

### **D.S. Anikonov's list of publications**

- 1. D.S. Anikonov, About inverse problems of a transport equation. Proceedings of 11-the post-graduate student conference, 1973, Novosibirsk State University, pp. 11-22, (in Russian).**
- 2. D.S. Anikonov, About inverse problems of the transport equation. Differential Equations (1974), N.1, pp.7-17, (in Russian).**
- 3. D.S. Anikonov, To inverse problems in transport theory. Proceedings of All-Union School-Conference "Methods of solving incorrect problems", 1974, Moscow State University, pp. 23-25, (in Russian).**
- 4. D.S. Anikonov, Setting and investigation of uniqueness of inverse problems for transport theory, Proceedings of the seminar governed by of G.I. Marchuk, 1974, v.7, pp. 3-17, (in Russian).**
- 5. D.S. Anikonov, Inverse problems in transport theory. Theses of Anikonov's candidate dissertation. Institute of Mathematics SB of USSR AS, pp.3-12, (in Russian).**
- 6. D.S. Anikonov, About one inverse problem in transport theory. Siberian Mathematical Journal, 1975, v.16, N. 3, pp. 432-439, (in Russian).**
- 7. D.S. Anikonov, About uniqueness of determination of a coefficient and the right-hand side of the transport equation. Differential Equations (1975), N.1, pp.8-18, (in Russian).**
- 8. D.S. Anikonov, About one problem for the transport equation. Siberian Mathematical Journal (1975), v.26, N.3, (in Russian).**
- 9. D.S. Anikonov, The inverse problem of determination of a body for a transport equation. Differential Equations, 1976, v.12, N.1, pp.567-570, (in Russian).**
- 10. D.S. Anikonov, About boundedness of singular integral operator. Mathematical Reports (1977), v.104(106), N.4(12), pp.551-534, (in Russian).**
- 11. D.S. Anikonov, Uniqueness of determination of the right-hand side in the transport equation for 3-D case. Differential Equations, 1977, v.11, N.1, pp.3-18, (in Russian).**
- 12. D.S. Anikonov, To the question of uniqueness of solving inverse problems for equations of mathematical physics. Differential equations (1979), v.15, N.1, pp.3-9, (in Russian).**
- 13. D.S. Anikonov, Solving of 3-D inverse problems for the transport equations. Dynamics of Continuous Media (1979), v.50, pp. 43-47, (in Russian).**
- 14. D.S. Anikonov, Numerical methods. Textbook for students of Novosibirsk Trade Institute, 1980, preprint N.7, pp.2-15, (in Russian).**
- 15. D.S. Anikonov, The case of purely absorption in an inverse problem of the transport equation. Theses of the school-seminar "Theory and methods of solving incorrect problems", 1983, Samarkand, 29 September – 6 October, pp.23-25, (in Russian).**
- 16. D.S. Anikonov, Determination of medium parameters given radiation on the boundary. Theses of the conference on calculative tomography, Novosibirsk, 1983, pp.14-16, (in Russian).**
- 17. D.S. Anikonov, Examinations in the Novosibirsk Trade Institute, 1980, preprint N.9, pp.2-18, (in Russian).**
- 18. D.S. Anikonov, Many-dimensional inverse problems for the transport theory. Differential Equations (1984), v.20, N.5, pp.817-824, (in Russian).**
- 19. D.S. Anikonov, Uniqueness of determination of a coefficient in the transport equation by using the special source. Dokl. of RAS, 1984, v.284, N.5, pp.511-515, (in Russian).**
- 20. D.S. Anikonov, Uniqueness of determination of both coefficients of the transport equation. Dokl. of RAS (1984), v.277, N.4, pp.1033-1037, (in Russian).**
- 21. D.S. Anikonov, Tomography problem solution by the special type of a source. In book: "Linear and nonlinear problems of computational tomography" (1985), Novosibirsk, pp.3-10, (in Russian).**

22. D.S. Anikonov, A spherical symmetry case in an inverse problem for a transport equation. Theses of reports of the conference "All-Union School-conference to incorrect problems, 1985, Saratov, 29.06.1985, pp.24-26, (in Russian).
23. D.S. Anikonov, Possibility of creation of a numerical algorithm for solving an inverse problem in transport theory. Proceedings of All- Union School-Conference to Incorrect Problems, 1986, Krasnojarsk, pp. 14-22, (in Russian).
24. D.S. Anikonov, Quasi-solution of a problem of numerical differentiation. News of Kaz. Academy of Sciences, physical and mathematical series (1987), v.3(136), pp.10-14, (in Russian).
25. D.S. Anikonov, To the question of smoothness of the solution of the transport equation. Theses of reports of the conference "Complex analyze and mathematical physics", 1987, pp.15, (in Russian).
26. D.S. Anikonov, One method for join determination of two coefficients in transport theory. News of Kaz. Academy of Sciences, physical and mathematical series (1987), v.3(136), pp.79-80, (in Russian).
27. D.S. Anikonov and G.I. Shegurova, Creation and analysis of industrial functions. Textbook for students of Novosibirsk Trade Institute, 1988, preprint N.13, pp.2-19, (in Russian).
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30. D.S. Anikonov and N.D. Galanina, System planning in trade. Textbook for students of Novosibirsk Trade Institute, 1988, preprint N.14, pp.2-10, (in Russian).
31. D.S. Anikonov and G.I. Shegurova, Theory of games in trade. Textbook for students of Novosibirsk Trade Institute, 1988, preprint N.19, pp.2-14, (in Russian).
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33. D.S. Anikonov, About one source of radiation. Proceedings of the All-union conference in Alma-Ata, 2-6 October, 1989, pp.16-19, (in Russian).
34. D.S. Anikonov, Determination of optical depth for a scattering medium. Theses of the all-union conference in Alma-Ata, 2-6 October, 1989, pp.23, (in Russian).
35. D.S. Anikonov, The 3-D inverse problems for the monoenergetic transport equation. Theses of Anikonov's doctor dissertation, Institute of Mathematics, SB of RAS, 1989, pp.3-21, (in Russian).
36. D.S. Anikonov, Scattering in X-ray tomography, 1989, Theses of reports of All-union conference on computation tomography, Tashkent, 10-14 October, 1989, pp.18, (in Russian).
37. D.S. Anikonov and I.Sh. Irkegulov, Determination of integral characteristics for the absorption coefficient in the transport equation. Dokl. of RAS, (1989), v.308, N.4, pp.838-841, (in Russian).
38. D.S. Anikonov and N.V. Shalanov, Mathematical models in trade. Textbook for students of Novosibirsk Trade Institute, 1988, preprint N.8, pp.2-21, (in Russian).
39. D.S. Anikonov, Method of partition in inverse problems of transport theory. Theses of reports of the conference "Integral equations and boundary-value problems", Vladivostok, 1990, pp.18-19, (in Russian).
40. D.S. Anikonov, One method of determination of integral characteristics, for the attenuation coefficient. Journal of computation mathematics and mathematical physics, 1990, v.30, N.8, pp.1262-1267, (in Russian).

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42. D.S. Anikonov and S.A. Shinkarenko, Software for the course "High Mathematics". Textbook for students of Novosibirsk Trade Institute, 1981, preprint N.15, pp.2-5, (in Russian).
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45. D.S. Anikonov, I.V. Prokhorov, Determination of the coefficient of the transport equation by using energy and angle singularities of outside radiation. *Dokl. of RAS*, (1992), v.327, N.2, pp.205-207, (in Russian).
46. D.S. Anikonov, Certain approaches to investigation of mathematical models in X-ray tomography. Theses of the conference "Ill-posed problems in mathematical physics", Novosibirsk, 1-5 July, 1992, pp.23-24, (in Russian).
47. D.S. Anikonov, Determination of boundary of inhomogeneous media by X-tomography methods. Abstract of international symposium of computation tomography, Novosibirsk, 1993, 10-14 August, pp.16, (in Russian).
48. D.S. Anikonov, I.V. Prokhorov, and A.E. Kovtanyuk, Some numerical experiments in tomography of scattering media. Proceedings of the conference "Computational Tomography", Novosibirsk, 1993, pp.25-31, (in English).
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59. D.S. Anikonov, Comparison of two mathematical models for transport theory. *Dokl. of RAS*, (1998), v.361, N.2, pp.171-173 (in Russian).

60. D.S. Anikonov, A.E. Kovtanyuk, and I.V. Prokhorov, Tomography through the transport equation. Proceedings IMA Volumes in Mathematics and its Applications "Computational Radiology and Imaging: Therapy and Diagnostics", Springer-Verlag, New York, 1999, v.110, pp.33-44, (in English).
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69. D.S. Anikonov and V.G. Nazarov, Integro-differential operator using incomplete data. Dokl. of RAS, 2001, v.376, N.1, pp.24-26, (in Russian).
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79. D.S. Anikonov, Possible way in mathematical modeling in mathematical physics. Theses of far eastern school-seminar, 2003, pp.15, (in Russian).
80. D.S. Anikonov, D.S. Konovalova, V.G. Nazarov, and I.V. Prokhorov, Investigation of inverse and other non-classical problems in Russian Far East. Proceedings of the conference on inverse problems, Hong-Kong, 2003, pp. 25-38, (in English).

- 81. D.S. Anikonov, D.S. Konovalova, Compton effect in transport theory. Dokl. of RAS, v.397, N5, 2004, pp.1-4, (in Russian).**
- 82. D.S. Anikonov and D.S. Konovalova, The boundary-value problem for the transport equation with purely Compton scattering. To be published in Siberian Mathematical Journal, 2005, v.46, N.1, (in Russian).**
- 83. D.S. Anikonov and I.V. Prokhorov, Formal estimation of quality of reconstruction in X-ray-tomography. Dokl. of RAS, 2005, in print, (in Russian).**
- 84. D.S. Anikonov and I.V. Prokhorov, Setting and numerical solving an optimization problem in X-ray tomography. Journal of Computative Mathematics and Mathematical physics, 2005, in print, (in Russian).**
- 85. D.S. Anikonov and V.G. Nazarov, Classification of non-homogeneous media by their coefficients of contrast. Optics and Spectroscopy, 2005, in print, (in Russian).**

**Note: 1. The English version of the mathematical part of Dokl. of RAS ( Doklady of Russian Academy of Sciences) is titled “Doklady Mathematics”.**