshvili, T.Buchukuri, O.Chkadua, *Mathematical modelling and analysis of interaction problems for metallic-piezoelectric structures with regard to thermal stresses*, Second International Workshop: Direct and Inverse Problems in Piezoelectricity, Hirschegg (Kleinwalsertal), Austria, July 16-19, 2006. W. Geis, A.-M. Sändig (eds.), Book of abstracts, Stuttgart University, 2006, p. 14. (See also: University of Stuttgart, IANS, Preprint 2006/008, pp. 1-64)
154. D.Natroshvili, T.Buchukuri, O.Chkadua, *Three-dimensional finite element modelling of a piezoelectric actuator with regard to thermal effects*, Second International Workshop: Direct and Inverse Problems in Piezoelectricity, Hirschegg (Kleinwalsertal), Austria, July 16-19, 2006. W. Geis, A.-M. Sändig (eds.), Book of abstracts, Stuttgart University, p. 4.
155. D.Natroshvili, T.Buchukuri, O.Chkadua, *The solvability and asymptotics of solutions of crack-type boundary value problems of thermopiezoelectricity*, Second International Workshop: Direct and Inverse Problems in Piezoelectricity, Hirschegg (Kleinwalsertal), Austria, July 16-19, 2006. W. Geis, A.-M. Sändig (eds.), Book of abstracts, Stuttgart University, p. 5.
156. D.Natroshvili, *Transmission problems related to the interaction of metallic and piezoelectric materials*. International Congress of Mathematicians (ICM 2006), Madrid, Spain, 22 August - 30 August, 2006. Book of Abstracts: Posters, Short Communications, Mathematical Software, Other Activities. European Mathematical Society, 2006, p. 423.
157. D.Natroshvili, T.Buchukuri, O.Chkadua, *Mathematical modelling and analysis of interaction problems for piezoelectric composites*. Rendiconti Accademia Nazionale delle Scienze detta dei XL, Memorie di Matematica e Applicazioni 124° (2006), Vol. XXX, fasc. 1, 159-190.
158. D.Natroshvili, *Mathematical problems for piezoelectric-metallic composites: Existence and regularity results*. Book of Abstracts of ICIAM 2007 (the 6th INTERNATIONAL

- CONGRESS ON INDUSTRIAL AND APPLIED MATHEMATICS, 16-20 July, 2007, Zurich, Switzerland), University of Zurich and ETH Zurich, 2007, p. 499.
159. D.Natroshvili, T.Buchukuri, O.Chkadua, *Mathematical problems for piezoelectric-metallic composites: Existence and stress singularity analysis*. Proceedings of WAVES 2007 (the 8th International Conference on Mathematical and Numerical Aspects of waves, 23-27 July, 2007, Reading, UK), University of Reading, 2007, 324-326.
  160. D.Natroshvili, T.Buchukuri, O.Chkadua, *Application of pseudodifferential equations in the theory of piezoelectric-metallic composites*. The 6th INTERNATIONAL ISAAC CONGRESS, 13-18 August, 2007, Middle East Technical University, Ankara, Turkey. Book of Abstracts, METU, Ankara, 2007, p. 90.
  161. D.Natroshvili, L.Giorgashili, S.Zazashvili, *General representation of solutions to the system of differential equations of hemitropic elasticity and its applications*. The 6th INTERNATIONAL ISAAC CONGRESS, 13-18 August, 2007, Middle East Technical University, Ankara, Turkey,. Book of Abstracts, METU, Ankara, 2007, pp. 90-91.
  162. D.Natroshvili, T.Buchukuri, O.Chkadua, *Mathematical problems for piezoelectric-metallic composites*, Fourth International Conference of Applied Mathematics and Computing, August 12-18, 2007, Plovdiv, Bulgaria, Book of Abstracts, Volume 4, p.423.
  163. D.Natroshvili, O.Chkadua, S.Mikhailov, *About analysis of some localized boundary-domain integral equations for variable-coefficient BVPs*. Advances in Boundary Integral Methods, Proceedings of the Sixth UK Conference on Boundary Integral Methods, Edited by J.Trevelyan, Durham University Publ., UK, ISBN 978-0-9535558-3-3, 2007, 291-302.
  164. D.Natroshvili, A.Gachechiladze, R.Gachechiladze, I.Stratis, *Transmission problems in the theory of elastic hemitropic materials*, *Applicable Analysis*, **86**, 12 (2007), 1463-1508
  165. D.Natroshvili, N.Chinchaladze, R.Gilbert, G.Jaiani, S.Kharibegashvili, *Existence and Uniqueness Theorems for Cusped Prismatic Shells in the N-th Hierarchical Model*. *Mathematical Methods in the Applied Sciences*, **31**, No. 11 (2008), 1345-1367.
  166. D.Natroshvili, T.Buchukuri, O.Chkadua, A.-M.Sändig, *Interaction problems of metallic and piezoelectric elastic materials with regard to thermal stresses*. *Memoirs on Differential Equations and Mathematical Physics*, Vol. 45, 2008, 7-74.
  167. D.Natroshvili, T.Buchukuri, O.Chkadua, *Mixed boundary value problems of thermopiezoelectricity for solids with interior cracks*. Accepted for publication in: *Integral Equations and Operator Theory*
  168. D.Natroshvili, I.Stratis, S.Zazashvili, *Boundary integral equation methods in the theory of elasticity of hemitropic materials: a brief review*. Accepted for publication in: *Journal of Computational and Applied Mathematics (JCAM) ( WAVES-07 )*
  169. D.Natroshvili, O.Chkadua, S.Mikhailov, *Analysis of some localized boundary-domain integral equations*, Accepted for publication: *Journal of Integral Equations and Applications (JIEA)*

170. D.Natroshvili, L. Giorgashvili, *Representation formulas of general solutions to the static equations of the hemitropic elasticity theory*, Memoirs on Differential Equations and Mathematical Physics, **46**, (2009), 129-146.
171. D.Natroshvili, R.Gachechiladze, I.Stratis, *Transmission and crack problems in the theory of elastic hemitropic materials*, 79-th Annual Meeting of the International Association of Applied Mathematics and Mechanics, 31 March-4 April, 2008, Bremen, Germany (Book of Abstracts, web-page: [www.zarm.uni-bremen.de/gamm2008](http://www.zarm.uni-bremen.de/gamm2008)).
172. D.Natroshvili, *Stress singularity analysis in mathematical problems for piezoelectric-metallic composites*, International Workshop: Analysis, Partial Differential Equations and Applications, On the occasion of the 70th birthday of Vladimir Maz'ya, Rome, Italy, June 30- July 3, 2008. Book of Abstracts, Istituto Nazionale di Alta Matematica Francesco Severi, 2008, p. 39.
173. D.Natroshvili, O.Chkadua, *Stress singularity analysis for piezoelectric-metallic composite structures*, The 10th International Conference on Integral Methods in Science and Engineering, IMSE2008, Santander, Spain, 7-10 July, 2008. Book of Abstracts, Universidad de Cantabria, 2008, p. 149.
174. D.Natroshvili, I.Stratis, S.Zazashvili, *Interface crack problems for metallic--piezoelectric composite structures*. Accepted for publication in: Mathematical Methods in the Applied Sciences (MMAS)
175. D.Natroshvili, T.Buchukuri, O.Chkadua, R.Duduchava, *Interface crack problems for metallic-piezoelectric composite structures with regard to thermal effects*. In preparation
176. D.Natroshvili, A.Gachechiladze, R.Gachechiladze, *Unilateral contact problems with friction for hemitropic elastic solids*. Submitted to: Georgian Mathematical Journal
177. D.Natroshvili, C.E.Athanasiadis, V.Sevrouglou, I.G.Stratis, *A boundary integral equations approach for mixed impedance problems in elasticity*. Accepted for publication in: Integral Equations and Applications
178. D.Natroshvili, *Mixed interface crack problems for composed solid structures*, The International Conference on Modern Problems in Applied Mathematics (dedicated to the 90-th anniversary of Iv. Javakhishvili Tbilisi State University and 40-th anniversary of I. Vekua Institute of Applied Mathematics of TSU), Book of Abstracts, Tbilisi, University Press, 2008, p. 72.
179. D.Natroshvili, O.Chkadua, T.Buchukuri, *Mixed boundary value problems of piezoelectricity for solids with cracks*. The International Conference on Modern Problems in Applied Mathematics (dedicated to the 90-th anniversary of Iv. Javakhishvili Tbilisi State University and 40-th anniversary of I. Vekua Institute of Applied Mathematics of TSU), Book of Abstracts, Tbilisi, University Press, 2008, p. 71.
180. D.Natroshvili, N.Chinchaladze, R.P.Gilbert, G.Jaiani, S.Kharibegashvili, *Cusped Elastic Beams under the Action of Stresses and Concentrated Forces in  $(0,0)$  Approximation*, Submitted to: Applicable Analysis.

181. D.Natroshvili, Z.Tediashvili, *Crack Problems for Composite Structures*, Accepted for publication in: "Operator Theory: Advances and Applications" (volume - dedicated to V.Maz'ya)
182. D.Natroshvili, L.Giorgashvili, S.Zazashvili, *Mathematical problems of thermoelasticity for hemitropic solids*, Submitted to: *Memoirs on Differential Equations and Mathematical Physics*
183. D.Natroshvili, A.Gachechiladze, R.Gachechiladze, J.Gwinner, *Interior and exterior contact problems with friction for hemitropic solids: boundary variational inequality approach*, In preparation
184. D.Natroshvili, N.Chinchaladze, R.P.Gilbert, G.Jaiani, S.Kharibegashvili, *Fluid-solid interaction dynamical problems*, Accepted for publication in: *Proceedings of I.Vekua Institute of Applied Mathematics*
185. D.Natroshvili, A.Gachechiladze, R.Gachechiladze, *The Unilateral Contact of Two Elastic Hemitropic Media*, Submitted to: *Memoirs on Differential Equations and Mathematical Physics*

### **Text books (in Georgian)**

1. D.Natroshvili, L.Giorgashvili, M.Usanetashvili, G.Jashiashvili, *Mathematics for economists*, Global Print, Tbilisi, 1999.
2. D.Natroshvili, G.Sadunishvili, M.Shubladze, T.Aliashvili, *Mathematics (For students of humanitarian faculties)*, Georgian Technical University, Tbilisi, 2000.
3. D.Natroshvili, O.Zumburidze, T.Davitashvili, S.Ebralidze, M.Miminoshvili, G.Mchedlidze, G.Samsonadze *Engineering Mathematics*, Georgian Technical University, Tbilisi , Global Print, Tbilisi, 2001.
4. D.Natroshvili, O.Meladze, T.Zandukeli, *Elementary Mathematics: tests and material for entrance exams*, Georgian Technical University, Tbilisi, 2001.
5. D.Natroshvili, G.Samsonadze, M.Shubladze, *Linear Algebra with applications*, Part I, Georgian Technical University, Tbilisi, 2002.
6. D.Natroshvili, G.Samsonadze, M.Shubladze, R.Bitsadze, *Linear Algebra with applications*, Part II, Georgian Technical University, Tbilisi, 2003.
7. D.Natroshvili, L.Giorgashvili, G.Jashiashvili, *Mathematics for economists*, Second Edition, "Akhali Ivroni", Tbilisi, 2008.