

CURRICULUM VITAE of Alexander G. RAMM

NAME: Alexander G. Ramm, Professor
CITIZENSHIP: U.S. Citizen
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Kansas State University
Manhattan, KS 66506-2602, USA.
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FAX - 785-532-0546
E-MAIL: ramm@math.ksu.edu
HOME PAGE: <http://www.math.ksu.edu/~ramm>
FIELD: Differential and integral equations
Operator theory, ill-posed and inverse problems
Mathematical Physics (scattering theory, inverse scattering, wave propagation)
Functional analysis and spectral theory
Applied mathematics
Theoretical numerical analysis
Theoretical electrical engineering, signal estimation, tomography

DEGREES: B.S., Leningrad State University, 1959
M.S., Leningrad State University, 1961
Ph.D., Moscow State University, 1964
Dr.Sci., Mathematics Institute Academy of Science, Minsk, 1972

EXPERIENCE:

1. Academic

Instructor, Leningrad Institute of Precision Mechanics and Optics, 1962-63
Assistant Professor, Leningrad Institute of Precision Mechanics and Optics, 1964-65
Associate Professor, Leningrad Institute of Precision Mechanics and Optics, 1965-78
Visiting Professor and Research Scientist, University of Michigan, 1979-81
Professor, Kansas State University, 1981-

Visiting Professor: University of Vienna, Goeteborg, Stuttgart, Bonn, Heidelberg, Manchester, London, Uppsala, Royal Inst. of Technology, Stockholm, Acad. Sinica, Taipei, Indian Institute of Science Bangalore, Concordia Univ., Montreal, Institute of Mathematics Ac.Sci USSR, Novosibirsk, Univ of Stockholm, Technion, Israel, Univ. of Cagliari and Milan, Wright Patterson Air Force Base, Univ. of Madrid, Univ. of Grenoble, Politecnico Milan, Univ of Giessen, Univ. of Singapore, Tokyo Metropolitan Univ., Univ. of Palermo, Hebrew Univ., IMPA-Brazil, LMA/CNRS-France, KAIST, Univ. of Leicester, IMPAN, Fulbright Research Professor, Univ. of Lviv (2015 May-Aug, 2016, May-Aug.)

2. Industry, Consulting

Senior Research Scientist, Institute of Precision Mechanics & Optics
Research Institute, 1964-78 (Electrical Engineering: Antennas and Propagation, Signal Estimation; Optics: Wave Scattering, Resolution Ability, Inverse Problems; Systems Theory, Ill-posed Problems, Network Theory).
Visiting Scientist, Schlumberger-Doll Research, (1983, August).
Consultant: Dikewood Corporation, Standard Oil Production Co., Los Alamos National Laboratory.

PROFESSIONAL RECOGNITION AND HONORS:

Distinguished Visiting Professor supported by Royal Acad. of Engineers, Sep.10-Oct.10, 2009, Univ. of Leicester.
Invited plenary one-hour speaker at the 7th PACOM. (Pan African Congress of Mathematicians), Aug3-8, 2009, Ivory Coast, Yamoussoukro.
Plenary speaker at the International Conference Chaos 2009, June 1-5, Chania, Greece,
Mercator Professor, 2007, Germany, TU Darmstadt.
Distinguished speaker at HKSTAM, June 18, 2005.
London Math. Soc. lecturer, May 24-June 10, 2005.
Khwarizmi International Award, Feb., 2004.
Distinguished foreign professor at the University of Cairo, Amer. Univ. of Cairo, Al-Azhar Univ. of Cairo, (Nov. 2004, Dec. 2006), Academy of Science of Mexico (Oct. 1997)
Distinguished Graduate Faculty Award (1997).
Fulbright Research Professorship at the Technion 1991-92.
Elected member of the New York Academy of Sciences (1994); Elected member of the Electromagnetics Academy MIT (1990).

Founding Member of the Board of the International Society for Analysis, its Applications and Computation (ISAAC) (1994).

Organizer of the special sessions at the A.M.S. meetings 1980, April, 1982 Jan., 1988 Jan., 1990 March, 1998 March
Certificate of Appreciation, Univ. of Michigan, 1981, for technologically promising ideas.

Faculty research award, KSU, 1982

Senior Visiting Fellowships: SERC of Great Britain, June-Aug 1984; University of Bonn, 1984, 1985, 1989; Univ. of Heidelberg 1987; NSERC of Canada, Concordia Univ., May-Aug 1990.

NATO grant for joint research with Prof. R. Burge and Dr. M. Fiddy (King's College), 1985-1986.

AFOSR, NSF and ONR travel and ordinary grants.

Certificate of Recognition, 11th world IMACS Congress, (1985).

Research Professor at WPAFB (summer 1993).

Research Professor at the Univ. of Cagliari and Milan (summer 1994).

Research Professor, Complutense Univ., Madrid, Univ. of Grenoble, Politecnico Milan, Technion, Haifa, 1995.

Research Professor, Univ. of Bremen, Inst. for Appl. and Comput. Math, Heraklion, Crete, 1996 (summer).

Research Professor, INRIA, Univ. of Grenoble, 1997 (summer).

DAAD Research Professor, Institute of theoretical physics, Univ. of Giessen, 1998 (summer)

Research Professor, Hebrew Univ and Ben-Gurion Univ., May-June 1999.

Research Professor, Univ. of Singapore, July 1999.

Research Professor, Univ. of Milano and Palermo, May-July, 2000.

Research Professor, IMPA, Jan 3-27, 2001,

DAAD Research Professor, May 20- Aug 20, 2001, Univ. of Giessen

CNRS Research Professor, Feb.1, 2002- Jan. 31, 2003.

KAIST, May 20-June 19, 2003

MFO, June 23-Aug 19, 2003

IAS Ben Gurion Univ., Hebrew Univ., May-June 2004

London Math. Soc. lecturer at the Univ. of Belfast, Bath, Edinburgh, Queen Mary Univ. and King's College, May 24-June 10, 2005

Distinguished speaker at HKSTAM, June 18, 2005, and City Univ. of Hong Kong, June 15-24, 2005.

IAS Ben Gurion Univ., May-June 2006.

Univ. of Leicester, May-June 2008.

ETHZ, May-June 2009, Univ. of Leicester, Sep. 10-Oct 10, 2009.

IMPAN, May 27-July 1, 2010.

MPI-Leipzig, May 16-Aug 13, 2011.

Beijing Institute of Technology, May 16-June 14, 2013

Fudan University, Dec 18, 2013-Jan 9, 2014

Fulbright Research Professor, Lviv's National University, May-Aug. 2015

Fulbright Research Professor, Lviv's National University, May-Aug. 2016

EDITORIAL WORK:

Associate Editor of the Journals: Research and Applications of Physics,(RAP), Global Journ Math. Anal., (GJMA), Mathematics, Jour. of Inequalities in Pure and Appl. Math. (JIPAM), International J. Comp. Sci and Math (IJCSM), Australian Jour. of Math Anal and Appl (AJMAA), International J. of Appl. Math. Sci., Jour. of Basic and Appl. Phys. (JBAP), International J. of Tomography and Statistics, Jour. of Functional Analysis and Approximation Theory (JFAAT), J. of Comput. Anal. Appl (JCAA), Advances in Nonlinear Analysis and Applications (ANAA), PanAmerican Math. Journal, Math. Sci. Research Journal, Internat. Journ. of Appl. Math., Internat. Journ. of Diff. Equations and Applications, Nonlinear Functional Analysis and Applications (NFAA), Cubo a Math. Journal, Journ. of Egypt. Math. Soc.

New York Academy of Science,
Electromagnetic Academy MIT,
International Society for Analysis, Applications and Computing,
American Mathematical Society,
International Assoc. of Math. Physics.

COLLOQUIUM TALKS: Princeton, Cornell, Brown, Madison-Wisconsin, Rice, Univ. of Delaware, Iowa St. Univ., Wayne St. Univ. Detroit, Univ. Of Utah, Salt Lake City, Texas A & M Univ., Kansas Univ. at Lawrence, Univ. of Alberta, Canada, Univ. of Bonn, Univ. of Stuttgart, Univ. of Mich., Argonne Nat. Lab., Naval Res. Lab., Math. Res. Center in Madison-Wisconsin, UCSD, UC Berkeley, Stanford, Mich. State Univ., Univ. of Pittsburgh, General Motors Res. Labs., Shell Res. Center, Houston, Univ. of W. VA., Univ. of Arizona, Washington St. Univ., Case Western Reserve Univ., Kansas St. Univ., Univ. of Madrid, Univ. of Florence, Univ. of Goteborg, Royal Institute of Technology, Stockholm, Univ. of Uppsala, Vrije Univ., Amsterdam, Nat. Bureau of Standards, Howard Univ.,

Univ. of Vienna, Tech. Univ. of Vienna, Schlumberger-Doll Research Lab., Ridgefield, CT., Univ. of Gottingen, Sohio Petroleum Research Lab., Dallas, Univ. of Minnesota, Minneapolis, Schlumberger Well Services, Houston, Univ. of Manchester, Univ. of London, Univ. of Tubingen, Univ. of Minnesota, Univ. of Marceille (Luminy), Univ. of Helsinki, Univ. of Muenchen, Royal Radar and Signal Establishment, Great Malvern. Catholic Univ. Washington D.C., ERIM, Ann Arbor, MI, Univ. of Nevada, Las Vegas, Acad. Sinica, Taipei, Indiana University, Bloomington, Wichita State University, University of Heidelberg, Bonn, Regensburg, Karlsruhe, Frankfurt, Bielefeld, Indian Institute of Science, Bangalore, Institute for basic research, Istanbul, IIT Delhi, Cornell University, Univ. of Munster, Univ. of Lund, Univ. of Linkoping, Courant Inst. NYU., RPI, Troy, Yale Univ., Boston Univ., Univ. of MD., Univ. of Lowell, Univ. of Paris Süd (Orsay), Univ. of Pierre and Marie Curie, Paris, Florida Atl. Univ., Boca Raton, Tech. Univ. of Berlin, Freie Univ. of Berlin, Univ. of Essen, Univ. of Düsseldorf, NASA Langley Research Center, Virginia Tech. Blacksburg, Institute of Mathematics, Bulgarian Acad. of Sci., Sofia, Univ. of Southwest Louisiana, Nat. Inst. of Standards and Technology, Boulder, Univ. of Aachen, FRG., Univ. of Montreal, Univ. of Kyoto, Univ. of Oklahoma, Univ. of TN., Inst. of Math. Acad. Sci., Novosibirsk, Inst. of Math., Acad. of Sci., Kiev., Univ. of Stockholm, Univ. of Paris-Sud., Polytech. of Turin, Univ. of Pavia, Univ. of Pisa, Politecnico of Milan Ecole Super. Electr., Gif sur Yvette, Inst. for Problems of Mechanics, Moscow, Univ. of Stockholm, Univ. of Uppsala, Inst. of Appl. Math., Moscow, Weizmann Institute, Hebrew Univ., Tel-Aviv Univ., Technion, Bar-Ilan Univ., Univ. of Beer Sheva, Univ. of Haifa, Tübitak Istanbul, TH Darmstadt, Univ. of Siegen, Univ. of Karlsruhe Geophys. Inst., Inst. of App. Math. Acad. Sinica, Beijing Univ., Fudan Univ., Univ. of Sci. & Tech., Hefei, Graduate School, Acad. Sinica, Univ. of Sci. & Tech., Hong Kong, Tokyo Metropol. Univ., Kyoto Univ., Univ. of Muenster, Georgia Tech., Univ. of Cincinnati, CWRU, Univ. of Dayton, Wright-Patterson AFB at Dayton, Novosibirsk Univ., Inst. of Math. Bulg. Acad. Sci., Los Alamos Nat. Lab., Univ. of New Mexico, Sandia Nat. Lab., Univ. of Cagliari, Univ. of Rome, Autonoma Univ. Madrid, Complutense Univ. Madrid, Univ. of Bilbao, Univ. of Barcelona, Supélec Paris, Univ. of Tenerife, IMA Univ. of Minnesota, Univ. of Carlos III, Madrid, Univ. of Grenoble, CNRS Marceille, Univ. of Paris 13, Univ. of Milan, Univ. of Naples, Univ. of Liege, INRIA-Rocquencourt, Univ. of Rome, IAC Rome, Univ. of Lyon, Univ. of Beer Sheva, Technion, Univ. of Milan, TH Darmstadt, Univ. of Erlangen, Univ. of Bremen vision center, Univ. of Athens, Tech. Univ. of Athens, Inst. for Appl and Comput. Math., Heraklion, Crete, UNAM Mexico City, INRIA-Grenoble, CNRS-Marceille, Univ. de Franche Comte-Besancon, IMAG-Grenoble, Univ. of Manitoba-Winnipeg, Autonoma Univ. Mexico City, Univ. of Tennessee at Knoxville, Oak Ridge National Lab., Univ. of Giessen, Chemnitz, Freiberg, Dresden, Bonn, Darmstadt, TU Vienna, Univ. of Vienna, Forschungszentrum Karlsruhe, Complutense Univ. Madrid, Autonoma Univ. Madrid, SDR Research, Univ. of Missouri, Univ. of Nagoya, Kyoto, Tokyo, UCLA, Caltech, Univ. of California at Irwine, at San Diego, Technion, Haifa Univ., Hebrew Univ., Ben-Gurion Univ., Weizmann Inst., Univ. of Palermo, Univ. of Singapore, Inst. of Math. of Nat. Acad. of Sci. of Ukraine, Kiev, Univ. of Lvov, Univ. of MO, Univ. of Milano, Bologna, Roma (La Sapienza), Palermo, Darmstadt, Stuttgart, Giessen, Pusan University, Korea, FAU (Frontiers of Science lecture), UCF, Orlando, Institute of mathematics, Yerevan, Los Alamos CNLS, Univ. Fed. Rio de Janeiro, IMPA, Univ. of Bologna, Pavia, Univ. of Muenster, Bonn, Giessen, Ecole Polytechnique, CNRS-LMS, Frankfurt, Stuttgart, Linz, Chemnitz, Autonoma Univ. Mexico City, Tokyo Metropolitan Univ., Nihon Univ., Meiji Univ., Univ. of Tokyo, Univ. of Kyoto, Polytech. Univ. of Torino, LMA/CNRS-Marseille, INRIA-Antibes, Univ. of Nice, Luminy-theor. physics, Weizmann Inst, Rehovot, Technion, Univ. of Haifa, Ben-Gurion Univ., Univ. of Uppsala, Univ. of Guanajuato at Salamanca, Univ. of Marseille-CMI, INRIA-Rockencourt, Yonsei Univ., SNU (Seoul Nat. Univ), KAIST, Univ. of Dresden, Dresden Math. Seminar, Ben-Gurion Univ., Hebrew Univ., Technion, Queen's Univ. of Belfast, Univ. of Bath, Univ. of Edinburgh, Univ. of Queen Mary, King's College, City Univ. of Hong Kong, Hong Kong Soc. of Theor. and Appl. Mechanics, Oklahoma Univ., LANL, Univ. of Giessen, Dresden, TU Darmstadt, GSI (Gesellschaft für Schwere Ions) Physics Institute, Karlsruhe, Konstanz, Lyon, Charles Univ. Prague, Math. Inst., Prague, TU Delft, Univ. of Barcelona, TU Darmstadt-EM division, IMDEA-Madrid, Bergacadem.-Freiberg, ETH-Zuerich, Univ. of Manchester, Leicester, Birmingham, UCL-Univ. Coll. London, UC Irvine, Oklahoma Univ., UCF Orlando, ETH, Univ. of Konstanz, Univ. of Lausanne, ETH Zurich, Univ. of Innsbruck, Univ. of Leicester, Birmingham, Loughborough, UCL-Univ. Coll., Imperial College-London, Autonoma Univ. Madrid, Univ. of Granada, Military Tech. Univ. of Warsaw, Inst. Probl. Tech. Acad. of Sci. of Poland, IMPAN, WIAS, Humboldt Univ., Univ. of Chemnitz, Univ. of Jena, Univ. of Crete, BIT (Beijing Inst. of Technology), Fudan Univ. (Mathematics Center), Fudan Univ. (Physics Institute), CCNU Wuhan, Univ. of Lisbon (Math. Department), Univ. of Lisbon (Phys. Department), Univ. of Lviv, Inst. for problems of mechanics and mathematics of Ukrainian Acad. of Sci., Univ. of Lviv, IMPAN, IFPAN

MONOGRAPHS and BOOKS:

1. Theory and applications of some new classes of integral equations. Springer Verlag, New York, 1980, pp.1-356; isbn 0-387-90540-5.
2. Iterative methods for calculating the static fields and wave scattering by small bodies. Springer Verlag, New York, 1982, pp.1-130; isbn 0-387-90682-7
3. Scattering by obstacles. Reidel, Dordrecht, 1986, pp.1-442;

isbn 90-277-2103-3

4. Random fields estimation theory. Longman Scientific & Wiley, New York, 1990, pp.1-281;

isbn 0-582-03768-9

5. Random fields estimation theory, Expanded Russian edition, Mir, Moscow, 1996, pp. 1-352;

isbn 5-03-003031-X

6. Multidimensional inverse scattering problems, Longman Scientific & Wiley, New York. 1992, pp.1-385;

isbn 0-582-05665-9;

7. Multidimensional inverse scattering problems, Expanded Russian edition, Mir, Moscow, 1994, pp.1-496;

isbn 5-03-002939-7

8. The Radon transform and local tomography. CRC Press, Boca Raton, 1996, pp.1-503 (with A.Katsevich);

isbn 0-8493-9492-9.

9. Spectral and scattering theory, Plenum publishers, New York, 1998 (editor A.G. Ramm)

isbn 0-306-45829-2

10. Inverse problems, tomography and image processing, Plenum publishers, New York, 1998 (editor A.G. Ramm)

isbn 0-306-45828-4

11. Operator Theory and Applications, Amer. Math. Soc., Fields Institute Communications, Providence RI, 2000 (editors A.G.Ramm, P.N.Shivakumar, A.V.Strauss).

isbn 0-8218-1990-9

12. Inverse problems, Springer, New York, 2005. isbn 0-387-23195-1

13. Wave scattering by small bodies of arbitrary shapes, World Sci. Publishers, Singapore, 2005.

isbn 981-256-186-2

14. Random fields estimation, World Sci. Publishers, Singapore, 2005.

isbn 981-256-536-1

15. Dynamical Systems Method for solving operator equations, Elsevier, Amsterdam, 2007.

isbn 0-444-52795-8

16. Dynamical Systems Method and Applications. Theoretical Developments and Numerical Examples.

Wiley and Sons, Hoboken, 2012.

isbn 978-1-118-02428-7

(with N.S. Hoang)

17. Scattering of Acoustic and Electromagnetic Waves by Small Bodies of Arbitrary Shapes. Applications to Creating New Engineered Materials,

Momentum Press, New York, 2013.

isbn-13: 978-1-60650-621-9

18. Scattering by obstacles and potentials, World Sci. Publ., Singapore, 2017.

isbn 9789813220966

19. Creating materials with a desired refraction coefficient, IOP Concise Physics, Morgan and Claypool Publishers, San Rafael, CA, USA, 2017.

isbn 978-1-6817-4709-5

US PATENTS:

1. Pseudolocal tomography (with A.Katsevich), number 5,539,800 issued July 23, 1996.

2. Enhanced local tomography (with A.Katsevich), number 5,550,892 issued Aug.27, 1996.

INVITED ADDRESSES:

1. All-union symposium on wave diffraction; Tbilisi, 1964

2. All-union conference on numerical mathematics, Moscow, 1965

3. International URSI symposium, Stressa/Italy, 1968

4. Third all-union meeting on theoretical and applied mechanics, Moscow, 1968

5. Third all-union conference on heat and mass transfer, Minsk, 1968

6. All-union symposium on wave diffraction, Leningrad, 1970

7. International URSI symposium on electromagnetic waves, Tbilisi, 1971

8. Fourth all-union conference on heat and mass transfer, Minsk, 1972

9. Conference on technical cybernetics, Moscow, 1972

10. International symposium on radioelectronics, Varna, 1974

11. International congress on acoustics, London, 1974

12. All-union seminar on the atom and atomic spectra theory, Tashkent, 1974

13. All-union symposium on the interaction of cosmic dust with the atmosphere, Ashhabad, 1974

14. International symposium on nonlinear networks, Split, Yugoslavia, 1975

15. International conference CVUT, Prague, 1975

16. All-union conference on differential equations, Rjazan, 1976
17. International Conference on Computer-Aided Design of Electromagnetic and Microwave Circuits and Systems, Hull, England 1977
18. International symposium on approximation theory, Campinas, Brazil 1977
19. All-union winter mathematical school, Voronezh, 1977
20. International Congress on applied mathematics, Weimar, DDR, 1978
21. All-union 10 symposium on the representation and analysis of random fields and processes, Suhumi, 1978
22. GAMM Tagung, Wiesbaden, BRD, April 1979
23. International symposium-workshop on wave scattering, Columbus, Ohio, June 1979
24. International symposium on ill-posed problems, Newark, Delaware, October 1979
25. Solutions of some inverse and ill-posed problems, Nav.Res.Lab., Wash. D.C., Oct. 9, 1979
26. A.M.S. Meeting, Kent, Ohio, Nov. 1979
27. A.M.S. Meeting, Boulder, Colorado, March 1980
28. A.M.S. Meeting, Bloomington, Indiana, April 1980
29. International symposium on nonlinear phenomena, Arlington, Texas, June 1980
30. Symposium on real analysis, Mich. State University, June 1980
31. Symposium on scattering theory, Oberwolfach, FRG, August 1980
32. A.M.S. 1980 summer meeting, August 1980 Ann Arbor, MI
33. Conference on integral equations, Oberwolfach, FRG, Dec. 1980
34. Mathematical foundations of the singularity and eigenmode expansion methods, Meeting at the University of Kentucky, Lexington, KY, Nov. 1980
35. International conference on spectral theory of differential operators, Birmingham, Alabama, March 26-28, 1981
36. IEEE International symposium on circuits and systems, Chicago, IL, April 27-29, 1981
37. A.M.S. Annual meeting, January 1981
38. 7th International Dundee conference on ordinary and partial differential equations, 3-29-82 to 4-3-82
39. IEEE International symposium on information theory, Les Arcs. France, 6-21-25-1982
40. IEEE International symposium on antennas and propagation, Univ. of New Mexico, Albuquerque, May 1982.
41. AMS annual meeting, Denver, Jan. 1983, Monotone operators and nonlinear passive systems (special session, invited talk)
42. 1983 International symposium on the mathematical theory of networks and systems, June 20-24, 1983, Ben Gurion Univ., Beer Sheva, Israel
43. 1983 International IEEE symposium CAS, Newport Beach, California, May 2-4, 1983
44. Conference on scattering theory, Oberwolfach, July 1983, FRG
45. NATO advanced research workshop on inverse scattering, Bad-Windsheim, FRG, Sept. 1983
46. AMS annual meeting, January 1984, special session PDE
47. International conference on P. D. E., Dundee, June 1984
48. Conference on PDE, Oberwolfach, March, 1985
49. 11th world IMACS congress, Oslo, August 1985, plenary talk
50. Finnish mathematical society meeting, May, 1985
51. Conference of the Chinese mathematicians, Taiwan, July 1986, plenary talk
52. International conference on operator theory, Oct. 1986
53. Conference on inverse problems, Montpellier, Dec. 1986
54. International conference on mathematical geophysics, West Berlin, Feb. 1987
55. AMS meetings March, April 1987
56. European Congress on Simulation, ECS-87, Sep. 1987, Plenary talk
57. Conference on numerical integration, Nov. 1987, Oberwolfach
58. AMS annual meeting, January 1988
59. Annual GAMM meeting, Vienna, April 1988, plenary talk
60. Workshop on inverse problems, Univ. of MD, March 1988
61. The first Woodward conference on Wave phenomena, June 1988, plenary talk
62. International conference on inverse problems, Montpellier, France, Dec. 1988 (2 one-hour lectures)
63. NSF conference on nonlinear wave equations Jan. 1989
64. Oberwolfach conference on differential equations (March 1989)
65. NSF workshop on inverse problems (July 29-August 4, 1989)
66. International conference on inverse problems (Bulgaria, Sep. 1989)
67. Oberwolfach conference on solitons, Jan. 1990
68. NSF conference on inverse scattering, June 1990
69. SIAM annual meeting, July 1990, minisymposium on inverse scattering.
70. International conference "Inverse problems in science and engineering", Osaka, Aug. 1990
71. International Congress of Mathematicians, Kyoto, August, 1990
72. Oberwolfach conference on statistical estimation, Nov. 1990

73. South Eastern conference on differential equations, Blacksburg, VA, Nov. 1990
74. International conference on mathematical modeling, key-note speaker, Univ.of MD, Apr. 1991
75. International conference on signal processing, Cetraro, Italy, plenary speaker, May 1991
76. International conference on ill-posed problems, plenary speaker, Moscow, Aug. 1991
77. International Workshop on inverse problems, invited speaker, Novosibirsk, Aug.1991
78. US-Israel NSF workshop on operator theory, Beer Sheva, Feb.1992, invited speaker.
79. International Conference of Computational Engineering Science, ICES-92, invited speaker, Dec. 1992, Hong Kong.
80. Third Midwest conference on geometry, Columbia, Apr. 1993.
81. International conference on quantum inversion, Bad Honnef, FRG, May 1993, plenary speaker.
82. International conference on dynamical systems, May 1993, Atlanta, plenary speaker.
83. International symposium on computerized tomography, Aug. 1993, Novosibirsk, Russia, plenary speaker.
84. International symposium on numerical methods, Aug. 1993, Plovdiv, plenary speaker.
85. International symposium on differential equations, Aug. 1993, Plovdiv, plenary speaker.
86. International symposium on Inverse problems, Sept. 1993, Potsdam, FRG, plenary speaker.
87. Oberwolfach conference on pseudodifferential operators, Jan. 1994, invited speaker.
88. Oberwolfach conference on tomography, Sep.1994, invited speaker.
89. 26th Midwest conference on differential equations, invited speaker, Oct 7-8, 1994.
90. International ASME conference, Chicago, Nov.7-11, 1994, invited speaker, special session on inverse problems in mechanics.
91. AMS-SIAM workshop on inverse problems, March 1995, invited speaker.
92. Oberwolfach conference on inverse problems, Feb. 1996, invited speaker.
93. World Congress of Nonlinear Analysts, WCNA-96, Jul.10-17, 1996, Athens, plenary speaker
94. International conference on inverse scattering, Sep.3-7, 1996, Lake Balaton-96, plenary speaker
95. International conference on inverse and ill-posed problems, IIPP-96, Sep.9-14, Moscow, plenary speaker.
96. Mexican math. soc. meeting, Oct.7-11, 1996, invited speaker.
97. ISAAC International Congress, June 2-7, 1997, plenary speaker.
98. The mathematics of life sciences, Jan. 28-31, 1998, Texas Tech. Univ., one-hour invited speaker.
99. International conference MTCP-98, modern trends in comput. physics, Joint Instit. for Nuclear Research, Dubna, June 15-20, 1998, plenary speaker.
100. Oberwolfach conference on tomography, Aug. 2-8, 1998, invited speaker.
101. International conference "Operator theory and applications" Winnipeg, Oct. 7-11, 1998, plenary speaker
102. Workshop on the Radon transform, Univ. of Nagoya, Nov. 1998, key-note speaker.
103. Braude College PDE days, main speaker, May 18-20, 1999,
104. Israel Math. Union annual meeting, invited speaker, May 26, 1999.
105. Internat. workshop on inverse problems and wave scattering, Lvov, Sep. 20-23, 1999, plenary speaker.
106. Internat. conference PDE 2000, Clausthal, Germany, July 24-28,2000.
107. Internat. conference on nonlinear analysis, Korea, Pusan, Aug.31-Sep.5, 2000, plenary speaker.
108. Internat. conference on dynamical systems and chaos, Armenia, Sep. 11-18, 2000, plenary speaker.
109. Mathematics and medical imaging, Frontiers of Science Lecture, FAU, Oct. 11, 2000
110. Dynamical systems and linear and nonlinear ill-posed problems, Los Alamos Nat. Lab, CNLS colloquium, Dec. 6, 2000
111. Inverse and direct problems and applications, Gargnano, Apr. 2-6, 2001, main lecturer
112. Dynamical systems and linear and nonlinear ill-posed problems, lectures at the Auton. Univ., Mexico City, Sep.17-21, 2001.
113. AMRTMA conference on acoustic, mechanics and related topics of mathematical analysis, June 2002, France.
114. Oberwolfach conference on tomography, Aug. 11-17, 2002
115. Conference on mathematical modelling of wave phenomena, Vaxjo University, Sweden, Nov. 3-8, 2002, plenary speaker
116. Internat. workshop on random fields, Guanajuato, Nov 27-30, 2002, plenary speaker
117. International seminar on nonlinear analysis and spectral problems, Complutense Univ., Madrid, June 14-16, 2004, invited speaker
118. Workshop on PDE, Hebrew Univ., June 2004, invited speaker.
119. IPAM conference "Mathematics of the Ear and Sound Signal Processing", January 31 - February 2, 2005
120. Midwest Geometry Conference, Apr 28-May 1, 2005, Ohio St. Univ
121. LMS lectures, May 24-June 10, 2005
122. HKSTAM, June 18, 2005, distinguished invited speaker.
123. 5icpe, Cambridge, July 9-16, 2005.
124. ICAM05-Internat. Conference on Appl. Math., Bandung, Aug.22-26, 2005, plenary speaker
125. ICMAA06-Internat. Conference on Math. Anal. and Appl., Assiut, Egypt, Jan 3-6, 2006, plenary speaker.
126. Midwest geometry conference, Univ. of Oklahoma, May 5-7, 2006.

- 127 ETOPI7, Sydney, July 9-14, 2006, plenary speaker.
 128 IPDO-2007, Miami, Apr. 16-18, 2007, key-note speaker.
 129 World Congress of Engineering and Applied Mathematics, London, July 2-4, 2007, key-note speaker.
 130 International Conference on Inverse Quantum Scattering Theory, Aug.27-31, 2007, Hungary, Lake Balaton-Siofok, plenary speaker.
 131 Workshop on PDE, Darmstadt, Sep. 24-26, 2007, invited speaker
 132 Analysis of Multiphase Problems, Prague, Oct. 8-12, 2007, special lecture.
 133 IMDEA-Madrid, Nov 29, 2007, invited talk.
 134 Oberwolfach workshop, Material Theories, Dec. 16-21, 2007, invited speaker
 135 International Conference Chaos-2008, Chaotic modeling and simulation, June 3-6, 2008, Chania, Crete, Greece, plenary speaker.
 136 World Congress of Nonlinear Analysts, WCNA-2008, Orlando, Florida, July2-9, 2009, key-note speaker.
 137 International Conference Chaos-2009, Chaotic modeling and simulation, June 1-5, 2009, Chania, Crete, Greece, plenary speaker,
 138 PanAfrican Congress of Mathematicians, PACOM7, Aug.3-8,2009, plenary one-hour speaker.
 139 International Workshop, DIPED2009, Lvov, Sep.21-24, 2009, plenary one-hour speaker.
 140 International Conference Chaos-2010, June 1-5, 2010, Chania, Crete, Greece, plenary speaker,
 141 International Conference Computational methods in Applied Mathematics, CMAM-4, June 20-26, 2010, Bedlewo, Poland,
 142 International Conference Chaos-2011, May 31-June 3, 2011, Agios Nikolaos, Crete, Greece, plenary speaker,
 143 International Conference on Differential and Difference Equations and Applications, July 4-8, 2011, Ponta Delgada, Univ of Azores, plenary speaker.
 144 ACEX-13, Plenary speaker, Madrid, July 1-5, 2013.
 145 International Conference Chaos-2014, Plenary speaker, Lisbon, June 7-10, 2014
 146 International Conference Chaos-2015, Plenary speaker, Paris, May 26-29, 2015
 147 International Conference MMET-2016, invited speaker, Lviv, July 5-7, 2016
 148 Intern. Conference Materials 2017, plenary speaker, Nov. 13-15, Las Vegas, Renaissance Hotel.

LIST OF COURSES TAUGHT:

Undergraduate courses:

Calculus and analytic geometry, advanced calculus, differential equations, technical calculus, linear algebra, elementary PDE, integral equations, special functions and their applications, mathematics:its form and impact.

Graduate courses:

Ordinary differential equations, PDE, functional analysis and its applications, spectral and scattering theory for differential equations, singular integral equations, complex analysis, theoretical numerical analysis, ill-posed problems, integral transforms, asymptotic methods, iterative solution of the static problems, mathematical methods for engineers, mathematics of wave propagation, electrodynamics, quantum mechanics, integral equations and applications, inverse scattering theory, inverse problems in analysis and PDE, nonlinear functional analysis, theory of passive networks, entire functions in antenna synthesis and optics, approximation theory, potential theory, calculus of variations, distribution theory, probability theory, random fields estimation theory.

Ph.D students

T. Miller, A.Zade-Chavoshi, Peiqing Li, A.Katsevich, Yan Chuntao, R.Hayrapetyan, A.Smirnova, N.S.Hoang, S.Indratno, N.Tran, Cong Van.

Articles for mathematical encyclopedia, Kluwer, Dordrecht, 2001, Supplement volume 3.

1. Ordinary differential equations, property C for, pp.295–296.
2. Local Tomography, pp. 241-242.
3. Partial Differential Equations, Property C for, pp. 298–299.
4. Inverse Scattering, half-axis case, pp. 209–211.
5. Inverse scattering, full line case, pp. 207–208.
6. Obstacle scattering, pp. 284–286.
7. Inverse scattering: multidimensional case, pp. 211–212.
8. Pseudolocal tomography, pp. 310–311.
9. Reproducing kernel, pp. 328–329.
10. Reproducing kernel Hilbert Space, pp. 329–331.

PROFESSIONAL PUBLICATIONS:

- [1.] On the Kotelnikow's theorem. *Electrocommunication*, 10, (1962), 71-72.
- [2.] A necessary and sufficient condition for compactness of embedding. *Vestnik Lenigr. Univ. (Vestnik)* N 1, (1963), 150-151. (*Math. Rev.* 27 #1808).
- [3.] Investigation of the scattering problem in some domains with infinite boundaries I, II, *Vestnik* 7, (1963), 45-66; 19, (1963), 67-76. 27 #483, 23 #374.
- [4.] Spectral properties of the Schrödinger operator in some domains with infinite boundaries, *Doklady Acad of Sci. USSR*, 152, (1963) 282-285. 27 #3930.
- [5.] Absence of the discrete positive spectrum of the Dirichlet Laplacian in some infinite domains. *Vestnik* 13, (1964), 153-156; N 1, (1966), 176. 30 #1295.
- [6.] On the analytic continuation of the solution of the Schrödinger equation in the spectral parameter and the behavior of the solution to the nonstationary problem as $t \rightarrow \infty$, *Uspechi Mat. Nauk*, 19, (1964), 192-194.
- [7.] Statement of the diffraction problem in domains with infinite boundaries. *Proc. 3 all-union wave diffraction symp.*, Nauka, Moscow, (1964), 28-31.
- [8.] Reconstruction of the shape of a domain from the scattering amplitude. *Proc. 3 all-union wave diffraction symp.*, Nauka, Moscow, (1964), 143-144.
- [9.] Conditions under which the scattering matrix is analytic, *Doklady Acad. of Sci. of USSR*, 157, (1964), 1073-1075. 32 #2049.
- [10.] Analytic continuation of the resolvent kernel of the Schrödinger operator in the spectral parameter and limiting amplitude principle in some infinite domains, *Doklady Acad. of Sci. Azerb. SSR*, 21, (1965), 3-7.
- [11.] Spectral properties of the Schrödinger operator in some infinite domains, *Mat. Sbor.* 66, (1965), 321-343. 30 #3297, 34 #7994.
- [12.] On wave diffusion, *Mathematics. Izvestija vuzov*, 2, (1965), 136-138. 32 #1451.
- [13.] On a method of solving the Dirichlet problem in some infinite domains, *Mathematics. Izvestija vuzov*, 5, (1965), 124-127. 32 #7993.
- [14.] On the conditions under which integral operators are nuclear and existence of the S-matrix in the problem of scalar scattering on a potential and surface. *Ukrain. Math. Jour.* 17, (1965), 92-98. 34 #1887.
- [15.] Necessary and sufficient conditions for the validity of the limiting amplitude principle. *Doklady Acad of Sci. USSR*, 163, (1965), 584-586. 33 #7673.
- [16.] Reconstruction of the domain shape from the scattering amplitude, *Radiotech. i Electron.*, 11, (1965), 2068-2070.
- [17.] Reconstruction of a signal from its values on a discrete sequence of time moments, *Radiotech. i Electron.*, 11, (1965), 1957-1959.
- [18.] Behavior of the solution to a nonstationary problem as $t \rightarrow \infty$, *Mathematics, Izvestija vuzov*, 1, (1966), 124-138. 33 #7674.
- [19.] Domain free from the resonances in the three-dimensional scattering problem, *Doklady Acad of Sci. USSR*, 166, (1966), 1319-1322. 34 #3902.
- [20.] Spectrum of Schrödinger operators with spin-orbit potential, *Doklady Acad of Sci. USSR*, 169, (1966), 799-802. 34 #7993.
- [21.] Antenna synthesis with the prescribed pattern. 22 sci. session dedicated the day of radio, Moscow, 1966, section of antennas, 9-13.
- [22.] Statement and numerical solution of inverse ionospheric problem, 22 sci. session dedicated the day of radio, Moscow, 1966, section wave propagation, 3-6.
- [23.] Reconstruction of the potential and domain boundary from the scattering amplitude, 22 sci. session dedicated the day of radio, Moscow, 1966, section wave propagation, 7-10.
- [24.] Estimates of the temperature field for bodies of complicated shape. In collection of papers *Investigation of nonstationary heat and mass transfer*, Minsk, 1966, 64-70.
- [25.] Some theorems on equations with parameters in Banach space, *Doklady Acad. of Sci. Azerb. SSR*, 22, (1966), 3-6. 33 #7963.
- [26.] Some inverse problems of wave propagation. *Proc. of the 4-th all-union wave diffraction symp.*, Moscow, 1967, 7-11.
- [27.] Asymptotic behavior of eigenvalues in the case when the potential depends on parameter, *Math. Zametki*, 1, (1967), 599-608. (with Levitan B. M.). 37 #1817.
- [28.] About estimates of the thermoresistances for bodies of complicated shape, *Eng. Phys. Journ.*, 13, 1967, 914-920.
- [29.] On the limiting amplitude principle, *Diff. eq.*, 4, (1968), 714-720. 37 #1759.
- [30.] Estimates of the thermoresistances, *Proc. of the third all-union conference on heat and mass transfer*, Minsk, 1968, 12-17.
- [31.] Optimal solution of the antenna synthesis problem, *Doklady Acad. of Sci. USSR*, 180, (1968), 1071-1074.
- [32.] On numerical differentiation, *Mathem., Izvestija vuzov*, 11, (1968), 131-135. 40 #5130.
- [33.] On equations of the first kind, *Diff. eq.* 4, (1968), 2056-2060. 40 #817; English transl., 1062-1064.
- [34.] Asymptotic distribution of the Schrödinger operator eigenvalues when the potential tends to infinity and the boundary is infinite, *Doklady Acad. of Sci. USSR*, 183, (1968), 780-783. 40 #1827.

- [35.] Some theorems on analytic continuation of the Schrödinger operator resolvent kernel in the spectral parameter, *Izvestiya Acad. Nauk Armyan. SSR, Mathematics*, 3, (1968), 443-464. 42 # 5563.
- [36.] Random fields filtering in optical instruments in the case of finite entrance pupil size, *Optics and Spectroscopy*, 26, N3, (1969), 421-428.
- [37.] Perturbation by damping of the eigenfrequencies of small oscillations, *Appl. Math. and Mechanics*, 33, (1969), 328-330. 40 #8318.
- [38.] Filtering of nonstationary random fields in optical systems, *Opt. and Spectroscopy*, 26, N5, (1969), 832-836.
- [39.] On antenna synthesis theory, Collection "Antennas" N 5, (1969), 35-46, Moscow, Izd. Svjaz.
- [40.] Iterative solution of the integral equation in potential theory, *Doklady Acad. Sci. USSR*, 186, (1969), 62-65. 41 #9462.
- [41.] Nonlinear antenna synthesis problems, *Doklady Acad. Sci. USSR*, 186, (1969), 1277-1280. 41 #4904.
- [42.] Apodization theory, *Optics and Spectroscopy*, 27, N3, (1969), 508-514.
- [43.] Filtering of nonhomogeneous random fields, *Optics and Spectroscopy*, 27, N6, (1969), 881-887.
- [44.] Green's function study for differential equation of the second order in domains with infinite boundaries, *Diff. eq.* 5, (1969), 1509-1516. 40 #6078; E.t. 1111-1116.
- [45.] Calculation of the scattering amplitude for the wave scattering from small bodies of an arbitrary shape, *Radiofizika*, 12, (1969), 1185-1197. 43 #7131.
- [46.] Optimal solution of the linear antenna synthesis problem, *Radiofizika*, 12, (1969), 1842-1848. 43 #8223.
- [47.] Asymptotic behavior of the eigenvalues and eigenfunction expansions for the Schrödinger operator with increasing potential in the domains with infinite boundary. *Izvestiya Ac. Nauk. Arm. SSR, Mathematics*, 4, (1969), 442-467. 42 #3451.
- [48.] Nonlinear problems of antenna synthesis, *Radiotech. i Electron.*, 15, (1970), 21-28. *Rad. Eng. El. Phys.* 15, (1970), 15-22.
- [49.] Nonlinear problem of plane antenna synthesis, *Radiotech. i Electron.*, 15, (1970), 591-593. E. T. 500-503.
- [50.] Eigenfunction expansion for nonselfadjoint Schrödinger operator, *Doklady Acad. Sci. USSR*, 191, (1970), 50-53. 42 #703.
- [51.] On some integral operators, *Diff. eq.*, 6, (1970), 1439-1451. E.t. 1096-1106. 42 #8339.
- [52.] Exponential decay of solution of the hyperbolic equation, *Diff. eq.*, 6, (1970), 2099-2100. 44 #631. E.t. 1598-1599.
- [53.] Apodization theory II, *Opt. and Spectroscopy*, 29, N2, (1970), 390-394.
- [54.] Increasing of the resolution ability of the optical instruments by means of apodization, *Opt. and Spectroscopy*, 29, N3, (1970), 594-599.
- [55.] On resolution ability of optical systems, *Opt. and Spectroscopy*, 29, N4, (1970), 794-798.
- [56.] Reconstruction of the shape of a reflecting body from the scattering amplitude, *Radiofizika*, 13, (1970), 727-732.
- [57.] Approximate formulas for polarizability tensors and capacitances of bodies of arbitrary shapes and applications, *Doklady Acad. Sci. USSR*, 195, (1970), 1303-1306. MR 55 #1947; E.t.15, (1971), 1108-1111.
- [58.] Filtering and extrapolation of some nonstationary random processes, *Radiotekhnika i Elektronika*, 16, (1971), 80-87. E.t. 68-75.
- [59.] Calculation of the initial field from the scattering amplitude, *Radiotekhnika i Elektronika*, 16, (1971), 554-556.
- [60.] Necessary and sufficient conditions for the validity of the limiting amplitude principle, *Dif. eq.*, 7, (1971), 366-367. 45 #5523; E.t. 284-285.
- [61.] Eigenfunction expansions for exterior boundary problems, *Dif. eq.*, 7, (1971), 737-742. 44 # 2094; E.t. 565-569.
- [62.] Approximate formulas for polarizability tensor and capacitances for bodies of an arbitrary shape. *Radiofizika*, 14, (1971), 613-620. 47 #1386.
- [63.] Iterative methods for solving some heat transfer problems, *Engin. Phys. Jour.*, 20, (1971), 936-937.
- [64.] Electromagnetic wave scattering by small bodies of an arbitrary shape, Proc. of the 5-th all-union sympos. on wave diffraction, *Trudy.math.Inst.Steklova*, Leningrad, 1971, 176-186.
- [65.] On multidimensional integral equation with convolution kernel, *Diff.eq.* 7, (1971), 2234- 2239. 44 #7235; E.t. 1683-1687.
- [66.] Calculation of the magnetization of thin films, *Microelectronics* 6, (1971), 65-68. (with Frolov).
- [67.] Calculation of the scattering amplitude for electromagnetic wave scattering by small bodies of arbitrary shapes II. *Radiofizika*, 14, (1971), 1458- 1460.
- [68.] Electromagnetic wave scattering by small bodies of an arbitrary shape and related topics, Proc. Intern. Sympos. URSI, Moscow, 1971, 536-540.
- [69.] Calculation of thermal fields by means of iterative processes, Proc. 4-th all-union conference on heat and mass transfer. Minsk, 1972, 133-137.
- [70.] Calculation of the capacitance of a parallelepiped, *Electricity*, 5, (1972), 90-91 (with M.Golubkova, V.Usoskin).
- [71.] Simplified optimal differentiators, *Radiotech.i Electron.*17, (1972), 1325-1328; E.t.1034-1037.
- [72.] On exterior diffraction problems, *Radiotech.i Electron.* 7, (1972), 1362-1365. 51 #4864; e.t. 1064-1067.
- [73.] On the skin-effect theory. *J. of Techn. Phys.*, 42, (1972), 1316-1317.

- [74.] Calculation of the quasistationary states in quantum mechanics, Doklady Acad. Sci. USSR, 204, (1972), 1071-1074. 56 #14326.
- [75.] Calculation of the capacitance of a conductor placed in anisotropic inhomogeneous dielectric, Radiofizika, 15, (1972), 1268-1270. 47 #2284.
- [76.] Remark on integral equations theory, Diff. Uravneniya, 8, (1972), 1517-1520. 47 #2284; E.t. 1177-1180.
- [77.] On some class of integral equations, Diff. Uravneniya, 9, (1973), 931-941. 49 #5749; E.t. 706-713.
- [78.] Iterative process to solve the third boundary problem, Diff. Uravneniya, 9, (1973), 2075-2079. 48 #6861.
- [79.] Optimal harmonic synthesis of generalized Fourier series and integrals with randomly perturbed coefficients, Radiotekhnika, 28, (1973), 44-49.
- [80.] Eigenfunction expansion corresponding the discrete spectrum, Radiotekh. i Electron., 18, (1973), 496-501. 50 #1641 E.t. 364-369.
- [81.] Discrimination of the random fields in noises, Problems of information transmission, 9, N3, (1973), 22-35. 48 #13439.
- [82.] Light scattering matrix for small particles of an arbitrary shape, Opt. and spectroscopy, 37, N1, (1974), 125-129.
- [83.] Scalar scattering by the set of small bodies of an arbitrary shape, Radiofizika, 17, (1974), 1062-1068.
- [84.] New methods of calculation of the static and quasistatic electromagnetic waves, Proc. of the Fifth Intern. sympos. "Radioelectronics- 74" Sofia, 3, (1974), 1-8 (report 12).
- [85.] Influence of the shape of cosmic particles on the scattering amplitude, Proc. all-union sympos. Interaction of cosmic dust with the atmosphere. Ashkhabad, 1974, 11-12.
- [86.] Approximate solution of some integral equations of the first kind, Diff. eq. 11, (1975), 582-586. 51 #13613; E.t. 440-443.
- [87.] Estimates of some functionals in quasistatic electrodynamics, Ukrain. Phys. Jour., 5, (1975), 534-543. 56 #14165.
- [88.] Filtering and signal detection for random fields and vectorial processes, Proc. internat. confer. Prague, Sept. 1975, 45-59.
- [89.] Existence uniqueness and stability of the periodic regimes in some nonlinear networks, Proc. of the third intern. sympos. on network theory, Split, Yugoslavia, Sept. 1975, 623-628.
- [90.] Diffraction losses in open resonators. Opt. and spectroscopy, 40, N1, (1976), 160-163.
- [91.] Boundary value problem with discontinuous boundary conditions, Diff. eq. 13, (1976), 931- 933. 54 #10830.
- [92.] Investigation of a class of integral equations, Doklady Acad. Sci. USSR, 230, (1976), 283-286. 54 #3341, 55 #1016.
- [93.] Iterative process for calculation of the periodic and almost periodic oscillations in some nonlinear systems, Radiotekh. i Electron., 21, (1976), 2429-2433.
- [94.] Optimization of the resolution ability, Opt. and Spectroscopy, 42, N3, (1977), 540-545 (with Rodionov).
- [95.] Wave scattering by small particles, Opt. and Spectroscopy, 43, N3, (1977), 523-531.
- [96.] On simultaneous approximation of a function and its derivative by interpolation polynomials, Bull. Lond. Math. Soc. 9, (1977), 283-288.
- [97.] New method of calculation of the stationary regimes in some nonlinear networks, Proc. of Intern. Conf. on computer-aided design of electron. and microwave systems. Hull, July, 1977.
- [98.] A new class of nonstationary processes and fields and its applications, Proc. 10 all-union sympos. "Methods of representation and analysis of random processes and fields" Leningrad, 3, 1978, 40-43.
- [99.] Existence of the periodic solutions to some nonlinear problems, Diff.Eq., 13, (1977), 1701-1708; E.t. 1186-1191, 57 #10530.
- [100.] On eigenvalues of some integral equations, Diff.Eq., 15, (1978), 932-934; 58 #1528. E.t. 665-667.
- [101.] On stability of control systems, Diff.Eq., 15, (1978), 1670-1677. E.t. 1188-1193.
- [102.] Necessary and sufficient conditions for the validity of the limiting amplitude principle, Mathematics, Izv. vuzov, 5, (1978), 96-102.
- [103.] Perturbations, preserving asymptotics of spectrum, Atti Ac. Naz. Lincei, ser. 8, vol. 64, fasc 1, Jan. (1978), p.30-31.
- [104.] Investigation of a class of systems of integral equations, Proc. Intern. Congr. on appl. math., Weimar, DDR, 1978, 345-351.
- [105.] Existence, uniqueness and stability of solutions to some nonlinear problems, Proc. Intern. Congr. on appl. math., Weimar, DDR, 1978, 352-356.
- [106.] Existence in the large of solution of systems of nonlinear differential equations, Bull. Acad. Pol. Sci., 9-10, (1978), pp. 795-797.
- [107.] Investigation of some classes of integral equations and their application, In collection "Abel inversion and its generalizations", edited by N. Preobrazhensky, Siberian Dep. of Acad. Sci. USSR, Novosibirsk 1978, pp. 120-179.
- [108.] A uniqueness theorem for the Dirichlet problem, Sibir. Math. J. N6, (1978), 1421-1423.
- [109.] Approximation by entire functions, Mathematics, Izv. vuzov, 10, (1978), 72-76.
- [110.] On an integral equation, Comptes Rendus Acad. Sci. Bulg. 32, N6, (1979), 715-717.

- [111.] Iterative process for calculating periodic and almost periodic oscillations in some nonlinear systems, Radiotekh. i Electronica, 24, N1, (1979), 190-191.
- [112.] On uniqueness of harmonic coordinate systems in general relativity, Uspehi Math. Nauk. 34, N1, (1979), 239-240
(with Mishnaevskii P.).
- [113.] On a class of integral equations, Math. Nachr., 92, (1979), 21-24.
- [114.] On nonlinear equations with unbounded operators, Math. Nachr., 92, (1979), 13-20.
- [115.] Linear filtering of some vectorial nonstationary random processes, Math. Nachr., 91, (1979), 269-280.
- [116.] On spectrum of operator Schrödinger equation, Rev.Roum.Math. Pure et Appl.25, (1980), 789-795.
- [117.] Electromagnetic wave scattering by small bodies of arbitrary shapes, in the book: "Acoustic, electromagnetic and elastic scattering-Focus on T-matrix approach" Pergamon Press, N. Y. 1980. 537-546. (ed. V. Varadan).
- [118.] **Theory and applications of some new classes of integral equations, Springer-Verlag, New York, 1980.**
- [119.] Investigation of a class of systems of integral equations, J.Math.Anal.Appl., 76,(1980), 303-308.
- [120.] Perturbation preserving asymptotics of spectrum of linear operators, J.Math.Anal.Appl., 76,(1980), 10-17.
- [121.] Uniqueness theorem of use in general relativity, J.Math.Anal.Appl., 75,(1980), 58-65.
(with Mishnaevskii P.)
- [122.] On the quasistatic boundary value problem of electrodynamics, J.Math.Anal.Appl., 75, (1980), 300-305.
(with C.L.Dolph)
- [123.] Two sided estimates of the scattering amplitude at low energies, J.Math.Phys., 21, (1980), 308-310.
- [124.] Analytical results in random fields filtering theory, Zeitschr. Angew. Math. Mech., 60, (1980), T 361-T 363.
- [125.] Nonselfadjoint operators in diffraction and scattering, Math.Methods in appl.sci., 2, (1980), 327-346.
- [126.] A new proof of absence of positive discrete spectrum of the Schrödinger operator, J. Math. Phys. 21, (1980), 2395-2397.
(with B. A. Taylor)
- [127.] Eigenfunction expansion for nonselfadjoint operators, Rev.Roum.Math.Pure Appl., 25, (1980), 797-809.
- [128.] Theoretical and practical aspects of singularity and eigenmode expansion methods, IEEE A-P, 28, N6, (1980), 897-901.
- [129.] Stationary regimes in passive nonlinear networks, in "Nonlinear Electromagnetics", Ed. P.L.E. Uslenghi, Acad. Press, N. Y., 1980, pp. 263-302.
- [130.] A variational principle for resonances. J. Math. Phys. 21, (1980), 2052-53.
- [131.] Existence uniqueness and stability of solutions to some nonlinear problems. Appl. Analysis, 11, (1981), 223-232.
- [132.] Exterior boundary value problems as limits of interface problems, J. Math. Anal. Appl. 84, (1981), 256-263.
- [133.] Stable solutions of some ill-posed problems, Math. Meth. in the appl. Sci. 3, (1981), 336-363.
- [134.] Variational principles for spectrum of compact nonselfadjoint operators, J. Math. Anal. Appl. 80, (1981), 291-293.
- [135.] On the basis property for the root vectors of some nonselfadjoint operators, Jour. Math. Anal. Appl. 80, (1981), 57-66.
- [136.] On some properties of solutions of Helmholtz equation, J. Math. Phys., 22, (1981), 275-276.
- [137.] Spectral properties of some nonselfadjoint operators, Bull. Am.Math.Soc., 5, N3, (1981), 313-315.
- [138.] Existence, uniqueness, stability and calculation of the stationary regimes in some nonlinear systems, Proc. of the AMS Special session in Math. Physics, Boulder, CO, March 1980. Plenum Publish. Co., 1981, 337-342.
- [139.] Nonselfadjoint operators in diffraction and scattering, Proc. of the AMS Special session in Math. Physics, Boulder, CO, March 1980. Plenum Publish. Co., 1981, 179-182.
(with C. L. Dolph)
- [140.] Stability in the large and calculation of the stationary regimes in a feedback nonlinear system. Proc. IEEE Intern. Sympos. on circuits and systems, (1981), 955-956.
(with G.S.Ramm)
- [141.] Spectral properties of some nonselfadjoint operators and some applications, in "Spectral theory of differential operators", Math. Studies, North Holland, Amsterdam, 1981, ed. I. Knowles and R. Lewis, 349-354.
- [142.] On the singularity and eigenmode expansion methods, Electromagnetics, 1, N4, (1981), 385-394.
- [143.] Electromagnetic wave scattering by small bodies, Nonlinear Vibr.Probl., 20, (1981), 109-120.
- [144.] **Iterative methods for calculating static fields and wave scattering by small bodies, Springer Verlag, New York, 1982.**
- [145.] Mathematical foundations of the singularity and eigenmode expansion methods. J. Math. Anal. Appl., 86, (1982), 562-591.
- [146.] Asymptotic of resonant states, J.Math.Anal.Appl., 87, (1982), 323-331.
(with P.A.Mishnaevskii)
- [147.] Perturbations preserving asymptotic of spectrum with a remainder. Proc. Amer. Math.Soc., 85, N2, (1982), 209-212.

- [148.] Variational principles for resonances II, J. Math. Phys., 23, N6, (1982), 1112-1114.
- [149.] Perturbation of resonances. J. Math. Anal. Appl. 88, (1982), 1-7.
- [150.] Convergence of the T-matrix approach to scattering theory, J. Math. Phys. 23, N6, (1982), 1123-1125.
- [151.] Topics in scattering and spectral theory, Notices AMS, 29, (1982), 327-329.
- [152.] Justification of the T-matrix approach, Proc. of the internat. IEEE sympos. on Antennas and Propagation, Albuquerque 1982, vol. 1, p. 13-14, 1982.
- [153.] Convergence of the T-matrix approach in the potential scattering, J. Math. Phys. 23, (1982), 2408-2409.
- [154.] Investigation of a class of nonlinear integral equations and calculation of passive nonlinear networks, Nonlin. Vibr., 21, (1983), 19-37.
- [155.] Variational principles for eigenvalues of compact nonselfadjoint operators II, J. Math. Anal. Appl., 91, (1983), 30-38.
- [156.] Eigenfunction expansions for some nonselfadjoint operators and the transport equation, J. Math. Anal. Appl., 92, (1983), 564-580.
- [157.] Convergence of the T-matrix approach in scattering theory II, J. Math. Phys., 24, N 11, (1983), 2619- 2631. (with G. Kristensson and S. Ström)
- [158.] Convergence of the T-matrix scheme, Proc. of the IEEE intern. symposium on antennas and propagation, May 1983, Houston.
- [159.] Inverse scattering for geophysical problems, Phys. Letters, 99A, (1983), 258-260.
- [160.] An inversion formula in scattering theory. Phys. Lett., 99A, (1983), 201-204.
- [161.] On a property of the set of radiation patterns, J. Math. Anal. Appl., 98, (1984), 92-98.
- [162.] A uniqueness theorem in scattering theory. Phys. Rev. Lett., 52, N1, (1984), 13.
- [163.] Scattering by a penetrable body, J. Math. Phys., 25, N3, (1984), 469-471.
- [164.] Representations of solutions to Helmholtz's equation, J. Math. Phys., 25, N4, (1984), 807-809.
- [165.] Existence of infinitely many purely imaginary resonances in the problem of potential scattering, Phys. Lett., 101A, N4, (1984), 187-188.
- [166.] A uniqueness theorem in scattering theory, Phys. Rev., 102A, N5-6, (1984), 218-219.
- [167.] Description of the degree of nonuniqueness in inverse source problem, J. Math. Phys., 25, N6, (1984), 1791-1793.
- [168.] Estimates of the derivatives of random functions, J. Math. Anal. Appl., 102, (1984), 244-250.
- [169.] Remarks about inverse diffraction problem, J. Math. Phys., 25, N11, (1984), 2672-2674.
- [170.] Inverse scattering for geophysical problems II, Inversion of acoustical data, J. Math. Phys., 25, N11, (1984), 3231-3234. (with A. Weglein)
- [171.] Analytic theory of random fields estimation and filtering, Proc. of the intern sympos. on Mathematics in systems theory (Beer Sheva, 1983), Lecture notes in control and inform. sci. N58, Springer Verlag, 1984, 764-773.
- [172.] On inverse diffraction problem, J. Math. Anal. Appl., 103, (1984), 139-147.
- [173.] Inverse diffraction problem, Inverse methods in electromagnetic imaging, Reidel, Dordrecht, 1985, pp. 231-249. (ed. W. Boerner)
- [174.] Limit of the spectra of the interior Neumann problems when a solid domain shrinks to a plane one, J. Math. Anal. Appl., 108, (1985), 107-112.
- [175.] Extraction of resonances from transient fields, IEEE AP Trans., 33, (1985), 223-226.
- [176.] Inverse scattering for geophysical problems III, On the velocity inversion problems of acoustics, Proc. Roy. Soc. Lond., A 399, (1985), 153-166. (with P. Martin)
- [177.] Scattering amplitude and algorithm for solving the inverse scattering problem for a class of non-convex obstacles, Phys. Lett. A, 108A, (1985), 238-240. (with H. Alber)
- [178.] Calculating resonances (natural frequencies) and extracting them from transient fields, J. Math. Phys., 26, N5, (1985) 1012-1020.
- [179.] Inverse scattering for geophysical problems, Inverse Problems, 1, N2, (1985) 133-172.
- [180.] Numerical solution of integral equations in a space of distributions, J. Math. Anal. Appl. 110, (1985), 384-390.
- [181.] Estimates of the derivatives of random functions II, J. Math. Anal. Appl. 110, (1985), 429-435. (with T. Miller)
- [182.] Wave scattering by small bodies, Reports Math. Phys. , 21, (1985), 69-77.
- [183.] On a uniqueness theorem in inverse scattering by an infinite surface with a finite inhomogeneity, Opt. Comm., 59, (1985), 8-10. (with M. Fiddy).
- [184.] On the limit amplitude principle for a layer, Jour. für die reine und angew. Math., 360, (1985), 19-46. (with P. Werner)
- [185.] Offset measurements on a sphere at a fixed frequency do not determine the inhomogeneity uniquely, Inverse problems, 1, (1985), L35-L37.

- [186.] Adjusting migration data for incompleteness: notes on Doeve's method, XX General conference, International Union for the scientific study of population, Florence, Italy, June 1985, pp. 1-44. Population index 52, N4, (1986). (with W. Doeve).
- [187.] Inversion of the back scattering data and a problem of integral geometry. Phys. Lett. 113A, (1985), 172-176.
- [188.] Inverse scattering in an absorptive medium. Inverse problems, 2, (1986), L5-L7.
- [189.] Singularities of the inverses of Fredholm operators. Proc. of Roy. Soc. Edinburgh, 102A, (1986), 117-121.
- [190.] **Scattering by obstacles, D.Reidel, Dordrecht, 1986, pp.1-442.**
- [191.] Inverse scattering for geophysical problems IV. Inversion of the induction logging measurements. Geophysical prospecting, 34, N3, (1986), 293-301.
- [192.] Behavior of solutions to exterior boundary value problems at low frequencies, J. Math. Anal. Appl., 117, (1986), 561-569.
- [193.] Scattering amplitude and algorithm for solving the inverse scattering problem for a class of non-convex obstacles, J. Math. Anal. Appl., 117, (1986), 570-597. (with H.D. Alber)
- [194.] A geometrical inverse problem. Inverse problems, 2, (1986), L19-21.
- [195.] Nonuniqueness of the solution to an inverse geophysical problem, Inverse problems, 2, (1986), L23-25.
- [196.] On completeness of the products of harmonic functions, Proc. A.M.S., 99, (1986), 253-256.
- [197.] Inverse scattering: asymptotic analysis, Inverse problems, 2, (1986), L43-46. (with H.D. Alber)
- [198.] Inversion of the Laplace transform from the real axis, Inverse problems, 2, (1986), L55-59.
- [199.] Inverse scattering for geophysical problems when the background is variable, J. Math. Phys., 27, (1986), 2687-2689.
- [200.] An inverse problem for the Helmholtz equation in a semi-infinite medium, Inverse problems, 3, (1987), L19-22.
- [201.] A method for solving inverse diffraction problems, Inverse problems, 3, (1987), L23-25.
- [202.] Characterization of the low-frequency scattering data in the inverse problems of geophysics, Inverse problems, 3, (1987), L33-35.
- [203.] Sufficient conditions for zero not to be an eigenvalue of the Schrödinger operator, J. Math Phys., 28, (1987), 1341-1343.
- [204.] Optimal estimation from limited noisy data, J. Math. Anal. Appl., 125 (1987), 258-266.
- [205.] Signal estimation from incomplete data, J. Math. Anal. Appl., 125 (1987), 267-271.
- [206.] Analytic and numerical results in random fields estimation theory, Math. Reports of the Acad. of Sci., Canada, 9, (1987), 69-74.
- [207.] Recovery of the potential from I-function, Math. Reports of the Acad. of Sci., Canada, 9, (1987), 177-182.
- [208.] Example of a potential in one-dimensional scattering problem for which there are infinitely many purely imaginary resonances, Phys. Lett. A. 124, (1987), 313-319. (with B.A. Taylor)
- [209.] Characterization of the scattering data in multidimensional inverse scattering problem, in the book: "Inverse Problems: An Interdisciplinary Study." Acad. Press, NY, 1987, 153-167. (Ed. P. Sabatier).
- [210.] A characterization of the scattering data in 3D inverse scattering problem, Inverse problems, 3, (1987), L49-52. (with O. Weaver)
- [211.] Necessary and sufficient conditions for a function to be the scattering amplitude corresponding to a reflecting obstacle, Inverse problems, 3, (1987), L53-57.
- [212.] An inverse problem for Helmholtz's equation II, Inverse Problems, 3, (1987), L59-61.
- [213.] Necessary and sufficient conditions on the scattering data for the potential to be in L^2 , Inverse Problems, 3, (1987), L71-L76
- [214.] Completeness of the products of solutions to PDE and uniqueness theorems in inverse scattering, Inverse problems, 3, (1987), L77-L82
- [215.] Inverse problem for Helmholtz's equation, Intern J. of Math and Math Sci., 10, (1987), 825-27
- [216.] Equisummability for linear operators in Banach spaces, Proc. of Roy. Soc. Edinburgh, 106A, (1987), 315-325. (with M.Kon, L. Raphael)
- [217.] A uniqueness theorem for two-parameter inversion, Inverse Probl., 4, (1988), L7-10.
- [218.] A uniqueness theorem for a boundary inverse problem, Inverse Probl., 4, (1988), L1-5.
- [219.] Inverse scattering on half-line, J. Math. Anal. App. 133, 2, (1988), 543-572.
- [220.] Multidimensional inverse problems and completeness of the products of solutions to PDE, J. Math. Anal. Appl. 134, 1, (1988), 211-253; 139, (1989) 302.
- [221.] An inverse problem for biharmonic equation, Int. J. of Math. and Math. Sci., 11, (1988), 413-415.
- [222.] Characterization of the scattering data in three dimensional inverse scattering problems. Proc. of the fifth intern. seminar on model optimization in explorational geophysics, editor A. Vogel, F. Vieweg & Sohn, Braunschweig, 1988, pp. 39-45.
- [223.] A uniqueness theorem for an inverse problem, Appl. Math. Lett 1, (1988), 185-187.
- [224.] Estimates for Green's functions, Proc. Amer. Math. Soc., 103, N3, (1988), 875- 881. (with L. Li)

- [225.] Inversion of the acoustic well to well data, Appl Math. Letters, 1, (1988), 127-131, (with J. Harris).
- [226.] A criterion for completeness of the set of scattering amplitudes, Phys. LettA. 129, (1988), 191-194.
- [227.] Conditions for zero not to be an eigenvalue of the Schrödinger operator, J. Math. Phys. 29, (1988), 1431-1432.
- [228.] Recovery of the potential from fixed energy scattering data, Inverse Problems, 4, (1988), 877-886; 5, (1989) 255.
- [229.] A simple proof of uniqueness theorem in impedance tomography, Appl. Math. Lett., 1, N3, (1988), 287-290.
- [230.] Numerical method for solving 3D inverse scattering problems, Appl. Math. Lett., 1, N4, (1988), 381-384.
- [231.] Application of operator approximation to Fourier analysis, in the book “Constructive theory of functions“, Proc. of the intern. conference on constructive theory of functions, Varna, May 24-31, (1987). Publishing House of Bulgar. Acad. of Sciences, Sofia, 1988, pp. 276-282
(with M. Kon and L. Raphael).
- [232.] Error estimate for a quadrature formula for H^2 functions, Proc. of the 1987 Oberwolfach conference on numerical integration in: Numerical Integration III. Birkhauser, Basel, 1988, p. 199-201. (ed. H. Brass and G. Hammerlin).
- [233.] Uniqueness theorems for multidimensional inverse problems with unbounded coefficients, J. Math. Anal. Appl. 136, (1988), 568-574.
- [234.] Numerical method for solving 3D inverse problems of geophysics, J. Math. Anal. Appl., 136, (1988), 352-356.
- [235.] Multidimensional inverse problems: Uniqueness theorems, Appl. Math. Lett., 1, N4, (1988), 377-380.
- [236.] Multidimensional inverse scattering problems and completeness of the products of solutions to homogeneous PDE, Zeitschr. f. angew. Math. u. Mech., 69, (1989) N4, T13-T22.
- [237.] Numerical method for solving 3D inverse problems with complete and incomplete data, In the book: “Wave Phenomena”, Springer-Verlag, New York 1989, (eds. L. Lam and H. Morris), 34- 43.
- [238.] Numerical recovery of the 3D potential from fixed energy incomplete scattering data, Appl. Math.Lett., 2, N1, (1989), 101-104.
- [239.] An inverse problem for Helmholtz’s equation III, Appl.Math.Lett. 2, N1, (1989)105-108.
- [240.] Numerical recovery of the layered medium, J.of Comput.and Appl.Math. 25, N3, (1989), 267-276.
(with P. Li)
- [241.] Necessary and sufficient condition for a scattering amplitude to correspond to a spherically symmetric scatterer, Appl.Math.Let. 2, (1989), 263-265.
- [242.] An inverse problem for Maxwell’s equations, Phys.Let. A 138(1989), 459-462.
- [243.] Electromagnetic inverse problem with surface measurements at low frequencies, Inverse Probl., 5, (1989), 1107-1116.
(with E. Somersalo)
- [243a] Electromagnetic inverse problems at low frequencies, Inverse methods in action (Montpellier, 1989), pp. 201206, Inverse Probl. Theoret. Imaging, Springer, Berlin, 1990.
(with E. Somersalo)
- [244.] Necessary and sufficient condition on fixed energy scattering data for the potential to be spherically symmetric, Inverse Probl.5, (1989), L45-47.
(with O. Weaver)
- [245.] Property C and uniqueness theorems for multidimensional inverse spectral problem, Appl.Math.Lett., 3, (1990), 57-60.
- [246.] **Random fields estimation theory, Longman Scientific and Wiley, New York, 1990.**
- [247.] Stability of the numerical method for solving the 3D inverse scattering problem with fixed energy data, Inverse problems 6, (1990), L7-12.
- [248.] Algorithmically verifiable characterization of the class of scattering amplitudes for small potentials, Appl. Math. Lett, 3, (1990), 61-65.
- [249.] Is the Born approximation good for solving the inverse problem when the potential is small? J. Math. Anal. Appl., 147, (1990), 480-485.
- [250.] Random fields estimation theory, Math. and Comput. Modelling 13, (1990), 87-100.
- [251.] Dissipative Maxwell’s equations at low frequencies, Math. Meth. in the Appl. Sci. 13, (1990), 305-322.
(with O. Weaver, N. Weck, and K. Witsch)
- [252.] Completeness of the products of solutions of PDE and inverse problems, Inverse Probl.6, (1990), 643-664.
- [253.] Calculating singular integrals as an ill-posed problem, Numer. Math., 57, (1990)139-145.
(with van der Sluis)
- [254.] Uniqueness result for inverse problem of geophysics I,Inverse Probl.6, (1990), 635-642.
- [255.] Uniqueness result for inverse problem of geophysics II, Appl. Math. Lett., 3, (1990), 103-105.
(with G. Xie)
- [256.] Uniqueness theorems for geophysical problems with incomplete surface data. Appl. Math. Lett.3, (1990), N4, 41-44.
- [257.] An inverse problem for the wave equation, Math. Zeitschr., 206, (1991) 119-130. (with J. Sjostrand).

- [258.] Numerical solution of some inverse problems of geophysics, *Computers and Mathematics with Applications*, 21, (1991), 75-80
(with Q. Zou)
- [259.] Asymptotics of the solution to a singularly perturbed integral equation (with E.I.Shifrin), *Appl.Math.Lett.*, 4, (1991), 67-70.
- [260.] Symmetry properties for scattering amplitudes and applications to inverse problems, *J. Math. Anal. Appl.*, 156, (1991), 333-340.
- [261.] Property C and an inverse problem for a hyperbolic equation, *J. Math. Anal. Appl.*, 156, (1991), 209-219.
(with Rakesh)
- [262.] Necessary and sufficient condition for a PDE to have property C, *J. Math. Anal. Appl.* 156, (1991), 505-509.
- [263.] A singular perturbation result and its application to mathematical ecology, *Proc. AMS*, 111, (1991), 1043-1050.
(with L. Li)
- [264.] Stability of the numerical method for solving 3D inverse scattering problem with fixed energy data, *J.f.die reine und angew. Math*, 414, (1991), 1-21.
- [265.] Numerical solution of some integral equations in distributions, *Comput. & Math with Appl.* 21, (1991), 1-11.
(with Peiqing Li)
- [266.] Finding conductivity from boundary measurements, *Comp.& Math.with Appl.*, 21, N8, (1991), 85-91
- [267.] Exact inversion of fixed-energy data, in the book *Mathematical and Numerical Aspects of Wave Propagation Phenomena*, SIAM, Philadelphia, (1991), pp.481-486
- [268.] Justification of Fabrikant's method for solving mixed problems of potential theory, *Comp.and Math. with Appl.*, 22, N6, (1991), 97-104.
(with V.Fabrikant).
- [269.] Property C and inverse problems, *ICM-90 Satellite Conference Proceedings, Inverse Problems in Engineering Sciences*, Proc. of a conference held in Osaka, Japan, Aug. 1990, Springer Verlag, New York, 1991, pp. 139-144.
- [270.] Can a constant be a scattering amplitude? *Phys.Lett.*, 154A, (1991), 35-37
- [271.] Inversion of limited-angle tomographic data, *Comp. and Math. with Applic.*, 22, 4/5, (1991), 101-112.
- [272.] On 3D inverse scattering, *Comp. and Math. with Appl.*, 22, 4/5, (1991), 1-26 (with O.Weaver)
- [273.] On a problem of integral geometry, *Comp. and Math. with Appl.*, 22, 4/5, (1991), 113-118.
- [274.] Solution of some integral equations arising in integral geometry, *Appl.Math.Lett.*, 4, (1991), 177-181
- [275.] An approximation problem, *Appl.Math.Lett.*, 4, N5, (1991), 75-77.
- [276.] Uniqueness theorem for a Goursat-Darboux type problem, *Soviet Math. Doklady*, 321, 1, (1991), 19-22.
(with P. Mishnaevskii)
- [277.] Inversion of the Radon transform with incomplete data, *Math.Methods in the Appl.Sci.*, 15, N3, (1992), 159-166.
- [278.] **Multidimensional inverse scattering problems, Longman/Wiley, New York, 1992, pp.1-385.**
- [279.] Stability of the solution to inverse scattering problem with exact data, *Appl.Math.Lett.*, 5, 1, (1992), 91-94
- [280.] Inversion of incomplete Radon transform (with A.Katsevich) *Appl.Math.Lett.*, 5, N2, (1992), 41-46.
- [281.] Inversion of limited-angle tomographic data II, *Appl.Math.Lett.*, 5, N2, (1992), 47-49.
- [282.] Inverse scattering problem with fixed-energy data, *Appl.Math.Lett.*, 5, N4, (1992), 63-67.
- [283.] A multidimensional Ambartsumian's theorem, *Appl. Math. Lett.*, 5, N5, (1992), 87-88.
(with P.Stefanov)
- [284.] Uniqueness of the solution to a Goursat problem, *Appl.Math.Lett.*, 5, N6, (1992), 11-13.
(with P. Mishnaevskii)
- [285.] Stability estimates in inverse scattering, *Acta Appl. Math.*, 28, N1, (1992), 1-42.
- [286.] FBP method for inversion of incomplete tomographic data, *Appl.Math.Lett.*, 5, N3, (1992), 77-80.
(with A.Katsevich)
- [287.] Numerical solution of 3D inverse scattering problems with noisy discrete fixed-energy data, *Appl. Math. Lett.*, 5, N6, (1992), 15-18.
- [288.] Inversion of incomplete cone-beam data, *Appl.Math.Lett.*, 5, N4, (1992), 91-94.
(with A.Zaslavsky)
- [289.] Stability of the inversion of 3D fixed-frequency data, *J.Math.Anal.Appl.*, 169, N2(1992), 329-349.
- [290.] Stability of the solution to 3D fixed-energy inverse scattering problem, *J.Math.Anal.Appl.*, 170, N1 (1992), 1-15.
- [291.] Singularities of the Radon transform, *Bull.Am.Math.Soc.*, 25, N1, (1993), 109-115.
(with A.Zaslavsky)
- [292.] Asymptotics of the solutions to singularly perturbed integral equations II., *J.Math.Anal.Appl.*, 178, N2, (1993), 322-343.
(with E.Shifrin).
- [293.] Multidimensional algorithm for finding discontinuities of functions from noisy data. *Math. Comp. Modelling*, 18, N1, (1993), 89-108.
(with A.Katsevich).

- [294.] A criterion for property C, *J.Math.Anal.Appl.*, 177, N2, (1993), 491-495.
(with D.Markushevich)
- [295.] Consistency of rank tests against some general alternatives, *Math. & Comput. Modelling*, 18, N12, (1993), 49-56.
(with A.Katsevich)
- [296.] Uniqueness and inversion of cone-beam data, *Appl.Math.Lett.*, 6, N1 (1993), 35-38.
- [297.] Property C with constraints and inverse spectral problems with incomplete data, *J.Math.Anal.Appl.*, 180, N1, (1993), 239-244
- [298.] An inverse problem for the heat equation, *Proc.Roy.Soc. Edinburgh*, 123, N6, (1993), 973-976.
- [299.] Reconstructing singularities of a function given its Radon transform, *Math. Comp.Modelling*, 18, N1, (1993), 109-138,
(with A.Zaslavsky).
- [300.] Stable calculation of the Legendre transform of noisy data, *J.Math.Anal.Appl.*178, N2, (1993), 592-602
(with A.Steinberg and A.Zaslavsky).
- [301.] Approximation by the scattering solutions and applications to inverse scattering, *Math.Comp.Modelling*, 18, N1, (1993), 47-56.
- [302.] Fixed-energy inverse scattering for non-compactly supported potentials, *Math.Comp.Modelling*, 18, N1, (1993), 57-64.
(with P.Stefanov).
- [303.] Asymptotics of the Fourier transform of piecewise-smooth functions, *Comptes Rendus Acad.Sci.Paris*, 316, ser.1, (1993), 541-545. (with A.Zaslavsky).
- [304.] Property C with constraints and inverse problems, *J.of Inverse and Ill-Posed Problems*, 1, N3 (1993), 227-230.
- [305.] Scattering amplitude is not a finite-rank kernel, *J. of Inverse and Ill-Posed Problems*, 1, N4, (1993), 349-354.
(with P.Stefanov)
- [306.] Inverse scattering at fixed energy for exponentially decreasing potentials, *Proc. of the Lapland conference on inverse problems* (with P.Stefanov). *Lecture notes in Phys*, N422, Springer- Verlag, 1993, 189-192.
- [307.] Algorithm for solving 3D inverse scattering problems with noisy discrete fixed-energy data, *Proceedings of ICES-92 conference on inverse problems*. In the book: *Inverse Problems*, Atlanta Technology Publications, Atlanta, Georgia, (1993), pp.70-74.
- [308.] Property C and applications. *Math. Comp. Modelling*, 18, N1, (1993), 1-4.
- [309.] Scattering amplitude is not a finite rank kernel in the basis of spherical harmonics, *Appl.Math.Lett.*, 6, N5, (1993), 89-92.
- [310.] New method for proving uniqueness theorems for obstacle inverse scattering problems, *Appl.Math.Lett.*, 6, N6, (1993), 19-22.
- [311.] Scattering amplitude as a function of the obstacle, *Appl.Math.Lett.*, 6, N5, (1993), 85-87.
- [312.] Inverse geophysical problems for some non-compactly supported inhomogeneities, *Appl. Math. Lett.*, 6, N6, (1993), 15-18.
(with D.Ghosh Roy)
- [313.] **Multidimensional inverse scattering problems, Mir Publishers, Moscow, 1994, pp.1-496. (Russian translation of the expanded monograph 278).**
- [314.] A numerical approach to 3D inverse scattering problems, *Appl.Math.Lett.*7, N2, (1994), 57-61
- [315.] X-ray transform, the Legendre transform and envelopes, *J.Math.Anal.Appl.*, 183, N3, (1994), 528- 546.
(with A.Zaslavsky)
- [316.] Nonparametric estimation of the singularities of a signal from noisy measurements, *Proc. AMS*, 120, N8, (1994), 1121-1134.
(with A.Katsevich)
- [317.] Numerical method for solving inverse scattering problems, *Doklady of Russian Acad. of Sci.*, 337, N1, (1994), 20-22
- [318.] Low frequency inversion of surface data in a finite-depth ocean, *Appl.Math.Lett.*, 7, N1, (1994), 11- 14
(with L.Couchman & D.Ghosh Roy).
- [319.] Multidimensional inverse scattering: solved and unsolved problems, *Proc.Intern.Confer. on Dynamical Syst.and Applic.*, Vol.1, Atlanta, (1994), pp.287- 296.(Eds. G.Ladde and M.Sambandham)
- [320.] Inversion of fixed-frequency surface data for layered medium, *J. of Inverse and Ill-Posed Problems*, 2, N3, (1994), 263-268
- [321.] Stability estimate in scattering theory and its application to mesoscopic systems and quantum chaos, *Physics A*, 27, N18, (1994), 6157-6166.
(with G.Berman)
- [322.] A method for finding discontinuities of functions from tomographic data, *Proc. AMS-SIAM summer seminar on the mathematics of tomography, impedance imaging and integral geometry, Lectures in Appl. Math.*, Vol. 30 (1994), pp.115-123. (with A.I.Katsevich)

- [323.] Uniqueness theorems for Goursat-type problems, *J. Diff. Eq.*, 112, N1, (1994), 250-255.
(with P. Mishnaevskii)
- [324.] Modeling of the ejection process, *Math. and Comp. Modelling*, 20, N1, (1994), 95-102.
(with I. Kaleps)
- [325.] Stability of the solution to inverse obstacle scattering problem, *J. Inverse and Ill-Posed Problems*, 2, N3, (1994), 269-275.
- [326.] Optimal local tomography formulas, *PanAmer. Math. Journ.*, 4, N4, (1994), 125-127.
- [327.] Stability of the solution to 3D inverse scattering problems with fixed-energy data. Proc. ASME Nov.6-11, 1994, meeting. Inverse problems in mechanics, AMD-Vol 186, pp.99-102.
- [328.] Mathematical results in signal and image processing, *Doklady of Russian Acad. Sci.*, 339, N1, (1994), 11-14.
(with A. Katsevich)
- [329.] Stability estimates for obstacle scattering, *J. Math. Anal. Appl.* 188, N3, (1994), 743-751.
- [330.] Examples of nonuniqueness for an inverse problems of geophysics, *Appl. Math. Lett.*, 8, N4, (1995), 87-90.
- [331.] Finding discontinuities from tomographic data, *Proc. Amer. Math. Soc.*, 123, N8, (1995), 2499-2505.
- [332.] Property C with constraints, *Compt. Rendus, Paris*, ser 1, 321, N 11, (1995), 1413-1417.
- [333.] Asymptotics of the solutions to singularly perturbed multidimensional integral equations, *J. Math. Anal. Appl.*, 190, N3, (1995), 667-677.
(with E. Shifrin)
- [334.] Continuous dependence of the scattering amplitude on the surface of an obstacle, *Math. Methods in the Appl. Sci.*, 18, (1995), 121-126.
- [335.] An inverse problem for multiple scattering of fast charged particles in mesoscopic medium, *Phys. Rev. B*, 51, N4, (1995), 2406-2409.
(with G. Berman).
- [336.] Asymptotics of PDO on discontinuous functions near singular support, *Appl. Analysis*, 58, N3-4, (1995), 383-390.
(with A. Katsevich).
- [337.] New methods for finding values of the jumps of a function from its local tomographic data, *Inverse Problems*, 11, N 5, (1995) 1005-1023.
(with A. Katsevich)
- [338.] The Radon transform is an isomorphism between $L^2(B)$ and $H_e(Z_a)$, *Appl. Math. Lett.*, 8, N1, (1995), 25-29.
- [339.] Finding singular support of a function from its tomographic data, *Proc. Japan Acad., Math. Sci.*, 71, N3, (1995), 62-67.
(with A. Katsevich)
- [340.] A formula for inversion of boundary data, *J. of Inverse and Ill-Posed Problems*, 3, N5, (1995), 411-415.
- [341.] Radon transform on distributions, *Proc. Japan Acad.*, ser A, 71, N9, (1995), 202-206.
- [342.] Inverse geophysical and potential scattering on a small body, in the book: *Experimental and Numerical Methods for Solving Ill-Posed Inverse Problems: Medical and Nonmedical Applications*, vol. SPIE-2570, (1995), 151-162.
(with A. Katsevich)
- [343.] Uniqueness theorems for inverse obstacle scattering problems in Lipschitz domains, *Appl. Analysis*, 59, (1995), 377-383.
- [344.] Inversion of cone-beam data and helical tomography, *Jour. of Inverse and Ill-Posed Probl.* 3, N6, (1995), 429-445.
(with V. Faber and A. Katsevich)
- [345.] Consistency of rank test against general alternatives of change points (surfaces) and continuous trend, *Acta Appl. Math.*, 42, N2, (1996), 105-137.
(with A. Katsevich)
- [346.] Finding jumps of a function using local tomography, *PanAmer. Math. Jour.*, 6, N2, (1996), 1-21.
(with A. Katsevich)
- [347.] Approximate inverse geophysical scattering on a small body, *SIAM J. Appl. Math.*, 56, N1, (1996), 192-218.
(with A. Katsevich)
- [348.] **The Radon Transform and Local Tomography, CRC Press, Boca Raton 1996, pp.1-503.**
(with A. Katsevich)
- [349.] Estimates from below for Lebesgue constants, *J. Fourier Anal. and Appl.* 2, N3, (1996), 287-301.
(with E. Liflyand and A. Zaslavsky)
- [350.] Finding potential from the fixed-energy scattering data via D-N map, *J. of Inverse and Ill-Posed Problems*, 4, N2, (1996), 145-152.
- [351.] Completeness and non-completeness results for the set of products of solutions to differential equations, *Applicable Analysis*, 60, (1996), 241-249.
(with G. Porru)

- [352.] The scattering problem analyzed by means of an integral equation of the first kind, *J. Math. Anal. Appl.*, 201, (1996), 324-327.
- [353.] Necessary and sufficient conditions for a PDO to be a local tomography operator, *Comptes Rend Acad Sci, Paris*, 332, N7, (1996), 613-618.
- [354.] Inversion formulas for the backprojection operator in tomography, *Proc. Amer.Math.Soc.*, 124, N2, (1996), 567-577.
- [355.] Approximate solution to inverse scattering problem for potentials with small support, *Math.Meth. in the Appl.Sci.*, 19, (1996), 1121-1134. (with A.Katsevich)
- [356.] Pseudolocal tomography, *SIAM J. Appl. Math.*, 56, N1, (1996), 167-191. (with A.Katsevich)
- [357.] Existence and uniqueness of scattering solutions in non-smooth domains, *J. Math. Anal. Appl.*, 201, (1996), 329-338. (with A.Ruiz)
- [358.] Minimization of the total radiation from an obstacle by a control function on a part of the boundary, *Jour. of Inverse and Ill-posed Prob.*, 4, N6, (1996), 531-534.
- [359.] Property C with constraints and PDE, *Proc. of the Japan Acad.*, 72A, N. 10, (1996), 235-237.
- [360.] **Random fields estimation theory, MIR, Moscow, 1996, pp.1-352** (expanded Russian edition of monograph 246).
- [361.] Small body approximation and efficient algorithm for solving inverse problems, *Advances in Optic.Imaging and Photon migration, Opt.Soc. of America, AWD4*, (1996), pp.1-4. (with A.Katsevich and J.George)
- [362.] New methods for finding discontinuities of functions from local tomographic data, *Jour. of Inverse and Ill-Posed Problems*, 5, N2, (1997), 165-174.
- [363.] The Pompeiu problem, *Applicable Analysis*, 64, N1-2, (1997), 19-26.
- [364.] Finding small objects from tomographic data, *Inverse problems*, 13, (1997), 1239-1246 (with L.Desbat)
- [365.] Multidimensional inverse scattering with fixed-energy data, in the book "Quantum Inversion", *Lecture Notes in physics vol.488*, pp. 373-384, Springer Verlag, Berlin, 1997 (ed. B.Apagyai).
- [366.] New approach to scattering in irregular waveguides, *Math. Sci. Research Hot-Line*, 1, N3, (1997), 1-2.
- [367.] Theory of ground-penetrating radars, *Jour. of Inverse and Ill-Posed Problems*, 5, N4, (1997), 377-384. (with A.Shcheprov)
- [368.] A method for finding small inhomogeneities from surface data, *Math.Sci. Research Hot-Line*, 1, N10, (1997), 40-42.
- [369.] Formula for the radius of the support of the potential in terms of the scattering data, *Jour. of Phys. A*, 31, N1, (1998), L39-L44. (with J.H.Arredondo and B.G.Izquierdo)
- [370.] Scattering by obstacles in acoustic waveguides, In the book: *Spectral and scattering theory*, Plenum publishers, New York, 1998 (ed. A.G.Ramm), pp.89-110. (with G.Makrakis)
- [371.] Fundamental solutions to elliptic equations with discontinuous senior coefficients and an inequality for these solutions. *Math. Ineq. and Applic.*, 1, N1, (1998), 99-104.
- [372.] Inverse acoustic scattering by layered obstacles (with C.Athanasiadis and I.Stratis), In the book: *Inverse problems, tomography and image processing*, Plenum Publishers, New York, 1998, pp.1-8. (editor A.G.Ramm).
- [373.] Recovery of compactly supported spherically symmetric potentials from the phase shift of s-wave, In the book: *Spectral and scattering theory*, Plenum publishers, New York, 1998 (ed. A.G.Ramm), pp.111-130.
- [374.] Inequalities for norms of some integral operators *Math. Ineq. and Applic.* 1, N2, (1998), 259-265.
- [375.] Recovery of a quarkonium system from experimental data, *Jour. of Phys. A*, 31, N15, (1998), L295-L299.
- [376.] Compactly supported spherically symmetric potentials are uniquely determined by the phase shift of s-wave, *Phys. Lett. A*, 242, N4-5, (1998), 215-219.
- [377.] On Saitoh's characterization of the range of linear transforms, In the book: *Inverse problems, tomography and image processing*, Plenum publishers, New York, 1998, (ed. A.G.Ramm) pp. 125-128.
- [378.] **Spectral and scattering theory, Plenum publishers, New York, 1998** (editor A.G.Ramm)
- [379.] **Inverse problems, tomography and image processing, Plenum publishers, New York, 1998** (editor A.G. Ramm)
- [380.] Theory of ground-penetrating radars II, *Jour of Inverse and Ill-Posed Probl.*, 6, N6, (1998), 619-624.
- [381.] On the theory of reproducing kernel Hilbert spaces, *Jour. of Inverse and Ill-Posed Problems*, 6, N5, (1998), 515-520.
- [382.] Necessary and sufficient condition for a domain, which fails to have Pompeiu property, to be a ball, *Jour of Inverse and Ill-Posed Probl.*, 6, N2, (1998), 165-171.
- [383.] Inequality for the minimal eigenvalue of the Dirichlet Laplacian in an annulus, *Math. Inequalities and Applic.* 1, N4, (1998), 559-563. (with P.N.Shivakumar)

- [384.] A new approach to the inverse scattering and spectral problems for the Sturm-Liouville equation, *Ann. der Phys.*, 7, N4, (1998), 321-338.
- [385.] Calculation of waves scattered in irregular waveguides, *Proc. of the third international seminar on "Direct and inverse problems of electromagnetic and acoustic wave theory: DIPEd-98* pp.57-61.
(with N.Voitovich, Yu.Topolyuk and N.Zdeoruk)
- [386.] Continuous analog of Gauss-Newton method, *Math. Models and Methods in Appl. Sci.*, 9, N3, (1999), 463-474.
(with R.Airapetyan and A.Smirnova)
- [387.] Property C for ODE and applications to inverse scattering, *Zeit. fuer Angew. Analysis*, 18, N2, (1999), 331-348.
- [388.] A numerical method for solving nonlinear ill-posed problems, *Numerical Funct. Anal. and Optimiz.*, 20, N3, (1999), 317-332.
(with A.B.Smirnova)
- [389.] A numerical method for some nonlinear problems, *Math. Models and Meth. in Appl.Sci.*, 9, N2, (1999), 325-335.
- [390.] Inequalities for brachistohrone, *Math. Ineq. and Applic.*, 2, N1, (1999), 135-140.
- [391.] Inverse problem for an inhomogeneous Schrödinger equation, *Jour. Math. Phys.*, 40, N8, (1999), 3876-3880.
- [392.] Example of two different potentials which have practically the same fixed-energy phase shifts, *Phys. Lett A*, 254, N3-4, (1999), 141-148.
(with R.Airapetyan and A.Smirnova).
- [393.] Inverse scattering problem with part of the fixed-energy phase shifts, *Comm. Math. Phys.* 207, N1, (1999), 231-247.
- [394.] An approximate method for solving inverse scattering problem with fixed-energy data, *Jour. of Inverse and Ill-Posed Problems*, 7, N6, (1999), 561-571.
(with W.Scheid)
- [395.] Finding small inhomogeneities from scattering data, *Jour. of Inverse and Ill-Posed Problems*, 8, N2, (2000), 205-210.
- [396.] An inverse problem for point inhomogeneities, *Methods of Functional Analysis and Topology*, 6, N2, (2000), 1-12.
(with F.Gesztesy)
- [397.] Inequalities for the derivatives, *Math. Ineq. and Appl.*, 3, N1, (2000), 129-132.
- [398.] The ground-penetrating radar problem III *Jour. of Inverse and Ill-Posed Problems*, 8, N1, (2000), 23-31.
- [399.] Application of the hybrid stochastic-deterministic minimization method to a surface data inverse scattering problem, In the book "Operator Theory and its Applications", *Amer. Math. Soc., Fields Institute Communications* vol.25, Providence, RI, 2000, pp.293-304.
(editors A.G.Ramm, P.N.Shivakumar, A.V.Strauss).
(with S.Gutman)
- [400.] A numerical method for solving the inverse scattering problem with fixed-energy phase shifts, *Jour. of Inverse and Ill-Posed Problems*, 8, N3, (2000), 307-322.
(with A.Smirnova)
- [401.] Dynamical systems and discrete methods for solving nonlinear ill-posed problems, *Appl.Math.Reviews*, vol. 1, Ed. G. Anastassiou, World Sci. Publishers, 2000, pp.491-536.
isbn 981-02-4339-1.
(with R.Airapetyan)
- [402.] Property C for ODE and applications to inverse problems, in the book "Operator Theory and Its Applications", *Amer. Math. Soc., Fields Institute Communications* vol. 25,(2000), pp.15-75, Providence, RI.
(editors A.G.Ramm, P.N.Shivakumar, A.V.Strauss).
- [403.] Continuous methods for solving nonlinear ill-posed problems, In the book "Operator theory and applications", *Amer. Math. Soc., Fields Institute Communications*, Providence,RI, 2000, pp. 111-138.
(editors A.G.Ramm, P.N.Shivakumar, A.V.Strauss).
(with R.Airapetyan, A.Smirnova)
- [404.] A new approach to inverse spectral theory III. Short range potentials, *J. d'Analyse Math.*, 80, (2000), 319-334.
(with B.Simon)
- [405.] Krein's method in inverse scattering, in the book "Operator Theory and Its Applications", *Amer. Math. Soc., Fields Institute Communications* vol.25, pp.441-456, Providence, RI, 2000.
(editors A.G.Ramm, P.N.Shivakumar, A.V.Strauss),
- [406.] Justification of the limiting absorption principle in R^2 , in the book "Operator Theory and Its Applications", *Amer. Math. Soc., Fields Institute Communications* vol.25, pp.433-440, Providence, RI, 2000.
(editors A.G.Ramm, P.N.Shivakumar, A.V.Strauss).
- [407.] **Operator Theory and Its Applications, Amer. Math. Soc., Fields Institute Communications vol.25, Providence RI, 2000, pp.1-600.**
(editors A.G.Ramm, P.N.Shivakumar, A.V.Strauss).
isbn 0-8218-1990-9

- [408.] Numerical inversion of the Laplace transform from the real axis, *J. Math. Anal. Appl.*, 248, (2000), 572-587. (with R.Airapetyan)
- [409.] Existence and uniqueness of the scattering solutions in the exterior of rough domains, in the book "Operator Theory and Its Applications", Amer. Math. Soc., Fields Institute Communications vol.25, pp.457-472, Providence, RI, 2000. (with M.Sammartino) (editors A.G.Ramm, P.N.Shivakumar, A.V.Strauss).
- [410.] A uniqueness result for the inverse transmission problem, *Internat. Jour. of Appl. Math.*, 2, N5, (2000), 625-634. (with P.Pang and G.Yan)
- [411.] Numerical implementation of the cross section method for irregular waveguides, *Radiophysics and radioastronomy*, 5, N3, (2000), 274-283. (with N.Voitovich, O.Zamorska)
- [412.] A non-overdetermined inverse problem of finding the potential from the spectral function, *IJDEA (Intern. J. of Diff. Eq. and Appl.)*, 3, N1, (2001), 15-29.
- [413.] An inverse problem of ocean acoustics, *Jour. of Inverse and Ill-Posed Probl.*, 9, N1, (2001), 95-102.
- [414.] Singularities of the Radon transform, *Applic. Analysis.*, 79, N3-4, (2001), 351-379. (with R.Airapetyan)
- [415.] On stable numerical differentiation, *Mathem. of Computation*, 70, (2001), 1131-1153. (with A.Smirnova)
- [416.] Embedding operators for rough domains, *Math. Ineq. and Applic.*, 4, N1, (2001), 127-141. (with V. Gol'dshtein)
- [417.] Some identification problems for integro-differential operator equations, *Nonlinear Functional Analysis and Applic.*, 6, N1, (2001), 107-123. (with A.Lorenzi)
- [418.] Linear ill-posed problems and dynamical systems, *Jour. Math. Anal. Appl.*, 258, N1, (2001), 448-456.
- [419.] A simple proof of the Fredholm alternative and a characterization of the Fredholm operators, *Amer. Math. Monthly*, 108, N 9, (2001), 855-860.
- [420.] New proof of Weyl's theorem, *IJDEA (Intern. J of Diff Eq. and Appl)*, 3, N1, (2001), 31-37.
- [421.] Piecewise-constant positive potentials with practically the same fixed-energy phase shifts, *Applicable Analysis*, 78, N1-2, (2001), 207-217. (with S.Gutman)
- [422.] An inverse problem for the heat equation, *Jour. of Math. Anal. Appl.*, 264, N2, (2001), 691-697.
- [423.] An inverse problem for an abstract evolution equation, *Applic. Analysis*, 79, N3-4, (2001), 475-482. (with S.Koshkin)
- [424.] Reconstruction of the potential from I-function, *Jour. of Inverse and Ill-Posed Probl.*, 10, N4, (2002), 385-395.
- [425.] Stability of solutions to inverse scattering problems with fixed-energy data, *Milan Journ of Math.*, 70, (2002), 97-161.
- [426.] Continuous regularized Gauss-Newton-type algorithm for nonlinear ill-posed equations with simultaneous updates of inverse derivative, *Intern. Jour. of Pure and Appl Math.*, 2, N1, (2002), 23-34. (with A.B. Smirnova)
- [427.] Stable identification of piecewise-constant potentials from fixed-energy phase shifts, *Jour. of Inverse and Ill-Posed Probl.*, 10, N4, (2002), 345-360. (with S.Gutman)
- [428.] Regularization of ill-posed problems with unbounded operators, *J. Math. Anal. Appl.*, 271, (2002), 547-550.
- [429.] Numerically efficient version of the T-matrix method, *Applic. Analysis*, 80, N3, (2002), 385-393.
- [430.] Modified Rayleigh Conjecture and applications, *Jour. Phys. A*, 35, (2002), L357-361.
- [431.] Analysis of the Newton-Sabatier scheme for inverting fixed-energy phase shifts, *Applic. Analysis*, 81, N4, (2002), 965-975.
- [432.] Estimation of random fields, *Theory of Probability and Math. Statistics*, 66, (2002), 95-108. Translation: *Theory Probab. Math. Statist. No. 66* (2003), 105-118.
- [433.] A counterexample to a uniqueness result, *Applic. Analysis*, 81, N4, (2002), 833-836.
- [434.] Recovery of small inhomogeneities from partial boundary measurements, *Compt. Rendus Acad. Sci. Paris, ser IIb*, 330, N3, (2002), 199-205. (erratum *C.R. Mechanique*, 330 (2002), 601). (with H.Ammari)
- [435.] Inverse scattering by the stability index method, *Jour. of Inverse and Ill-Posed Probl.*, 10, N5, (2002), 487-502. (with S.Gutman and W. Scheid)
- [436.] Convergence rates of the continuous regularized Gauss-Newton method, *Jour. Inv. Ill-Posed Probl.*, 10, N3, (2002), 261-280. (with B.Kaltenbacher and A.Neubauer)
- [437.] Numerical implementation of the MRC method, *J. Phys A.*, 35, (2002), 8065-8074. (with S.Gutman)

- [438.] An inverse problem for the heat equation II, *Applic. Analysis*, 81, N4, (2002), 929-937.
- [439.] Acceleration of convergence of a continuous analog of the Newton method, *Applic. Analysis*, 81, N4, (2002), 1001-1004.
- [440.] Injectivity of the spherical means operator, *Compt. Rend. Acad. Sci., Paris, Ser I*, 335, N12, (2002), 1033-1038.
- [441.] Stable numerical differentiation: when is it possible? *Jour. Korean SIAM*, 7, N1, (2003), 47-61.
(with A. Smirnova)
- [442.] Analytical solution of a new class of integral equations, *Diff. Integral Eqs*, 16, N2, (2003), 231-240.
- [443.] Continuous modified Newton's-type method for nonlinear operator equations, *Ann. di Mat. Pure Appl*, 182, N1, (2003), 37-52.
(with A. Smirnova, A. Favini)
- [444.] On a new notion of regularizer, *J. Phys A*, 36 (2003), 2191-2195.
- [445.] Comments on the letter of P. Sabatier, <http://arXiv.org/abs/math-ph/0308025>, PaperId: math-ph/0308025.
- [446.] Optimal with respect to accuracy algorithms for calculation of multidimensional weakly singular integrals and applications to calculation of capacitances of conductors of arbitrary shapes, *Acta Applicandae Math*, 79, N3, (2003), 281-326.
(with I. Boikov)
- [447.] On deconvolution methods, *Internat. Jour. of Engin. Sci.*, 41, N1, (2003), 31-43.
(with A. Galstian)
- [448.] Inequalities for the transformation operators and applications, *JIPAM (Jour. of Inequalities in Pure and Appl. Math.)* 4, N4, (2003), pp.1-9. (paper 69).
- [449.] On the discrepancy principle, *Nonlinear Functional Anal. and Applic.*, 8, N2, (2003), 307-312.
- [450.] Equations for the self-consistent field in random medium, *Phys. Lett. A*, 312, N3-4, (2003), 256-261.
- [451.] A characterization of unbounded Fredholm operators, *Cubo a Mathem. Journ.*, 5, N3, (2003), 91-95.
- [452.] Global convergence for ill-posed equations with monotone operators: the dynamical systems method, *J. Phys A*, 36, (2003), L249-L254.
- [453.] Support function method for inverse obstacle scattering problems, In the book "Acoustics, mechanics and related topics of mathematical analysis", World Scientific, New Jersey, 2003, (ed. A. Wirgin), pp.178-184.
(with S. Gutman)
- [454.] Dynamical systems method for solving nonlinear operator equations, *International Jour. of Applied Math. Sci.*, 1, N1, (2004), 97-110.
- [455.] Explanation of Feynman's paradox concerning low-pass filters, *International Jour. of Applied Math. Sci.*, 1, N1, (2004), 111-116
(with O.L. Weaver)
- [456.] Dynamical systems method for solving operator equations, *Communic. in Nonlinear Sci. and Numer. Simulation*, 9, N2, (2004), 383-402.
- [457.] Inequalities for solutions to some nonlinear equations, *Nonlinear Functional Anal. and Applic.*, 9, N2, (2004), 233-243.
- [458.] Optimization methods in direct and inverse scattering, *The optimization research bridge*, No 13, 2004, pp.1-4. <http://www.ballarat.edu.au/ard/itms/CIAO/ORBNewsletter/>
(with S. Gutman)
- [459.] Inverse scattering with fixed-energy data, *Jour. of Indones. Math. Soc.*, 10, N1, (2004), 53-62.
- [460.] One-dimensional inverse scattering and spectral problems, *Cubo a Mathem. Journ.*, 6, N1, (2004), 313-426.
- [461.] Modified Rayleigh Conjecture for scattering by periodic structures, *International Jour. of Applied Math. Sci.*, 1, N1, (2004), 55-66.
(with S. Gutman)
- [462.] Continuity of solutions to operator equations with respect to a parameter, *Internat. Jour. of Pure and Appl. Math. Sci.*, 1, N1, (2004), 1-5.
- [463.] Numerical solution of obstacle scattering problems, *Internat. Jour. of Appl. Math and Mech.*, 1, (2005), 1-32.
(with S. Gutman)
- [464.] An essay on some problems of approximation theory, In the book: *Ten Mathematical Essays on Approximation in Analysis and Topology*, Elsevier, Boston, 2005, pp.245-262 (Eds J. Perrera, J. Lopez-Gomez, F. Ruiz del Portal), isbn 0-444-51861-4
- [465.] On deconvolution problems: numerical aspects, *Jour. Comp. Appl. Math.*, 176, N2, (2005), 445-460.
(with A. B. Smirnova)
- [466.] Dynamical systems method and surjectivity of nonlinear maps, *Communic. in Nonlinear Sci. and Numer. Simulation*, 10, N8, (2005), 931-934.
- [467.] Analysis of a linear sampling method for identification of obstacles, *Acta Appl. Math. Sinica*, 21, N3, (2005), 399-404.
(with S. Gutman)

- [468.] Symmetry problems in the elasticity theory problem for plane cracks of normal rupture, Prikl. Math. Mech., 69, No 1., (2005), 146-154.
English translation: Journ of Appl. Math. and Mechan., 69, (2005), 127-134.
(with E.Shifrin)
- [469.] DSM for ill-posed equations with monotone operators, Comm. in Nonlinear Sci. and Numer. Simulation, 10, N8, (2005),935-940.
- [470.] **Inverse problems**, Springer, New York, 2005.
- [471.] Inequalities for the derivatives and stable differentiation of piecewise-smooth discontinuous functions, Math. Ineq and Applic., 8, N1, (2005), 169-172.
- [472.] Necessary and sufficient conditions for compactness of the embedding operator, JIPAM (Journ. of Ineq. in Pure and Appl. Math), 6, N5, Article 130, (2005).
- [473.] Determination of the shape of the ear channel, Math. Sci. Res. Journ., 9(6)(2005), 139-141.
- [474.] Discrepancy principle for the dynamical systems method, Communic. in Nonlinear Sci. and Numer. Simulation, 10, N1, (2005), 95-101
- [475.] Modified Rayleigh Conjecture method for multidimensional obstacle scattering problems, Numer. Funct. Anal. and Optimization, 26, N2, (2005), 69-80.
(with S.Gutman)
- [476.] **Wave scattering by small bodies of arbitrary shapes**, World Sci. Publishers, Singapore, 2005.
- [477.] Embedding operators and boundary-value problems for rough domains, Intern. Jour. of Appl. Math. Mech., 1, (2005), 51-72.
(with V.Gol'dshtein)
- [478.] Integral operators basic in random fields estimation theory, Internat. Jour. of Pure and Appl. Math. (IJPAM), 20, No. 3, (2005), 405-427.
(with A.Kozhevnikov)
- [479.] Optimization methods in direct and inverse scattering, in the book: Continuous Optimization: Current Trends and Modern Applications, Springer, New York, 2005, pp. 51-110. (Editors: V. Jeyakumar and A. M. Rubinov).
(with S.Gutman)
- [480.] A new discrepancy principle, J. Math. Anal. Appl., 310, (2005), 342-345.
- [481.] Modified Rayleigh Conjecture for static problems, Appl. Math. Lett., 18, N12, (2005), 1396-1399.
- [482.] Numerical method for solving obstacle scattering problems by an algorithm based on the Modified Rayleigh Conjecture, Intern. Jour. Appl Math. Sci, 2, N1, (2005), 11-21.
(with W.Chen)
- [483.] Singular perturbation theory for a class of Fredholm integral equations arising in random fields estimation theory, Integral Equations and Operator Theory (IEOT), 53, N1, (2005), 107-126.
(with E.Shifrin)
- [484.] Inverse problems for parabolic equations, Austral. Jour. Math.Anal. Appl. (AJMAA), 2, N2, (2005), Article 10, pp.1-5.
- [485.] Dynamical systems method (DSM) and nonlinear problems, in the book: Spectral Theory and Nonlinear Analysis, World Scientific Publishers, Singapore, 2005, 201-228. (ed J. Lopez-Gomez).
- [486.] **Random fields estimation**, World Sci. Publishers, Singapore, 2005.
- [487.] Uniqueness of the solution to inverse obstacle scattering problem, Phys. Lett A, 347, N4-6, (2005), 157-159.
- [488.] Dynamical systems method for nonlinear equations in Banach spaces, Communic. in Nonlinear Sci. and Numer. Simulation, 11, N3, (2006), 306-310.
- [489.] Dynamical systems method and a homeomorphism theorem, Amer. Math. Monthly, 113, N10, (2006), 928-933.
- [490.] A nonlinear singular perturbation problem, Asymptotic Analysis, 47, N1-2, (2006), 49-53.
- [491.] Dynamical systems method (DSM) for unbounded operators, Proc.Amer. Math. Soc., 134, N4, (2006), 1059-1063.
- [492.] Completeness of the set of scattering amplitudes, Phys. Lett. A, 360, N1, (2006), 22-25.
- [493.] Modified Rayleigh conjecture method with optimally placed sources, Jour. of Appl. Functional Analysis, 1, N2, (2006), 223-236.
(with S.Gutman)
- [494.] A scheme for a stable numerical differentiation, Jour. Comp. Appl. Math, 186, N2, (2006), 325-334.
(with U Jin Choi and Soyoung Ahn)
- [495.] Existence of a solution to a nonlinear equation, Jour. Math. Anal. Appl., 316, (2006), 764-767.
- [496.] The shape of the ear canal, Phys. Lett. A., 355, N4-5, (2006), 247-249.
- [497.] Finding discontinuities of piecewise-smooth functions, JIPAM (Journ of Inequalities in Pure and Appl. Math.) 7, N2, Article 55, pp. 1-7 (2006).
- [498.] Compactness of embeddings, Nonlinear Functional Analysis and Applications, 11, N4, (2006), 655-658.
- [499.] **Dynamical systems method for solving operator equations**, Elsevier, Amsterdam, 2007.
- [500.] Ill-posed problems with unbounded operators, Journ. Math. Anal. Appl., 325, (2007), 490-495.
- [501.] Dynamical systems method (DSM) for selfadjoint operators, Jour. Math. Anal. Appl., 328, (2007), 1290-1296.

- [502.] Two results on ill-posed problems, *Internat. Journ. Appl. Math. and Statist.*, 11, N7, (2007), 136-139.
- [503.] Inverse problems for parabolic equations 2, *Communic. in Nonlinear Sci. and Numer. Simulation*, 12, (2007), 865-868.
- [504.] Iterative solution of linear equations with unbounded operators, *Jour. Math. Anal. Appl.*, 330, N2, (2007), 1338-1346.
- [505.] A Schrödinger singular perturbation problem, *Communic. in Nonlinear Sci. and Numer. Simulation*, 12, (2007), 1390-1394.
- [506.] Electromagnetic wave scattering by many small particles, *Phys. Lett. A*, 360, N6, (2007), 735-741.
- [507.] Materials with the desired refraction coefficients can be made by embedding small particles, *Phys. Lett. A*, 370, 5-6, (2007), 522-527.
- [508.] Scattering by many small bodies and applications to condensed matter physics, *Europ. Phys. Lett.*, 80, (2007), 44001.
- [509.] Many-body wave scattering by small bodies and applications, *J. Math. Phys.*, 48, N10, (2007), 103511.
- [510.] Wave scattering by small particles in a medium, *Phys. Lett. A* 367, (2007), 156-161.
- [511.] Wave scattering by small impedance particles in a medium, *Phys. Lett. A* 368, N1-2, (2007), 164-172.
- [512.] A symmetry problem, *Ann. Polon. Math.*, 92, (2007), 49-54.
- [513.] Distribution of particles which produces a desired radiation pattern, *Communic. in Nonlinear Sci. and Numer. Simulation*, 12, N7, (2007), 1115-1119.
- [514.] Computational method for acoustic wave focusing, *Intern. Journ. Comp. Sci. and Math.*, 1, N1, (2007), 1-15. (with S. Gutman)
- [515.] Distribution of particles which produces a "smart" material, *Jour. Stat. Phys.*, 127, N5, (2007), 915-934.
- [516.] Distribution of particles which produces a desired radiation pattern, *Physica B*, 394, N2, (2007), 253-255.
- [517.] Invisible obstacles, *Ann. Polon. Math.*, 90, N2, (2007), 145-148.
- [518.] Many-body wave scattering by small bodies, *J. Math. Phys.*, 48, N2, 023512, (2007).
- [519.] Creating wave-focusing materials, *Inverse Problems, Design and Optimization, IPDO-2007 Vol. II*, (2007), pp. 687-690. (Ed. G. Dulikravich et al).
- [520.] Distribution of particles creating "smart" material, *International Journ. Tomog. Stat.*, 8, (2008), 25-31.
- [521.] An inverse problem with data on the part of the boundary, *Comm. Nonlin. Sci. and Numer. Simulation*, 13, (2008), 534-538.
- [522.] On unbounded operators and applications, *Appl. Math. Lett.*, 21, (2008), 377-382.
- [523.] Inverse scattering problem with data at fixed energy and fixed incident direction, *Nonlinear Analysis: Theory, Methods and Applications*, 69, N4, (2008), 1478-1484.
- [524.] Creating wave-focusing materials, *LAJSS (Latin-American Journ. of Solids and Structures)*, 5, (2008), 119-127.
- [525.] Discrepancy principle for DSM II, *Comm. Nonlin. Sci. and Numer. Simulation*, 13, (2008), 1256-1263.
- [526.] Solving ill-conditioned linear algebraic systems by the dynamical systems method (DSM), *Inverse Problems in Sci. and Engineering*, 16, N5, (2008), 617-630. (with N.S.Hoang)
- [527.] Modified Rayleigh Conjecture method and its applications, *Nonlinear Analysis: Theory, Methods and Appl.*, 68, (2008), 3884-3908. (with S.Gutman)
- [528.] Electromagnetic wave scattering by many conducting small particles, *J. Phys A*, 41, (2008), 212001.
- [529.] Dynamical systems method (DSM) for general nonlinear equations, *Nonlinear Analysis: Theory, Methods and Appl.*, 69, N7, (2008), 1934-1940.
- [530.] On stable numerical differentiation, *Australian J. Math. Anal. Appl.*, 5, N1, (2008), Article 5, pp.1-7. (with N.S.Hoang)
- [531.] Fixed-energy inverse scattering, *Nonlinear Analysis: Theory, Methods and Appl.*, 69, N3, (2008), 971-978.
- [532.] Some results on inverse scattering, *Modern Phys. Lett. B*, 22, N23, (2008), 2217-2240.
- [533.] A recipe for making materials with negative refraction in acoustics, *Phys. Lett. A*, 372/13, (2008), 2319-2321.
- [534.] Does negative refraction make a perfect lens? *Phys. Lett. A*, 372, (2008), 6518-6520.
- [535.] Electromagnetic wave scattering by small bodies, *Phys. Lett. A*, 372/23, (2008), 4298-4306.
- [536.] Wave scattering by many small particles embedded in a medium, *Phys. Lett. A*, 372/17, (2008), 3064-3070.
- [537.] Creating materials with desired properties, *Mathem. Forschungsinst. Oberwolfach*, report 58/2007, pp.10-13. "Material Theories" Dec. 16-22, 2007.
- [538.] A nonlinear inequality, *Jour. Math. Ineq.*, 2, N4, (2008), 459-464. (with N.S.Hoang)
- [539.] An iterative scheme for solving nonlinear equations with monotone operators, *BIT Numer. Math.* 48, N4, (2008), 725-741. (with N.S.Hoang)
- [540.] Creating wave-focusing materials, *Direct and Inverse Problems of Electromagnetic and Acoustic Wave Theory*, 2008. DIPED 2008. 13th International Seminar/Workshop, pp.31-37. ISBN: 978-966-02-4649-2

- [541.] Identification of obstacles for parabolic problems, *Internat. Jour. Tomog. Stat.*, 11, S09, (2009), 53-60.
(with H.Heck)
- [542.] Dynamical systems method for solving linear ill-posed problems, *Ann. Polon. Math.*, 95, N3, (2009), 253-272.
- [543.] Dynamical systems method for solving linear finite-rank operator equations, *Ann. Polon. Math.*, 95, N1, (2009), 77-93.
(with N.S. Hoang)
- [544.] An inverse problem for a heat equation with piecewise-constant thermal conductivity, *J. Math. Phys.*, 50, 063512 (2009).
(with N.S.Hoang)
- [545.] A DSM proof of surjectivity of monotone nonlinear mappings, *Annal. Polon. Math.*, 95, N2, (2009), 135-139.
- [546.] Finding the position of a small body in the presence of a large body from scattering data, *Inverse Probl. in Sci. and Engineering (IPSE)*, 17, N5, (2009), 699-712.
(with Y. Ol'shansky)
- [547.] Some open problems in analysis, *Austral Jour. Math.Anal.Appl.(AJMAA)*, (2009)
- [548.] Asymptotics of the solution to Robin problem, *J.Math.Anal.Appl.*, 349, N1, (2009), 156-164.
(with H-D.Alber)
- [549.] Dynamical Systems Gradient method for solving nonlinear equations with monotone operators, *Acta Appl. Math.*, 106, (2009), 473-499.
(with N.S.Hoang)
- [550.] A new version of the Dynamical Systems Method (DSM) for solving nonlinear equations with monotone operators, *Diff. Eqns and Appl.*, 1, N1, (2009), 1-25.
(with N.S. Hoang)
- [551.] On the relation between the S-matrix and the spectrum of the interior Laplacian, *Bull. Polish Acad of Sci. Mathem.*, 57, N2, (2009), 181-188.
- [552.] Preparing materials with a desired refraction coefficient and applications, In the book "Topics in Chaotic Systems: Selected Papers from Chaos 2008 International Conference", Editors C.Skiadas, I. Dimotikalis, Char. Skiadas, World Sci.Publishing, 2009, pp.265-273.
- [553.] Preparing materials with a desired refraction coefficient, *Nonlinear Analysis: Theory, Methods and Appl.*, 70, N12, (2009), e186-e190.
- [554.] A discrepancy principle for equations with monotone continuous operators, *Nonlinear Analysis: Theory, Methods and Appl.*, 70, (2009), 4307-4315.
(with N.S.Hoang)
- [555.] Attractors of strongly dissipative systems, *Bull. Polish Acad of Sci. Mathem.*, 57, N1, (2009),25-31.
- [556.] Symmetry problems 2, *Annal. Polon. Math.*, 96, N1, (2009), 61-64.
(with N.S.Hoang)
- [557.] Slow invariant manifolds for dissipative systems, *J.Math. Phys.*, 50, N1, (2009), 042701.
- [558.] A nonlinear inequality and applications, *Nonlinear Analysis: Theory, Methods and Appl.*, 71, (2009), 2744-2752.
(with N.S.Hoang)
- [559.] Numerical solution of many-body wave scattering problem for small particles, *Proc. DIPED-2009, Lviv, Ukraine, Sept. 21-24, (2009)*, pp. 77-81.
(with M.Andriychuk)
- [560.] A singular integral equation for electromagnetic wave scattering, *Internat. Journ. Pure and Appl. Math.*, 55, N4, (2009), 7-11.
- [561.] Boundary integral equation for electromagnetic wave scattering by a homogeneous body of arbitrary shape, *Intern. Journ. Pure and Appl. Math.*, 55, N4, (2009), 13-16.
- [562.] Inverse scattering with non-overdetermined data, *Phys. Lett. A*, 373, (2009), 2988-2991.
- [563.] A collocation method for solving integral equations, *Internat. Journ. Comp. Sci and Math.*, 3, N2, (2009), 222-228.
- [564.] Creating desired potentials by embedding small inhomogeneities, *J. Math. Phys.*, 50, N12,123525, (2009).
- [565.] Dynamical Systems Method for solving ill-conditioned linear algebraic systems, *Internat. Journ. Comp. Sci. Math. (IJCSM)*, 2, N4, (2009), 308-333.
(with S.Indratno)
- [566.] Property C for ODE and applications to an inverse problem for a heat equation, *Bull. Polish Acad of Sci. Mathem.*, 57, N3-4, (2009), 243-249.
- [567.] An iterative method for solving Fredholm integral equations of the first kind, *Internat. Journ. Comp. Sci. Math. (IJCSM)*, 2, N4, (2009), 354-379.
(with S.Indratno)
- [568.] Existence of solution to an evolution equation and a justification of the DSM for equations with monotone operators, *Comm. Math.Sci.*, 7, N4, (2009), 1073-1079.
(with N.S. Hoang)

- [569.] Inversion of the Laplace transform from the real axis using an adaptive iterative method, *Internat. Jour. Math. Math. Sci (IJMMS)*, Vol. 2009, Article 898195, 38 pages;
doi:10.1155/2009/898195
(with S.Indratno)
- [570.] Asymptotic stability of solutions to abstract differential equations, *Journ. of Abstract Diff. Equations and Applications (JADEA)*, 1, N1, (2010), 27-34.
- [571.] How to prepare materials with a desired refraction coefficient, *Proceedings of ISCMII and EPMESCXII, AIP Conference Proceedings 1233*, (2010), pp. 165-168.
- [572.] Dynamical systems gradient method for solving ill-conditioned linear algebraic systems, *Acta Applic. Math.*, 111, N2, (2010), 189-204.
(with N.S. Hoang)
- [573.] Collocation method for solving some integral equations of estimation theory, *Internat. Journ. of Pure and Appl. Math.*, 62, N1, (2010), 57-65.
- [574.] Dynamical systems method for solving nonlinear equations with monotone operators, *Math. of Comput.*, 79, 269, (2010), 239-258.
(with N.S. Hoang)
- [575.] Implicit Function Theorem via the DSM, *Nonlinear Analysis: Theory, Methods and Appl.*, 72, N3-4, (2010), 1916-1921.
- [576.] Inverse problem for a heat equation with piecewise-constant conductivity, *J. Appl. Math and Informatics (JAMI)*, 28, N3-4, (2010), 551-561.
(with S.Gutman)
- [577.] The Dynamical Systems Method for solving nonlinear equations with monotone operators, *Asian Europ. Math. Journ.*, 3, N1, (2010), 57-105.
(with N.S.Hoang)
- [578.] Dynamical Systems Method (DSM) for solving equations with monotone operators without smoothness assumptions on $F'(u)$, *J. Math. Anal. Appl.*, 367, N2, (2010), 508-515.
(with N.S.Hoang)
- [579.] Slow manifolds for dissipative dynamical systems *J. Math.Anal. Appl.*, 363, (2010), 729-732.
- [580.] Scattering by many small particles and creating materials with a desired refraction coefficient, *International Journ. Comp.Sci. and Math. (IJCSM)*, 3, N1/2, (2010), 102-121.
(with M.Andriychuk)
- [581.] Electromagnetic wave scattering by many small particles and creating materials with a desired permeability, *Progress in Electromag. Research, M*, 14, (2010), 193-206.
- [582.] On a new notion of the solution to an ill-posed problem, *J. Comp. Appl. Math.*, 234, (2010), 3326-3331.
- [583.] Creating materials with a desired refraction coefficient: numerical experiments, *International Journ. Comp.Sci. and Math. (IJCSM)*, 3, N1/2, (2010), 76-101.
(with S.Indratno)
- [584.] Uniqueness theorem for inverse scattering problem with non-overdetermined data, *J.Phys. A, FTC*, 43, (2010), 112001.
- [585.] DSM of Newton-type for solving operator equations $F(u) = f$ with minimal smoothness assumptions on F , *International Journ. Comp.Sci. and Math. (IJCSM)*, 3, N1/2, (2010), 3-55.
(with N.Hoang)
- [586.] Electromagnetic wave scattering by many small bodies and creating materials with a desired refraction coefficient, *Progress in Electromagnetic Research M (PIER M)*, 13, (2010), 203-215.
- [587.] A nonlinear inequality and evolution problems, *Journ, Ineq. and Special Funct.*, (JIASF), 1, N1, (2010), 1-9.
- [588.] Numerical modeling in wave scattering problem for small particles, *Proc. of MIKON-2010, 18-th Internat. Conf. on microwave radar and wireless communications, Geozandas Ltd, Vilnius, Lithuania, 2010*, pp. 224-227.
(with M.Andriychuk)
- [589.] Uniqueness of the solution to inverse scattering problem with backscattering data, *Eurasian Math. Journ (EMJ)*, 1, N3, (2010), 97-111.
open access Journal.
- [590.] A method for creating materials with a desired refraction coefficient, *Internat. Journ. Mod. Phys B*, 24, 27, (2010), 5261-5268.
- [591.] Materials with a desired refraction coefficient can be created by embedding small particles into a given material, *International Journal of Structural Changes in Solids (IJSCS)*, 2, N2, (2010), 17-23.
- [592.] Electromagnetic wave scattering by a thin layer in which many small particles are embedded, *Progress in Electromagnetic Research Letters (PIER L)*, 19, (2010), 147-154.
- [593.] A theorem on entire functions, *Rev Roum Math Pure Appl.*, 55, N6, (2010), 515-519.
- [594.] Justification of the Dynamical Systems Method (DSM) for global homeomorphisms, *Eurasian Math. Journ (EMJ)*, 1, N4, (2010), 116-123.

- [595.] Wave scattering by many small bodies and creating materials with a desired refraction coefficient, *Afrika Matematika*, 22, N1, (2011), 33-55.
- [596.] Nonlinear differential inequality, *Mathematical Inequalities and Applications (MIA)*, 14, N4, (2011), 967-976. (with N.Hoang)
- [597.] Scattering by many small inhomogeneities and applications, In the book "Topics in Chaotic Systems: Selected Papers from Chaos 2010 International Conference", Editors C.Skiadas, I. Dimotikalis, Char. Skiadas, World Sci.Publishing, 2011. pp.41-52.
- [598.] Electromagnetic wave scattering by a small impedance particle of arbitrary shape, *Optics Communications*, 284, (2011), 3872-3877.
- [599.] A collocation method for solving some integral equations in distributions, *Journal of Computational and Applied Mathematics*, 236, (2011), 1296-1313 (with S.Indratno)
- [600.] Series that can be differentiated termwise m times if the function is m -smooth, *Mathematica Aeterna*, 1, N3, (2011), 137-148.
- [601.] On the DSM version of Newton's method, *Eurasian Math. Journ (EMJ)*, 2, N3, (2011), 91-99.
- [602.] Wave scattering by many small bodies and applications, *J. Math. Phys.*, 59, 023519, (2011) (with A.Rona)
- [603.] Uniqueness of the solution to inverse scattering problem with scattering data at a fixed direction of the incident wave, *J. Math. Phys.*, 52, 123506, (2011).
- [604.] Some nonlinear inequalities and applications, *Journ. of Abstract Diff. Equations and Applications*, 2, N1, (2011), 84-101 (with N.Hoang)
- [605.] Stability of solutions to some evolution problems, *Chaotic Modeling and Simulation (CMSIM)*, 1, (2011), 17-27.
- [606.] How large is the class of operator equations solvable by a DSM Newton-type method? *Appl. Math. Lett*, 24, N6, (2011), 860-865.
- [607.] Scattering of scalar waves by many small particles, *AIP Advances*, 1, 022135, (2011).
- [608.] Uniqueness of the solution to inverse scattering problem with non-overdetermined data, *Proceedings of the International Conference on Inverse Problems in Engineering*, May 4-6, 2011, Orlando, Florida, USA, vol.5, (2011), pp. 281-286.
- [609.] Numerical solution of many-body wave scattering problem for small particles and creating materials with desired refraction coefficient,
Chapter in the book:
"Numerical Simulations of Physical and Engineering Processes", InTech., Vienna, 2011, pp.1-28. (edited by Jan Awrejcewicz)
ISBN 978-953-307-620-1
(with M. I. Andriychuk)
available online
<http://www.intechopen.com/articles/show/title/numerical-solution-of-many-body-wave-scattering-p>
- [610.] Scattering of electromagnetic waves by many thin cylinders, *Results in Physics*, 1, N1, (2011), 13-16.
- [611.] On the DSM Newton-type method, *J. Appl.Math. and Comp.,(JAMC)*, 38, N1-2, (2012), 523-533.
- [612.] **Dynamical Systems Method and Applications. Theoretical Developments and Numerical Examples.** Wiley, Hoboken, 2012, ISBN-13: 978-1-118-02428-7 (with N. S. Hoang)
- [613.] Dynamical Systems Method (DSM) for solving nonlinear operator equations in Banach spaces, *Eurasian Math. Journ (EMJ)*, 3, N1, (2012), 86-96.
- [614.] Scattering of electromagnetic waves by many thin cylinders: theory and computational modeling, *Optics Communications*, 285, N20, (2012), 4019-4026. (with M.Andriychuk)
- [615.] A variational principle and its applications, *Internat. Journ. of Pure Appl. Math.*, 77, N3, (2012), 309-313.
- [616.] DSM for general nonlinear equations, *Appl.Math. Lett.*, 25, (2012), 2009-2014.
- [617.] Stability of solutions to abstract evolution equations with delay, *Journ. Math.Anal. Appl. (JMAA)*, 396, (2012), 523-527.
- [618.] Electromagnetic wave scattering by a small impedance particle: theory and modeling, *Optics Communications*, 285, (2012), 1684-1691. (with M.Andriychuk and S. Indratno)
- [619.] A problem in analysis, *Analysis*, 32, N2, (2012), 1001-1003.
- [620.] Electromagnetic wave scattering by many small perfectly conducting particles of an arbitrary shape, *Optics Communications*, 285, N18, (2012), 3679-3683.
- [621.] Large-time behavior of the weak solution to 3D Navier-Stokes equations, *Appl. Math. Lett.*, 26, (2013), 252-257.

- [622.] Convergence of time-dependent Turing structures to a stationary solution, *Acta Appl. Math.*, 123, N1, (2013), 31-42.
 (with V.Volpert)
- [623.] Inverse scattering problem for Maxwell equations, *Math. Model. Nat. Phenom.*, 8, N1, (2013), 200-206.
- [624.] Heat transfer in a medium in which many small particles are embedded, *Math. Model. Nat. Phenom.*, 8, N1, (2013), 193-199.
- [625.] Spectral properties of Schrödinger-type operators and large-time behavior of the solutions to the corresponding wave equation, *Math. Model. Nat. Phenom.*, 8, N1, (2013), 207-214.
- [626.] Symmetry problem, *Proc. Amer. Math. Soc.*, 141, N2, (2013), 515-521.
- [627.] Stability result for abstract evolution problems, *Math. Meth. Appl. Sci.*, 36(4), (2013), 422-426.
- [628.] Electromagnetic wave scattering by small impedance particles of an arbitrary shape, *J. Appl. Math and Comput.*, (JAMC), 43, N1, (2013), 427-444.
 DOI: 10.1007/s12190-013-0671-3
- [629.] The Pompeiu problem, *Global Journ. of Math. Analysis (GJMA)*, 1, N1, (2013), 1-10.
 Open access Journal:
<http://www.sciencepubco.com/index.php/GJMA/issue/current>
- [631.] Stability of the solutions to evolution problems, *Mathematics*, 1, (2013), 46-64.
 doi:10.3390/math1020046
 Open access Journal:
<http://www.mdpi.com/journal/mathematics>
- [632.] Many-body wave scattering problems in the case of small scatterers, *J. of Appl. Math and Comput.*, (JAMC), 41, N1, (2013), 473-500.
- [633.] Wave scattering by many small bodies: transmission boundary conditions, *Reports on Math. Physics*, 71, N3, (2013), 279-290.
- [634.] Scattering of electromagnetic waves by many nano-wires, *Mathematics*, 1, (2013), 89-99.
 doi: 10.3390/math1030089.
 Open access Journal:
<http://www.mdpi.com/journal/mathematics>
- [635.] **Scattering of Acoustic and Electromagnetic Waves by Small Bodies of Arbitrary Shapes. Applications to Creating New Engineered Materials**,
 Momentum Press, New York, 2013.
- [636.] Asymptotic of some integral, *Analysis*, 33, (2013), 377-382.
- [637.] Electromagnetic wave scattering by a small impedance body of an arbitrary shape,
 Proceedings of the XIX-th International seminar/workshop on direct and inverse problems of electromagnetic and acoustic wave theory (DIPED-2014), Tbilisi, Georgia, Sept. 22-25, 2014, plenary talk, IEEE, pp. 9-11.
- [638.] Calculation of electromagnetic wave scattering by a small impedance particle of an arbitrary shape, *Math. Meth. in Natur. Phenomena (MMNP)*, 9, N5, (2014), 254-269.
 (with M.Andriychuk)
- [639.] Inverse scattering with under-determined scattering data, *Math. Meth. in Natur. Phenomena*, (MMNP), 9, N5, (2014), 244-253.
- [640.] Recovery of the potential from I -function, *Reports on Math. Phys.*, (ROMP), 74, N2, (2014), 135-143.
- [641.] Application of the asymptotic solution to EM wave scattering problem to creating medium with a prescribed permeability, *Journ Appl. Math. and Computing*, (JAMC), 45, (2014), 461-485.
 (With M. Andriychuk)
 doi: 10.1007/s12190-013-0732-7
- [642.] Electromagnetic wave scattering by small impedance particles of an arbitrary shape and applications, *Challenges*, 5, (2014), 35-42.
 doi:10.3390/challe5010035
 Open access Journal:
<http://www.mdpi.com/journal/challenges>
- [643.] Electromagnetic wave scattering by small perfectly conducting particles and applications, *J. Math. Phys.*, 55, 083505, (2014).
- [644.] Creating media with prescribed permeability using the asymptotic solution to EM wave scattering problem, *Mikon-2014, Gdansk, Poland, vol.1*, (2014), pp. 356-359.
 (with M.Andriychuk)
- [645.] A symmetry result for strictly convex domains, *Analysis*, 35 (1), (2015), 29-32.
- [646.] Existence and uniqueness of the global solution to the Navier-Stokes equations, *Applied Math. Letters*, 49, (2015), 7-11.
 DOI: <http://dx.doi.org/10.1016/j.aml.2015.04.008>
<http://authors.elsevier.com/sd/article/S0893965915001445>
<http://authors.elsevier.com/a/1R1KV3BGwepX9b> (link to download)

- [647.] Representation of vector fields, *Global Jour. Mathematical Analysis (GJMA)*, 3 (2) (2015) 73-76.
 open access: www.sciencepubco.com/index.php/GJMA;
<http://www.sciencepubco.com/index.php/GJMA/article/view/4577>
 doi: 10.14419/gjma.v3i2.4577
- [648.] Inverse scattering on the half-line revisited, *Reports on Math. Phys. (ROMP)*, 76, N2, (2015), 159-169.
- [649.] A fast algorithm for solving scalar wave scattering problem by billions of particles, *Jour. of Algorithms and Optimization*, 3, N1, (2015), 1-13.
 (with N. Tran)
 Open access: <http://www.academicpub.org/jao/Issue.aspx?Abstr=false>
- [650.] When are the zero-energy solutions to the Schrödinger equation bounded at infinity?
Jour. Math. Sci.: Advances and Applications (JMSAA), 33, (2015), 1-4.
 Open access: <http://scientificadvances.co.in>
- [651.] Existence of the solution to electromagnetic wave scattering problem for an impedance body of an arbitrary shape, *Applied Math. Lett.*, 41, (2015), 52-55.
 (with M. Schechter)
- [652.] Scattering of EM waves by many small perfectly conducting or impedance bodies, *J. Math. Phys. (JMP)*, 56, N9, 091901, (2015).
- [653.] A short proof of the existence of the solution to elliptic boundary problems, *Global Journ. of Mathem. Analysis (GJMA)*, 3, issue 3, (2015), 105-108.
 Open access: <http://www.sciencepubco.com/index.php/GJMA/article/view/4731>
 doi: 10.14419/gjma.v3i3.4731
- [654.] EM wave scattering by many small impedance particles and applications to materials science, *The Open Optics Journal*, 9, (2015), 14-17
 Open access: <http://benthamopen.com/TOOPTSJ/VOLUME/9/>
- [655.] Creating materials in which heat propagates along a line, *Boll Union. Math. Ital. (BUMI)*, 8, N3, (2015), 165-168.
 published Sep.8, (2015) online
 DOI 10.1007/s40574-015-0033-1
- [656.] Representation of big data by dimension reduction, *Fundamental Journ. of Math. and Math. Sciences*, 4, N1, (2015), 23-34.
 (with Cong Van)
- [657.] Large-time behavior of solutions to evolution equations,
Handbook of Applications of Chaos Theory, Chapman and Hall/CRC, 2016, pp. 183-200 (ed. C.Skiadas).
 ISBN 9781466590434-CAT# K20464
- [658.] Integral equations and applications,
Handbook of Applications of Chaos Theory, Chapman and Hall/CRC, (ed. C.Skiadas), pp. 163-182.
- [659.] Antenna synthesis by the modulus of the diagram, *Journal of Advances in Applied Mathematics (JAAM)*, 1, N1, (2016), 1-11.
 open access: http://www.isaac-scientific.org/images/PaperPDF/20002_015122115134414313.pdf
 (with M. Andriychuk)
- [660.] Heat transfer in a complex medium, In the book "The Foundations of Chaos Revisited: From Poincare to Recent Advances", Springer, 2016, pp. 119-136.
 ISBN 978-3-319 29699-9 (print); 978-3-319 29701-9 (online)
- [661.] Uniqueness of the solution to inverse obstacle scattering with non-over-determined data, *Appl. Math. Lett.*, 58, (2016), 81-86.
- [662.] A simple proof of the closed graph theorem, *Global Journ. Math. Anal. (GJMA)*, 4, N1, (2016), 1.
 open access Journal.
 doi: 10.14419/gjma.v4i1.5534
- [663.] Inverse obstacle scattering with non-over-determined data,
 2016 International Conference on Mathematical Methods in Electromagnetic Theory, pp. 85-88.
- [664.] EM Wave Scattering on a Set of Small Particles and Creation of Materials with Desired Refraction Coefficient and Magnetic Permeability,
 2016 International Conference on Mathematical Methods in Electromagnetic Theory, pp. 410-413.
 (with M. I. Andriychuk)
- [665.] Creating materials in which heat propagates along a line: theory and numerical results, *Pure and Applied Functional Analysis (PAFA)*, 2, N4, (2017), 639-648.
 (with Cong Tuan Son Van)
 Open access Journal
- [666.] Solution to the Pompeiu problem and the related symmetry problem,
Appl. Math. Lett., 63, (2017), 28-33.

- [667.] Inverse problems for parabolic equations with coefficient depending on time, *Engineering Science Letters (ESL)*, 1,(2017), 1-4.
Open access:
<http://esl.scik.org/a-g-ramm-inverse-problems-for-parabolic-equations-with-coefficient-depending-on-time-2017-2017-article-id-1-20-september-2017/>
- [668.] Global existence and estimates of the solutions to nonlinear integral equations, *Global Journal of Math. Analysis*, 5(1), (2017), 19-20.
Open access: <http://www.sciencepubco.com/index.php/GJMA/article/view/7306>
- [669.] A numerical method for solving 3D inverse scattering problem with non-over-determined data, *J. Pure Appl. Math.*, 1, N1, (2017), 1-3.
open access Journal
- [670.] **Scattering by obstacles and potentials**, World Sci. Publ., Singapore, 2017.
- [671.] On the denseness of the set of scattering amplitudes, *International Review of Physics*, 11, N4, (2017), 96-98.
- [672.] Perturbation of zero surfaces, *Global Journal of Math. Analysis*, 5(1), (2017), 27-28.
<http://www.sciencepubco.com/index.php/GJMA/article/view/7474>
- [673.] Global existence, uniqueness and estimates of the solution to the Navier-Stokes equations, *Appl. Math. Lett.*, 74, (2017), 154-160.
- [674.] **Creating materials with a desired refraction coefficient**, IOP Concise Physics, Morgan and Claypool Publishers, San Rafael, CA, USA, 2017.
- [675.] Completeness of the set $e^{ik\beta \cdot s}$, *Global Journ. of Math. Analysis (GJMA)*, 5(2), (2017), 43-44.
<https://www.sciencepubco.com/index.php/GJMA/article/view/7975>
doi: 10.14419/gjma.v5i2.7975
open access journal
- [676.] Finding a method for producing small impedance particles with prescribed boundary impedance is important, *J. Phys.Res. Appl.*, 1:1, (2017), 1-3.
open access Journal.
- [677.] Existence of the solutions to convolution equations with distributional kernels, *Global Journal of Math. Analysis*, 6(1), (2018),1-2.
open access Journal: <https://www.sciencepubco.com/index.php/GJMA/article/view/8632/2983rs> (ESL), (2018), 2018:2, 1-5.
- [678.] On the importance of producing small impedance particles with prescribed boundary impedance, *Engineering Science Letters (ESL)*, 2018, 2018:2, 1-5.
- [679.] Inverse problem of potential theory, *Appl. Math. Lett.*, 77, (2018), 1-5.
- [680.] A uniqueness theorem for inverse scattering problem with non-over-determined data, *Engineering Science Letters (ESL)*, 2018, 2018:3, 1-5.
- [681.] Many-body wave scattering problems for small scatterers and creating materials with a desired refraction coefficient, in the book "Mathematical Analysis and Applications: Selected Topics", Wiley, Hoboken NJ, 2018, Chapter 3, pp.57-76. (ed. M. Ruzhansky, H. Dutta, R. Agarwal)
- [682.] Inverse obstacle scattering with non-over-determined data, *Global Journ. of Math. Anal. (GJMA)*, 6 (1), (2018), 2-6.
<https://www.sciencepubco.com/index.php/GJMA/article/view/8887>
- [683.] A numerical algorithm for solving 3D inverse scattering problem with non-over-determined data, *J. Appl. Math. Stat. App.*, 2, N1, (2018), 11-13.
(with Cong Van)
open access Journal
<http://www.alliedacademies.org/journal-applied-mathematics-statistical-applications/inpress.php>
- [684.] Solution of the Navier-Stokes problem, *Appl. Math. Lett.*, 87, (2019), 160-164.
- [685.] Global existence and uniqueness of the solution to a nonlinear parabolic equation, *Journ. of Advances in Math.*, 14, N2, (2018), pp.1-4.
- [686.] Estimates of solutions to nonlinear evolution equations, *Journ of Advances in Math.*, 14, N2, (2018), pp.1-6.
- [687.] Global existence of solutions to nonlinear Volterra integral equations,
- [688.] necessary and sufficient condition for a surface to be a sphere, *Open J.Math.Anal. (OMA)*, 2, (2018), issue 2, 51-52.
Open access: <https://pisrt.org/psr-press/journals/oma/>