Athanassios S. Fokas, Ph.D.-M.D.

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EDUCATION

1972-75:	Department of Aeronautics, Imperial College, UK B.S. Degree, June 1975
1975-79:	Department of Applied Mathematics, California Institute of Technology, USA Ph.D. Degree, June 1979 (supervisor: P.A. Lägerstrom)
1983-86:	Ph.D.-M.D. Program, School of Medicine, University of Miami, USA, M.D. Degree, June 1986

EMPLOYMENT

1979-80:	Saul Kaplun Research Fellow in Applied Mathematics, California Institute of Technology, USA
1980-86:	Assistant Professor (1980-82), then Associate Professor (1982-86), Department of Mathematics and Computer Science, Clarkson University, USA
1986-93:	Professor and Chairman, Department of Mathematics and Computer Science, Clarkson University, USA
1987-88:	Visiting Professor, Department of Mathematics, Stanford University, USA
1993-95:	Professor, Department of Mathematical Sciences, Loughborough University, UK
1996-2001:	Professor of Applied Mathematics, Department of Mathematics, Imperial College, UK
2002-:	Professor of Nonlinear Mathematical Sciences, DAMTP, University of Cambridge, UK

AWARDS and HONOURS

- The Governors Prize in Aeronautics of Imperial College for 1975 (best student in the final year)
- The J.W. Graham Research Prize of Clarkson University for 1983 (best junior researcher)
- The Naylor Prize of the London Mathematical Society for 2000 (this is the premier prize in applied mathematics and mathematical physics in UK, first recipient Sir J. Lighthill, last recipient before A.S. Fokas, S.W. Hawking)
- The Aristeion Prize of the Academy of Athens for 2004 (this is the most prestigious prize of the Academy given every four years to a single scholar chosen from science, engineering, or medicine)
- Elected in December 2004 a Full Member of the Academy of Athens (the Academy of Athens has about 45 members covering all areas including sciences, engineering, medicine, arts, letters, political and moral sciences; A.S. Fokas, who is now the youngest member of the Academy, is the sixth mathematician elected in the Academy -the first was C. Caratheodory- and the first ever applied mathematician).
- Honorary member of the Institute of Computational and Applied Mathematics, Greece, 2002
- Honorary Doctorate of Sciences from the Technical University of Crete, Greece, 2004
- Honorary Doctorate of Applied Mathematics and Physical Sciences from the Technical University of Athens (Polytechneio), Greece, 2004
- Honorary Doctorate of Mathematics from the University of Patras, Greece, 2004
- Presented with the Decoration of the Order of Phoenix by the President of the Hellenic Republic on the 18th of January 2005 (only 14 people were included in the list of Honours).
- Elected in June 2005 a Professorial Fellow of Clare Hall.
- Honorary Doctorate in Mathematics from the University of Athens, Greece, 2006.
- The Excellence Prize of the Bodossaki Foundation (jointly with Professor D. Christodoulou), 2006.
- Honorary Member of the Philological Society Parnassos, 2006.

- ISI Web of Science includes A.S. Fokas in the list of the most highly cited researchers in the field of Mathematics (Pure Mathematics, Applied Mathematics , Propability and Statistics), see http://www.isihighlycited.com. In UK there exist only 13 mathematicians in this list.

EDITORIAL AND ADVISORY BOARDS

- President of the Governing body of the National Library of Greece.
- Member of the International Advisory Board of the Institute of Mathematical Sciences, Imperial College, UK (Chairman of the Board Lord Robert May).
- Member of the Advisory Board of the Centre for Nonlinear Mathematics and Applications, Loughborough University, UK.
- Member of the Advisory Committee of the Goulandris Natural History Museum.
- Co-Editor in chief of the Journal of Nonlinear Science.
- Associated Editor of the Series: Progress in Physics and Mathematical Physics, Birkhäuser.
- Member of the Editorial Board of the following Journals:
  - Proceedings of the Royal Society (Series A).
  - Selecta Mathematica.
  - Journal of Mathematical Physics.
  - Nonlinearity.
  - Studies in Applied Mathematics.
  - Mathematical Physics, Analysis and Geometry.
  - The Quarterly Journal of Mechanics and Applied Mathematics.
  - Journal of Mathematical Analysis and Applications.
  - Abstract and Applied Analysis.
  - Journal of Nonlinear Mathematical Physics.
  - Bulletin of the Greek Mathematical Society.
  - Communications in Applied Analysis.
  - International Journal of Differential Equations and Applications.

  - International Mathematical Journal.
  - International Journal for Rapid Publications in Mathematics.

EXTERNAL SUPPORT

- The Mathematics Section of the National Science Foundation of USA, 1982-1995.
- The National Science Foundation of USA, USA-Italy Cooperative Program, 1991-1994.
- The National Science Foundation of USA, USA-USSR Cooperative Program, 1992-1995.
- The Mathematics Division of the Office of the Naval Research of USA, 1982-1988.
- The Mathematics Division of the Air Force Office of Scientific Research of USA, 1987-1995.
- SERC, 1994-1997 (IBV Problems for Integrable Equations).
- EPSRC, 1995 (Integrability of the Einstein's Equations)
- EPSRC, 1999-2002 (Coherent Structures and the Asymptotic Behaviour of Nonlinear Integrable Equations in Multidimensions)
- EPSRC, 1999 (Random Matrices, Orthogonal Polynomials, and Riemann-Hilbert Problems)
- EC-TMR, 1998-2000 (Analytical and Numerical Aspects of PDEs Modelling Small Amplitude Long Water Waves)
- Royal Society, 2000 (Boundary Value Problems for the Laplace Equation)
- EC-TMR, 2000-2002 (Whitham equations, Asymptotics, and Algebraic Geometry)
- EPSRC, 2001 (Numerical Investigation of IBV Problems in Two and Three Dimensions)
- EPSRC, 2002 (Boundary Value Problems for Linear PDEs with Variable Coefficients and the Role of Soliton Theory in Hydrodynamics)
- EC-TMR, 2002-2004 (ODEs and PDEs in the Complex Plane)
- Royal Society, 2003 (Boundary Value Problems for the Tricomi Equation)
- EPSRC, 2003 (Soliton Generation for Time-Periodic Boundary Conditions)

- EPSRC, 2003 (A New Formulation of Water Waves in Three Dimensions and their Integrable Reductions)
- EPSRC, 2004-2007 (Boundary Value Problems for Multidimensional Nonlinear PDEs).
- EC-TMR, 2005-2008 (Magnetoencephalography- to host Prof. G. Dassios as Marie Curie Chair of Excellence)
- EC-TMR, 2006-2009 (Analysis of a Novel Class of Integrable PDEs)

INVITED TALKS

Has delivered around 300 talks in Congresses, International Conferences, Workshops, Colloquia and Seminars.
Among institutions where a colloquium has been given are: Harvard University (1983), Princeton University (1981, 1991, 1996), Yale University (1982, 1989, 1992), Massachusetts Institute of Technology (1982, 1996), Stanford University (1982, 1987, 1994, 2001), California Institute of Technology (1979, 1981, 1988, 1999), Courant Institute (1980, 1981, 1989,2002), Cornell University (1982), Columbia University (1988), Duke University (1991, 1994), UCLA (1979,1990), Brown University (1999), MSRI (1999), University of Berkeley (2005)

I. Newton Institute (1995, 1997, 2001), University of Cambridge (1999, 2002, 2004, 2005), Oxford University (1994, 1997, 1999, 2002, 2005), Imperial College (1994, 1995, 1997, 1998, 2000,2004), University of Warwick (1994, 1998), King's College (1998), ICMS (1999, 2001), University of Bristol (1996,2003), University of Edinburgh (1996), University of Bath (2001), University College (1999). Euler Institute (1992), Poincaré Institute (1995, 2003, 2004), University of Paris VI (1995, 1998, 2001, 2003, 2004), Tokyo University (1995), University of Kyoto (1995), University of Rome (1988, 1991), University of Amsterdam (1997), University of Lund (2002), SISSA (2005).

In June 13-17, 2005 he delivered ten lectures as the Principal speaker in a NSF-CBMS conference organised at the University of Texas, Pan-American (the conference was centered on a new method introduced by Fokas).

PUBLICATIONS – Journals

1. D.S. Cohen, A.S. Fokas and P.A. Lagerstrom, Proof of Some Asymptotic Results for a Model Equation for Low Reynolds Number Flow, SIAM J. Appl. Math., **35**, 187-207 (1978).
2. Ph.D. Thesis: Invariants, Lie-Bäcklund Operators, and Bäcklund Transformations, Caltech 1979.
3. A.S. Fokas, Group Theoretical Aspects of Constants of Motion and Separable Solutions in Classical Mechanics, J. Math. Anal. Applic., **68**, 347-370 (1979).
4. A.S. Fokas and R.L. Anderson, Group Theoretical Nature of Bäcklund Transformations, Lett. Math. Phys., **3**, 117-126 (1979).
5. A.S. Fokas, Generalized Symmetries and Constants of Motion of Evolution Equations, Lett. Math. Phys., **3**, 467-473 (1979).
6. A.S. Fokas and P.A. Lagerstrom, Quadratic and Cubic Invariants in Classical Mechanics, J. Math. Anal. Appl., **74**, 325-341 (1980).
7. A.S. Fokas and P.A. Lagerstrom, On the Use of Lie-Bäcklund Operators in Quantum Mechanics, J. Math. Anal. Appl., **74**, 342-358 (1980).
8. A.S. Fokas, A Symmetry Approach to Exactly Solvable Evolution Equations, J. of Math. Phys., **21**, 1318-1325 (1980).
9. A.S. Fokas and B. Fuchssteiner, On the Structure of Symplectic Operators and Hereditary Symmetries, Lettere Al Nuovo Cimento, **28**, 299-303 (1980).
10. Y.C. Yortsos and A.S. Fokas, An Analytical Solution for Linear Waterflood Including the Effects of Capillary Pressure, Society of Petroleum Engineers of AIME, SPE 9407, 115-124 (1980).
11. A.S. Fokas and B. Fuchssteiner, Bäcklund Transformations for Hereditary Symmetries, Nonlinear Analysis, TMA **5**, 423-432 (1981).
12. B. Fuchssteiner and A.S. Fokas, Symplectic Structures, Their Bäcklund Transformations and Hereditary Symmetries, Physica **4D**, 47-66 (1981).
13. A.S. Fokas and Y.C. Yortsos, The Transformation Properties of the Sixth Painlevé Equation and One-Parameter Families of Solutions, Lettere Al Nuovo Cimento **30**, 539-544 (1981).

14. A.S. Fokas and M.J. Ablowitz, Linearization of the Korteweg-deVries and Painlevé II Equations, Phys. Rev. Lett., **47**, 1096-1100 (1981).

15. A.S. Fokas and B. Fuchssteiner, The Hierarchy of the Benjamin-Ono Equation, Phys. Lett. **86A**, 341-345 (1981).

16. A.S. Fokas and Y.C. Yortsos, On the Exactly Solvable Equation $S_t = (\beta S + \gamma)^{-2} S_{xx} + \alpha(\beta S + \gamma)^{-2} S_x$ Occurring in Two-Phase Flow in Porous Media, SIAM J. Appl. Math. **42**, 318-332 (1982).

17. A.S. Fokas and M.J. Ablowitz, On a Unified Approach to Transformations and Elementary Solutions of Painlevé Equations, J. Math. Phys. **23**, 2033-2042 (1982).

18. M.J. Ablowitz, A.S. Fokas, J. Satsuma and H. Segur, On the Periodic Intermediate Long Wave Equations, J. Phys. A **15**, 781-786 (1982).

19. A.S. Fokas and R.L. Anderson, On the Use of Isospectral Eigenvalue Problems for Obtaining Hereditary Symmetries for Hamiltonian Systems, J. Math. Phys. **23**, 1066-1073 (1982).

20. M.J. Ablowitz, A.S. Fokas and R.L. Anderson, The Direct Linearizing Transform and the Benjamin-Ono Equation, Phys. Lett. A. **93**, 375-378 (1983).

21. A.S. Fokas and M.J. Ablowitz, On the Inverse Scattering and Direct Linearizing Transforms for the Kadomtsev-Petviashvili Equation, Phys. Lett. A. **94**, 67-70 (1983).

22. A.S. Fokas and M.J. Ablowitz, The Inverse Scattering Transform for the Benjamin-Ono Equation - A Pivot to Multidimensional Problems, Stud. Appl. Math. **68**, 1-10 (1983).

23. A.S. Fokas and M.J. Ablowitz, On the Inverse Scattering of the Time Dependent Schrödinger Equation and the Associated KPI Equation, Stud. Appl. Math., **69**, 211-228 (1983).

24. M.J. Ablowitz, D. Bar Yaacov and A.S. Fokas, On the Inverse Scattering Transform for the Kadomtsev-Petviashvili Equation, Stud. Appl. Math., **69**, 135-143 (1983).

25. A.S. Fokas, On the Inverse Scattering of First Order Systems in the Plane Related to Nonlinear Multidimensional Equations, Phys. Rev. Lett. **51**, 3-6 (1983).

26. A.S. Fokas and M.J. Ablowitz, On a Method of Solution for a Class of Multi-Dimensional Nonlinear Evolution Equations, Phys. Rev. Lett., **51**, 7-10 (1983).

27. A.S. Fokas and M.J. Ablowitz, On the Initial Value Problem of the Second Painlevé Transcendent, Comm. Math. Phys., **91**, 381-403 (1983).

28. A.S. Fokas and M.J. Ablowitz, On the Inverse Scattering Transform of Multi-dimensional Nonlinear Equations Related to First Order Systems in the Plane, J. Math. Phys., **25**, 2494-2505 (1984).

29. P.M. Santini, M.J. Ablowitz and A.S. Fokas, On the Limit from the Intermediate Long Wave Equation to the Benjamin-Ono Equation, J. Math. Phys. **25**, 892-899 (1984).

30. P.M. Santini, M.J. Ablowitz and A.S. Fokas, The Direct Linearization of a Class of Nonlinear Evolution Equations, J. Math. Phys., **25**, 2614-2619 (1984).

31. W. Oevel and A.S. Fokas, Infinitely Many Commuting Symmetries and Constants of Motion in Involution for Explicitly Time-Dependent Evolution Equations, J. Math. Phys. **25**, 918-922 (1984).

32. A.S. Fokas, An Inverse Problem for Multidimensional First Order Systems, J. Math. Phys. **27**, 1737-1746 (1986).

33. A.S. Fokas, Inverse Scattering and Integrability in Multidimensions, Phys. Rev. Lett. **57**, 159-162 (1986).

34. A.S. Fokas, R.A. Leo, L. Martina and G. Soliani, The Scaling Reduction of the Three-Wave Resonant System and the Painlevé VI Equation, Phys. Lett. A, **115**, 329-332 (1986).

35. A.S. Fokas and P.M. Santini, The Recursion Operator of the Kadomtsev-Petviashvili Equation and the Squared Eigenfunction of the Schrödinger Operators, Stud. Appl. Math. **75**, 179-186 (1986).

36. P.M. Santini, M.J. Ablowitz and A.S. Fokas, On the Initial Value Problem for a Class of Nonlinear Integral Evolution Equations Including the Sine-Hilbert Equation, J. Math. Phys. **28**, 2310-2316 (1987).

37. M.J. Ablowitz, A.S. Fokas and M.D. Kruskal, Note on Solutions to a Class of Nonlinear Singular Integro-Differential Equations, Phys. Lett. A., **120**, 215-218 (1987).

38. P.M. Santini and A.S. Fokas, Recursion Operators and Bi-Hamiltonian Structures in Multidimensions I, Comm. Math. Phys. **115**, 375-419 (1988).

39. A.S. Fokas and P.M. Santini, Recursion Operators and Bi-Hamiltonian Structures in Multidimensions II, Commun. in Math. Phys. **116**, 449-474 (1988).

40. A.S. Fokas, U. Mugan and M.J. Ablowitz, A Method of Solution for Painlevé Equations: Painlevé IV, V, Physica D, **30**, 247-283 (1988).

41. A.S. Fokas and P.M. Santini, Bi-Hamiltonian Formulation of the Kadomtsev- Petviashvili and Benjamin-Ono Equations, J. Math. Phys., **29**, 604-617 (1988).

42. E. Barouch, A.S. Fokas, and V. Papageorgiou, The Bi-Hamiltonian Formulation of the Landau-Lifshitz Equation, J. of Math. Phys., **29**, 2628-2633 (1988).

43. P. Clarkson, A.S. Fokas and M.J. Ablowitz, Hodograph Transformations of Linearizable Partial Differential Equations, SIAM J. Appl. Math., **49**, 1188-1209 (1989).

44. A.S. Fokas: An Initial-Boundary Value Problems for the Nonlinear Schrödinger Equations, Physica D, **35**, 167-185 (1989).

45. T.S. Papatheodorou and A.S. Fokas, Evolution Theory, Periodic Particles and Solitons, Stud. in Appl. Math., **80**, 165-182 (1989).

46. A.S. Fokas, E. Papadopoulou, Y. Saridakis and M.J. Ablowitz, Interaction of Simple Particles in Soliton Cellular Automata, Stud. Appl. Math., **81**, 153-180 (1989).

47. A.S. Fokas and M.J. Ablowitz, Forced Nonlinear Evolution Equations and the Inverse Scattering Transform, Stud. Appl. Math., **80**, 253-272 (1989).

48. A.S. Fokas and P.M. Santini, Coherent Structures in Multidimensions, Phys. Rev. Lett., **63**, 1379 (1989).

49. A.S. Fokas, E. Papadopoulou and Y. Saridakis, Particles in Soliton Cellular Automata, Complex Systems, **3**, 615-633 (1989).

50. A.S. Fokas and P.M. Santini, Dromions and a Boundary Value Problem for the Davey-Stewartson I Equation, Physica D, **44**, 99-130 (1990).

51. A.S. Fokas, E.P. Papadopoulou and Y.G. Saridakis, Soliton Cellular Automata, Physica D, **41**, 297-321 (1990).

52. A.S. Fokas, E.P. Papadopoulou and Y.G. Saridakis, Coherent Structures in Cellular Automata, Phys. Lett. A, **147**, 369-379 (1990).

53. A.S. Fokas and S.V. Manakov, The Dressing Method, Symmetries, and Invariant Solutions, Phys. Lett. A, **150**, 369-374 (1990).

54. A.R. Its, A.V. Kitaev and A.S. Fokas, Isomonodromic Approach in the Theory of 2D Quantum Gravity, in Usp. Math. Nauk, **45**, 135-136 (1990).

55. L.Y. Sung and A.S. Fokas, Inverse Problem of $N \times N$ Hyperbolic Systems on the Plane and the N-wave Interactions, Comm. Pure Appl. Math. **44** 535-571 (1991).

56. A.S. Fokas, J.B. Keller and B.D. Clarkson, Mathematical Models of Granulocypopoiesis and Chronic Myelogenous Leukemic, Cancer Research, **51**, 2084-2091 (1991).

57. L.-Y. Sung and A.S. Fokas, Inverse Problems in Multidimensions, SIAM J. of Math. Anal. **22**, 1303-1331 (1991).

58. A.S. Fokas, A.R. Its and A.V. Kitaev, Discrete Painleve Equations and Their Appearance to Quantum Gravity, Comm. in Math. Phys., **142**, 313-343 (1991).

59. A.S. Fokas and R.G. Novikov, Discrete Analogues of $\bar{\partial}$-Equation and of Radon Transform, C.R. Acad. Sci., Paris, **313**, 75-80 (1991).

60. A.R. Its, A.V. Kitaev and A.S. Fokas, Matrix Models of Two-Dimensional Quantum Gravity and Isomonodromy Solutions of Discrete Painlevé Equations, Zapiski Nauchn. Semin. LOMI, **187**, 3-29 (1991).

61. A.S. Fokas and V. Zakharov, The Dressing Method and Nonlocal Riemann-Hilbert Problems, Journal of Nonlinear Science, **2**, 109-134 (1992).

62. A.S. Fokas and Xin Zhou, On the Solvability of Painleve II and IV, Comm. in Math. Phys., **144**, 601-622 (1992).

63. U. Mugan and A.S. Fokas, Schlesinger Transformations of Painlevé II-V, J. Math. Phys., **33**, 2031-2045 (1992).

64. I.Ya Dorfman and A.S. Fokas, Hamiltonian Theory Over Non-Commutative Rings and Integrability in Multidimensions, J. Math. Phys., **33**, 2504-2514 (1992).

65. A.S. Fokas, U. Mugan and Xin Zhou, On the Solvability of Painlevé I, III, and V, Inverse Problems, **8**, 757-785 (1992).

66. A.S. Fokas, A.R. Its and A.V. Kitaev, The Isomonodromy Approach to Matrix Models in 2D Quantum Gravity, Comm. Math. Phys., **147**, 395-430 (1992).

67. A.S. Fokas and A.R. Its, Soliton Generation for Initial-boundary Value Problems, Phys. Rev. Lett., **25**, 3117-3120 (1992).

68. A.S. Fokas and L.Y. Sung, On the Solvability of the N-Wave, the Davey-Stewartson and the Kadomtsev-Petviashvili Equation, Inverse Problems, **8**, 673-708 (1992).

69. A.S. Fokas and A.R. Its, An Initial-Boundary Value Problem for the Sine-Gordon Equation in Laboratory Coordinates, Theor. and Math. Physics, **92**, 388-403 (1992).

70. A.S. Fokas and H.R. Madala, Emerging Patterns and Computational Design of Filter Cellular Automata, Complex Systems, **7**, 389-413 (1993).

71. A.S. Fokas, B. Grammaticos and A. Ramani, From Continuous to Discrete Painleve Equations, J. Math. Anal. and Appl., **180**, 342-360 (1993).

72. A.S. Fokas, A.R. Its and V.Yu Novokshenov, The Nonlinear Schrödinger with a Forcing of a Distribution Type, Stud. Appl. Math. **92**, 97-114 (1994).

73. A.S. Fokas and A.R. Its, An Initial-Boundary Value Problem for the KdV Equation, Mathematics and Computers in Simulation, **37**, 293-321 (1994).

74. B.A. Dubrovin, A.S. Fokas and P.M. Santini, Integrable Functional Equations and Algebraic Geometry, Duke Mathematical Journal **76**, 645-668 (1994).

75. A.S. Fokas and Q.M. Liu, Generalized Conditional Symmetries and Exact Solutions of Non Integrable Equations, Theor. and Math. Physics, **99**, 263-278 (1994).

76. A.S. Fokas and I.M. Gel'fand, Quadratic Poisson Algebras and Their Infinite Dimensional Generalization, J. of Math. Physics, **35**, 3117-3131 (1994).

77. A.S. Fokas and I.M. Gel'fand, Integrability of Linear and Nonlinear Evolution Equations, and the Associated Nonlinear Fourier Transforms, Lett. Math. Physics, **32**, 189-210 (1994).

78. A.R. Its, A.S. Fokas and A.A. Kapaev, On the Asymptotic Analysis of the Painlevé Equations Via the Isomonodromy Method, Nonlinearity, **7**, 1291-1325 (1994).

79. A.S. Fokas, On the Simplest Integrable Equation in $2+1$, Inverse Problems, **10**, 19-22 (1994).

80. A.S. Fokas and Q.M. Liu, Nonlinear Interaction of Traveling Waves of Nonintegrable Equations, Phys. Rev. Lett, **72**, 3243-3296 (1994).

81. A.S. Fokas, On a Class of Physically Important Integrable Equations. The Nonlinear Schrödinger Equation, Physica, **87D**, 145-150 (1995).

82. A.S. Fokas, The Korteweg-deVries Equation and Beyond, Acta Applicandae Mathematicae, **39**, 295-305 (1995).

83. A.S. Fokas and A.R. Its, The Linearization of the Initial-Boundary Value Problem of the Nonlinear Schrödingers Equation, SIAM J. of Math. Anal., **27**, 738-764 (1996).

84. A.S. Fokas, R.H.J. Grimshaw and D.E. Pelinovsky. On the Asymptotic Integrability of a Higher-Order Evolution Equation Describing Internal Waves in a Deep Fluid, J. Maths. Phys., **37**, 3415-3421 (1996).

85. A.S. Fokas and I.M. Gelfand, Surfaces on Lie Groups, on Lie Algebras, and their Integrability, Comm. Math. Phys., **177**, 203 (1996).

86. Q.M. Liu and A.S. Fokas, Exact Interaction of Solitary Waves for Certain Non-Integrable Equations, J. Math. Phys., **37**, 324-345 (1996).

87. A.S. Fokas and T. Bountis, Order and the Ubiquitous Occurrence of Chaos, Physica A, **228**, 236-244 (1996).

88. A.S. Fokas and Q.M. Liu, Asymptotic Integrability of Water Waves, Phys. Rev. Lett., **77**, 2347-2351 (1996).

89. A.S. Fokas, I.M. Gel'fand and Y. Kurylev, Inversion Method for Magnetoencephalography, Inverse Problems, **12**, 9-11 (1996).

90. A.S. Fokas, A Unified Transform Method for Solving Linear and Certain Nonlinear PDE's. Proc. R. Soc. Lond. A, **453**, 1411-1443 (1997).

91. A.S. Fokas and Q.M. Liu, Linear Superpositions in Nonlinear Wave Equations, Methods and Applications of Analysis, **4**, 156-161 (1997).

92. A.S. Fokas and B. Pelloni, The Solution of Certain IBV Problems for the Linearized KdV Equation, Proc. R. Soc. Lond. A, **454**, 645-657 (1998).

93. A.S. Fokas and S. Tanveer, A Hele-Shaw Problem and the Second Painlevé Transcendent, Math. Proc. Camb. Phil. Soc. **124**, 169-191 (1998).

94. A.S. Fokas, Lax Pairs and a New Spectral Method for Linear and Integrable Nonlinear PDE's, Selecta Mathematica, **4**, 31-68 (1998).

95. A.S. Fokas and L.Y. Sung, The Inverse Spectral Method for KPI Without the Zero Mass Constraint, Math. Proc. Camb. Phil. Soc. **125**, 113-138 (1999).

96. A.S. Fokas and C. Menyuk, Integrability and Similarity in Transient Stimulated Raman Scattering, J. Nonl. Sci. **9**, 1-31 (1999).

97. A.S. Fokas, L.Y. Sung and D. Tsoubelis, The Inverse Spectral Method for Colliding Gravitational Waves, Math. Phys. Anal. and Geom. **1**, 313-330 (1999).

98. J.D. Gibbon, A.S. Fokas and C.R. Doering, Dynamically Stretched Vortices as Solutions of the Navier-Stokes Equations, Physica D **132**, 497-510, (1999).

99. D. ben-Avraham and A.S. Fokas, The Solution of the Modified Helmholtz Equation in a Wedge and an Application to Diffusion-Limited Coalescence, Phys. Lett. A **263**, 355-359 (1999).

100. A.S. Fokas and L. Luo, Global Solutions and their Asymptotic Behaviour for Benjamin-Ono-Burgers Type equations, Diff. and Int. Eqs. **13**, 115-224 (2000).

101. A.S. Fokas and B. Pelloni, Integral Transforms, Spectral Representation and the d-bar Problem, Proc. R. Soc. Lond. A **456**, 805-833 (2000).

102. Ö. Ceyhan, A.S. Fokas and M. Gürses, Deformations of Surfaces Associated with Integrable Gauss-Mainardi-Codazzi Equations, J. of Math. Phys **41**, 2251-2270 (2000).

103. A.S. Fokas and B. Pelloni, A Method of Solving Moving Boundary Value Problems for Linear Evolution Equations, Phys. Rev. Lett. **84**, 4785-4789 (2000).

104. A.S. Fokas and A.A. Kapaev, A Riemann-Hilbert approach to the Laplace equation, J. Math. Anal. and Appl. **251**, 770-804 (2000).

105. A.S. Fokas, On the Integrability of Linear and Nonlinear PDEs, J. Math. Phys. **41**, 4188-4237 (2000).

106. A.S. Fokas and T.A. Ioannidou, The Inverse Spectral Theory for the Ward Equation and for the $2+1$ Chiral Model, Commun. in Applied Anal. **5**, 235-246 (2001).

107. A.S. Fokas, I.M. Gelfand, F. Finkel and Q. M. Liu, A Formula for Constructing Infinitely Many Surfaces on Lie Algebras and Integrable Equations, Selecta Mathematica **6**, 1-29 (2001).

108. A.S. Fokas, Two Dimensional Linear PDE's in a Convex Polygon, Proc. R. Soc. Lond. A, **457**, 371-393 (2001).

109. A.S. Fokas, D.E. Pelinovski and C. Sulem, Interaction of Lumps with a Line Soliton for the DSII Equation, Physica D **152-153**, 189-198 (2001).

110. A.S. Fokas and B. Pelloni, Two-point Boundary Value Problems for Linear Evolution Equations, Math. Proc. Camb. Phil. Soc. **131**, 521-543 (2001).

111. A.S. Fokas and B. Pelloni, Integrable evolution equations in time-dependent domains, Inverse Problems **17**, 919-935 (2001).

112. D. ben-Avraham and A.S. Fokas, The Modified Helmholtz Equation in a Triangular Domain and an Application to Diffusion-limited Coalescence, Phys. Rev. E **64**, 016114-6 (2001).

113. A.S. Fokas and C. Rogers, On Initial-Boundary Value Problems for Simultaneous Evolution Equations in Three Dimensions, Stud. in Appl. Math. **107**, 391-401 (2001).

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INVITED TALKS

- Joint IUTAM/IMU Symposium Group Theoretical Methods in Mechanics, August 25-29, 1978, Novosibirsk, U.S.S.R.

- Applications of Lie-Bäcklund Symmetries, UCLA, Los Angeles, January 1979.

- Lie-Bäcklund Operators and Exactly Solvable Evolution Equations, California Institute of Technology, February 1979.

- Workshop on Nonlinear Equations, July 29 - August 10, 1979, Potsdam, New York.

- A Symmetry Approach to Exactly Solvable Evolution Equations, Courant Institute of Mathematical Sciences, February 1980.

- Hereditary Operators and their Applications, Clarkson University, February 1980.

- One-Parameter Families of Solutions of the Sixth Painlevé Equation, University of Georgia, June 1980.

- Workshop on Nonlinear Evolution Equations and Dynamical Systems, July 9-23, 1980, Crete, Greece. Linearization of the Korteweg-deVries and Painlevé II Equation, Clarkson University, May 1981.

- Workshop on Nonlinear Evolution Equations, Soliton and Spectral Methods, Trieste, Italy, August 24-29, 1981.

- Linearization of the Korteweg-deVries and Painlevé II Equations, University of Georgia, October 1981.

- Linearization of the Korteweg-deVries and Painlevé II Equations, Courant Institute of Mathematical Sciences, New York University, November 1981.

- Linearization of the Korteweg-deVries and Painlevé II Equations, Princeton University, November 1981.

- Linearizations of Korteweg-deVries, Painlevé II and Benjamin-Ono Equation, California Institute of Technology, December 1981.

- Workshop on Mathematical Methods in Hydrodynamics and Integrability in Related Dynamical Systems, La Jolla, CA, December 7-9, 1981.

- The Inverse Scattering of the Kadomtsev-Petviashvili Equation, Yale University, March 1982.
- Solitons and the Inverse Scattering Transform in Multidimensions, Massachusetts Institute of Technology, April, 1982.
- Scott Russell Centenary Conference, Edinburgh, Scotland, August 22-27, 1982.
- Twenty-Fifth Annual Meeting of the Society for Natural Philosophy, Cornell University, Ithaca, N.Y., September 22-25, 1982.
- Multidimensional Inverse Scattering Transform, University of Georgia, October 1982.
- The Inverse Scattering Transform in Multidimensions, Stanford University, November, 1982.
- School and Workshop, Nonlinear Phenomena, November 29 - December 17, 1982, Qaxtapec, Mexico, (the author gave a series of five invited lectures).
- Solitons and the Inverse Scattering Transform in Multidimensions, Harvard University, April, 1983.
- Solitons and the Inverse Scattering Transform in Multidimensions, State University of New York at Stony Brook, April, 1983.
- 2nd Workshop on Nonlinear Evolution Equations and Dynamical Systems, Chania, Crete, Greece, August 9-25, 1983.
- 2nd International Workshop on Nonlinear and Turbulent Processes in Physics, Kiev, USSR, October 14-22, 1983.
- AMS SIAM Summer Seminar on Nonlinear Systems of PDE in Applied Mathematics, Los Alamos, July 22 - August 4, 1984.
- 3rd Workshop on Nonlinear Evolution Equations and Dynamical Systems, Galipoli, Italy, June 20 - July 5, 1985.
- Exactly Solvable Nonlinear Equations in Multidimensions, RPI, Troy, October, 1985.
- Nonlinear Evolution Equations, Solitons and the Inverse Scattering Transform, July 27 - August 2, 1986, West Germany.
- The Nonlinear Systems Workshop, University of Montreal, May 5-9, 1986.

- Nonlinear Evolution Equations, Solitons and the IST, Oberwolfach, W. Germany, July 1986.
- Inverse Problems, Montpellier, France, November 1986.
- "Solitons", Winter School, Tiruchirapalli, India, January 1987.
- Aspects of Integrability in One and Several Dimensions, Jawaharlal Nehru University, New Delhi, India, January 1987.
- Recursion Operators in Multidimensions and Nonlinear Schrödinger Equation on the Semi-Line, Kiev, USSR, April 13-25, 1987.
- IST on Half-Line, Pennsylvania State University, May 18, 1987.
- Inverse Scattering in Multidimension, Stanford University, October 1987.
- International School on Applied Mathematics, Symmetries and Nonlinear Phenomena, Paipa, Colombia, February 1988.
- Recent Developments in Soliton Theory, University of Arizona, April 1988.
- Recent Developments in Soliton Theory, Department of Applied Mathematics, California Institute of Technology, May 1988.
- "Nonlinear Phenomena", Ile D'Oleron, France, June 20-24, 1988.
- Solitons in Cellular Automata, University of Rome, Italy, July 1988.
- Nonlinear Evolution Equations, Integrability and Spectral Methods, Lake Como, Italy, July 4-15, 1988.
- Nearly Integrable Systems and Applications, Institute for Mathematics and its Applications, University of Minnesota, Minneapolis, September 12-16, 1988.
- New Manifestations of Solitons, Workshop on Solitons in Nonlinear Optics and Plasma Physics, November 7-11, 1988.
- Solitons and Cellular Automata, Columbia University, November 1988.
- The Integrability of the Davey-Stewartson Equation, University of Pittsburg, November 1988.
- Recent Developments in Soliton Theory, University of Pennsylvania State, November 1988.

- Multidimensional Solitons, University of Buffalo, February 1989.
- Coherent Structures in Cellular Automata, Technical University of Istanbul, Turkey, April 1989.
- Symmetries and Integrability, Research Institute for Basic Sciences, Kocaeli, Turkey, April 1989.
- New Manifestations of Coherent Structures, 5th International Conference on Solitons, Crete, Greece, July 1989.
- Coherent Structures in Multidimensions and in Cellular Automata, Courant Institute of Mathematical Sciences, September 1989.
- Integrability and Coherent Structures in Multidimensions, Yale University, October 1989.
- Coherent Structures and Integrability, IV International Workshop on Nonlinear and Turbulent Processes in Physics, Kiev, October 1989.
- Dromions in Multidimensions, University of Arizona, Tucson, March 1990.
- New Coherent Structures, UCLA, March 1990.
- 6th International Workshop on Nonlinear Evolution Equations and Dynamical Systems, NEEDS '90, Dubna, USSR, July 16-26, 1990.
- NATO Workshop on Painlevé Equations, Sainte-Adéle (Quebec), September 3-7, 1990.
- Recent Developments in Soliton Theory and the Role of Integrability in 2D Quantum Gravity, Rutgers University, February 1991.
- Continuous and Discrete Painlevé Equations and their Appearance in 2D Quantum Gravity, Princeton University, February 1991.
- Continuous and Discrete Painlevé Equations, Georgia Institute of Technology, March 1991.
- Continuous and Discrete Painlevé Equations, Duke University, March 1991.
- Dromions and the Davey Stewartson Equation, NSF-CBMS Conference on "Nonlinear Dispersive Wave Systems", Orlando, Florida, March 11-15, 1991.
- Similarity Solutions of Differential Equations, University of Pittsburgh, April 26-28, 1991.
- 7th Workshop in Nonlinear Evolution Equations and Dynamical Systems, Galipoli, Italy, June 1991.

- 2D Quantum Gravity and Painlevé Equations, University of Rome, Italy, June 1991.
- The d-bar Method, University of Rutgers, December 1991.
- Initial-Boundary Value Problems for Integrable Equations, University of Yale, April 7, 1992.
- Integrability, New Jersey Institute of Technology, April 8, 1992.
- An Initial Boundary-Value Problem for the KdV Equation, Exeter, England, November 1992.
- Initial Boundary-Value Problems, 2D Quantum Gravity, Integrable Functional Equations, Euler Institute, St. Petersburg, Russia, November 1992.
- Initial Boundary Value Problem for Dispersive Systems, 1992-1993 Mathematics Colloquium Series, University of Central Florida, in memory of Professor Edward Norman, April 12, 1993.
- Integrability and Beyond, 10th Workshop in Nonlinear Evolution Equations and Dynamical Systems, Galipoli, Italy, September 1993.
- Applications of the Half-Line Problem of the NLS Equation to Nonlinear Optics, Nonlinear Optics, University of Arizona, September 1993.
- Participation in "Functional Analysis on the Eve of the Twenty-First Century", Rutgers University, October 24-27 1993.
- Integrability and Beyond, University of Glasgow, U.K. November 1993.
- Initial-Boundary Value Problems, Workshop on Integrable Systems, University of Leeds, U.K. November 1993.
- The Nonlinear Schrödinger on the half-line, Duke, January 1994.
- Chaos, Magnetoencephalography, Duke, January 1994.
- Initial-Boundary Value Problems for Soliton Equations, Oxford University January 31st, 1994.
- The Isomonodrony Approach to 2D Quantum Gravity, Oxford University, February 1st, 1994.
- Integrability and Chaos, Imperial College, London, February 2nd 1994.
- Integrability, Non Integrability and Chaos, University of Leeds, February 7, 1994.

- Chaos and Anti-Chaos, University of Warwick, February 16, 1994.
- Integrable Equations on the half line, University of Nantes, France, 19 May 1994.
- Taxis and Chaos, Poincare Institute, France, 20 May 1994.
- Integrability and Chaos, University of Manchester, June 1, 1994.
- Integrability and beyond, Technical University of Berlin, Germany, June 17, 1994.
- A Unified Approach to Solving Linear and Nonlinear Equations, University of Patras, Greece, June 1994.
- Peakons and Compactons, University of Arizona (conf. of Airforce), October 1994.
- Review of Integrable Systems, University of Purdue at Indianapolis, October 1994.
- Computerized Tomography and Magnetoencephalography, Clarkson University, November 1994.
- A New Class of Physically Important Integrable Equations, Montpellier, France, February 1995.
- Asymptotic Integrability, University of Leeds, March 1995.
- A New Class of Physically Important Integrable Equations, University of Kent, March 1995.
- 2-dimensional Quantum Gravity, Painlevé Equations and WKB, Newton Institute, University of Cambridge, March 1995.
- Magnetoencephalography, University of Patras, Greece, April 1995.
- Spectral Theory, Integrability, and Chaos, Newton Institute, University of Cambridge, April 1995.
- KdV and Beyond, Amsterdam, April 1995.
- Asymptotic Integrability, Luminy, France, May 15-19, 1995.
- Integrable Algebraic Equations and Algebraic Geometry, Paris VI, France, May 1995.
- Water waves, Multidimensional Diffraction and the Complex Plane, France, Paris IV, Paris, May 1995.
- Integrability and Inverse Problems Arising in Medicine, Imperial College, London, June 1995.

- On a New Class of Physically Important Integrable Equations, Conference on Nonlinear Waves, Hokaido University, Sapporo, Japan, July 1995.

- Curves, Surfaces, and their Evolution, Department of Physics, Tokyo University, Japan, July 24, 1995.

- Symmetries, their Generalization, and Asymptotic Integrability, Department of Mathematics, Tokyo University, Japan, July 24, 1995.

- Inverse Problems Arising in Medicine, Ryukoku University, Kyoto, Japan, July 25, 1995.

- Integrability Versus Chaos, RIMS, University of Kyoto, Japan, July 26, 1995.

- Integrability and Magnetoencephalography, Conference for the 70th birthday of M. Kruskal, University of Colorado at Boulder, USA, August 3, 1995.

- Asymptotic Integrability, Nonlinear Optics Workshop, University of Arizona, 1-3 October, 1995.

- Initial-Boundary Value Probllems for Certain Physical Nonlinear Equations, University of Bath, UK, February 23, 1996.

- The Effective Solution of Certain Nonlinear IBV Problems, University of Edinborough, UK, March 8, 1996.

- IBV Problems for Linear and Nonlinear Equations, University of Ohio, USA, April 1, 1996.

- A Unified Method for Solving Linear and Certain Nonlinear Equations, Loughborough University of Technology, UK, April 26, 1996.

- IBV Problems for Linear and Nonlinear Equations, University of Bristol, UK, May 9, 1996.

- Three Lectures on Painlevé Equations, in the Workshop on the Theory of Nonlinear Special Functions, University of Montreal, Canada, May 13-18, 1996.

- Lax Pairs and Integrability, in Recent Advances in PDE's and Applications (in honor of P.D. Lax and L. Nirenberg), Venice, Italy, June 10-14, 1996.

- IBV Problems for Discrete Integrable Equations, in Symmetries and Integrability of Discrete Equations, University of Kent, UK, July 1-6, 1996.

- Integrability of IBV Problems, in Second World Congress of Nonlinear Analysis, Athens, Greece, July 10-17, 1996.
- Integrability, in Ninth Summer Workshop on Complexity and Chaotic Dynamics, Patras, Greece, July 22- Aug. 2, 1996.
- A Unified Approach to Integrability, Princeton University, USA, October 3, 1996.
- A Unified Transform Method for Solving PDE's in Two Variables, MIT, USA, October 8, 1996.
- Recent Applications of the Painlevé Equations, University of Leeds, UK, February 21, 1997.
- Integrability: Fourier Transforms and Beyond, Imperial College, UK, February 27, 1997.
- Inverse Problems and the DBAR Method, Loughborough University of Technology, March 10, 1997.
- A New Spectral Method for Solving Linear and Certain Nonlinear PDE's, University of Illinois at Urbana, April 8, 1997.
- Integrability: From d'Alembert to Lax, IUPUI, April 10, 1997.
- From d'Alembert to Lax, University of Sussex, May 21, 1997.
- A Unification of Integrability, I. Newton Institute, Cambridge, June 2, 1997.
- A New Method for Solving IBV Problems, University of Amsterdam, June 12, 1997.
- The Spectral Method for Colliding Gravitational Waves, Oxford University, June 17, 1997.
- A New Method for Solving IBV Problems, in NEED's Conference, Crete, Greece, June 27, 1997.
- Three lectures on Integrability in the Conference on Nonlinear Dispersive Waves, Anogia, Greece, June 30 - July 5, 1997.
- Inverse Problems in Medicine, Democritos Laboratories, Athens, Greece, July 7, 1997.
- Open Problems in Integrable Systems, Loughborough University, UK, November 29, 1997.
- The Ehrenpreis Principle for Nonlinear Integrable Equations, Paris VI, January 24, 1998.
- Nonlinear PDE's in Arbitrary Domains, University of Warwick, February 13, 1998.
- Integrability and Spectral Theory, Imperial College, London, March 5, 1998.

- Linear and Integrable Nonlinear PDE's in Arbitrary Domains, King's College, London, May 12, 1998.
- Linear and Integrable Nonlinear PDE's in Arbitrary Domains, Department of Theoretical Mechanics, University of Nottingham, May 20, 1998.
- The Constructive Implementation and the Nonlinearization of the Ehrenpreis Principle, Integrable Systems, Guardamar, Spain, June 15-20, 1998.
- Integral Transforms, Spectral Theory and the d-bar Problem, NEEDS, Leeds, UK, June 21-28, 1998.
- The synthesis of Separation of Variables, Brown University, USA, March 29, 1999.
- A New Spectral Method for Boundary Value Problems, California Institute of Technology, USA, April 5, 1999.
- Integrability and the Ehrenpreis Principle, University of California at Irvine, USA, April 6, 1999.
- A Synthesis of Separation of Variables for Linear and for Integrable nonlinear PDE's, Mathematical Science Research Institute, Berkeley, USA, April 8, 1999.
- Boundary Value Problems, University College, UK, April 1999.
- Boundary Value Problems, the Ehrenpreis Principle and Lax pairs, Oxford University, UK, May 10, 1999.
- Mastersymmetries and Asymptotic Integrability, ICMS, Edinburgh, UK, June 2, 1999.
- A Formula for Constructing Infinitely Many Surfaces, Halifax, Canada, June 13, 1999.
- Boundary Value Problems, the Eherenpreis Principle and Lax pairs, Cambridge University, UK, June 15, 1999.
- A transform method for boundary value problems for integrable PDE's, ICIAM99, Edinburgh, July 5, 1999.
- Boundary Value Problems for Integrable PDEs, University of Paris VII, France, February 9, 2000.
- Spectral Theory and Nonlinear PDEs, Heriot-Watt University, UK, March 3, 2000.
- The Interaction of Lumps and Line Solitons in Multidimensions, University of Leeds, UK, March 10, 2000.

- Fuchsian Equations, Painlevé Equations and the Riemann-Hilbert Problem, Imperial College, UK, May 5, 2000.
- Differential Forms and Integrability, Montpellier, France, June 21, 2000.
- The Painlevé Equations and an Application to the Hele-Shaw Problem, University of New South Wales, Australia, June 29, 2000.
- Boundary Value Problems for Linear and For Integrable Nonlinear PDE's, Annual Meeting of the Australian Mathematical Society, Brisbane, Australia, July 2, 2000.
- Lumps and Line Solitons, U. of Queensland, Brisbane, Australia, July 3, 2000.
- A New Approach for Solving Boundary Value Problems, Hania, Greece, July 25, 2000.
- Boundary Value Problems for Linear and Nonlinear PDEs, Northwestern University, USA, Nov 30, 2000.
- Differential Forms, Spectral Theory and Boundary Value Problems, Duke University, USA, April 2001
- Differential Forms and Integrability, Stanford University, USA, April 13, 2001
- Differential Forms and Integrability, University of Kent, UK, May 11, 2001
- Differential Forms, Spectral Theory and Boundary Value Problems, Paris VI, France, May 14, 2001.
- Differential Forms, Spectral Theory and Boundary Value Problems, Bath University, UK, June 6, 2001
- Boundary Value Problems in Two Dimensions, conference "The legacy of IST", June 17-21, 2001, Mount Holyoke College, Boston, USA
- Differential Forms, Spectral Theory and Boundary Value Problems, Conference for the 60th birthday of C. Dafermos, Heraklion, Greece, June 22-24, 2001.
- Differential Forms, Spectral Theory and Boundary Value Problems, The Naylor Lecture, London Mathematical Society, London, November 23, 2001
- Some Remarks on Applied Mathematics and the Imaging of the Brain, Annual Meeting of the Greek Mathematical Society, Rhodes, Greece, November 25, 2001

- Mastersymmetries, ICMS, Edinburgh, December 6, 2001
- Differential Forms, Spectral Theory and Boundary Value Problems, I. Newton Institute, Cambridge, December 17, 2001
- A New Method for Boundary Value Problems, Inauguration of the Nonlinear Institute, Loughborough University, UK, February 8, 2002
- Integrability, University of Sussex, UK, February 27, 2002
- The Impact of Mathematics on the Imaging of the Brain, Metsovo, Greece, 1-3 March, 2002
- Integrability: Riemann-Hilbert and d-bar Problems, What is Next?, University of Oxford, May 12, 2002
- Integrability: Riemann-Hilbert and d-bar Problems, What is Next?, Mathematical Physics Colloquium, University of Cambridge, May 31, 2002
- A New Method for Boundary Value Problems, Conference on PDEs, Lund, Sweden, May 22-24, 2002
- Differential Forms, Spectral Theory and Boundary Value Problems, "Nonlinear Models in Physics", Madrid, Spain, June 7-8, 2002
- A New Generalised Fourier Transform and its Nonlinear Analogues, Conference on Differential Equations, Patras, Greece, July 1-5, 2002
- On a Long-standing Open Problem: the Attenuated Radon Transform, Conference on Chaos and Dynamical Systems, Patras, Greece, August 19-30, 2002
- Boundary Value Problems for Integrable PDEs, Courant Institute, New York, USA, October 1, 2002
- Boundary Value Problems for Integrable PDEs, University of South Carolina, Columbia, USA, October 25, 2002
- Integrability, Imaging of the Brain and Beyond, Third Mediterranean Conference in Mathematical Education, Athens, Greece, January 2003.
- Integrability, Imaging of the Brain and BVPs, The Bristol Mathematical Colloquium, University of Bristol, UK, March 7, 2003.

- Integrable Nonlinear PDEs on the Half-Line, Colloquium in Honour of H. McKean, Paris, France, April 3, 2003.

- Boundary Value Problems for Integrable PDEs, Third IMACS International Conference, University of Athens, Georgia, USA, April 8, 2003.

- Boundary Value Problems for Integrable PDEs, University of Cardiff, UK, April 30, 2003.

- Integrability, Imaging of the Brain and Complex Variables, Conference on Differential and Functional Equations in the Complex Domain, Loughbrough University, UK, June 29, 2003.

- A New Method for Boundary Value Problems, Sixth International Workshop on Mathematical Methods in Scattering Theory and Biomedical Engineering, Tsepelovo, Greece, September 19, 2003.

- Integrability, Imaging of the Brain and BVPs, HERCMA, Athens, Greece, September 25, 2003.

- The Impact of Integrability on the Imaging of the Brain, University of Leeds, UK, October 16, 2003.

- Complex Analysis and Inverse Spectral Method in Boundary-Value Problems, A four Lectures Mini-course at the Poincare Institute, France, November 2003.

- Mathematical Aspects of Medical Imaging, IUPUI, USA, November 2003.

- Generalised Fourier Transforms and Boundary-Value Problems, Poincare Institute, France, December 18, 2003.

- Generalised Fourier Transforms, their Nonlinearisation and Imaging of the Brain, Center of Mathematical Sciences Colloquium, University of Cambridge, UK, March 8, 2004.

- Coherent Structures in Multidimensions, British Applied Mathematics Colloquium, April 19, 2004.

- Coherent Strustures in Multidimensions, IUPUI, USA, April 28, 2004.

- Generalised Fourier Transforms, their Nonlinearisation and Imaging of the Brain, Paris VII, France, May 18, 2004.

- MEG and SPECT, Imperial College, UK, June 16, 2004.

- ¿From Tschebysheff and Hermite Polynomials to Functional Brain Imaging and Quantum Gravity: A Riemann-Hilbert and d-bar Approach, International Workshop on Orthogonal Polynomials, University Carles III de Madrit, Spain, July 5, 2004.

- Mathematics and the Search of Truth, opening address at the 45th International Mathematical Olympiad, Athens, Greece, July 11, 2004.
- Mathematical Problems in Medical Imaging, Complexity in Science and Society, University of Patras, July 18, 2004.
- Medical Imaging, A five lectures Minicourse, Clarkson University, USA, September 2004
- Integrability in Multidimensions and Imaging of the Brain, Tenth Panhellenic Conference on Mathematical Analysis, Technical University of Athens, September 30, 2004.
- Single Photon Emission Computer Tomography, Magnetoencephalography, and Protein Folding, Conference for the Retirement of J. Papadakis, University of Crete, Greece, November 6, 2004.
- Integrability in Multidimensions, Sir R. Penrose Residence, UK, December 8, 2004.
- Single Photon Emission Computer Tomography, Magnetoencephalography, and Protein Folding, Cambridge Computational Biology Institute, University of Cambridge, UK, November 18, 2005.
- A New Method for Boundary Value Problems, National Technical University of Athens, Greece, December 17, 2005.
- Water Waves and Integrability in Multidimensions, Fluid Mechanics Colloquium, University of Cambridge, UK, January 2005.
- Imaging of the Brain and Integrability in Multidimensions, University of Berkeley, USA, February 2, 2005.
- The Inversion of the Attenuated Radon Transform, University of Rutgers, USA, February 13, 2005.
- Research and Technology, Megaron (the Athens Concert Hall), Greece, February 28, 2005.
- The Impact of Mathematics on Medical Imaging, Aretaion Hospital, University of Athens, Greece, March 22, 2005.
- Mathematics and the Imaging of the Brain, Astrophysical Society of Western Greece, Greece, March 26, 2005.
- Mathematics and the Search for Truth, Vikelaia Municipal Library, Greece, March 28, 2005.
- Mathematics, Imaging of the Brain and the Search for Truth, Oxford University, UK, April 28, 2005.

- New Perspectives for Boundary Value Problems and Their Asymptotics, ten lectures as the Principal speaker in an NSF-CBMS Conference, University of Texas - Pan American, USA, May 16-20, 2005.
- Generalized Fourier Transforms, their Nonlinearization and the Imaging of the Brain, Conference on "Computational Methods and Function Theory", University of Joensuu, Finland, June 13-17, 2005.
- The Dbar Formulation, Imaging of the Brain and Integrability in Multidimensions, Conference on "Nonlinear Waves, Integrable Systems and Applications", for the occasion of the 60th birthday of M.J. Ablowitz, University of Colorado, USA, June 4-8, 2005.
- Integrable PDEs and the Inverse Scattering Transform, three lectures at the CMS/EPSRC Short Course on "Nonlinear Wave Phenomena", University of Reading, UK, July 4-9, 2005.
- Integrable Dispersive PDEs, three lectures at the Euroconference "Nonlinear Dispersive Phenomena", Anogia, Greece, July 9-15, 2005.
- Imaging of the Brain, two lectures at the Workshop on "Dynamic Strategies in Education", Delphi, Greece, August 18, 2005.
- The Global Relation and Boundary Value Problems, five lectures delivered at Clarkson University, USA, September 7-14, 2005.
- The analytical Inversion of Integrals Arising in the Imaging of the Brain and in the Dirichlet to Neumann Map, Conference for the 80th birthday of M.D. Kruskal, University of Rutgers, USA, September 15-16, 2005.
- The Dirichlet to Neumann-Map for Linear and Integrable Nonlinear PDEs, Conference on "Riemann-Hilbert Problems Integrability and Asymptotics", SISSA, Italy, September 20-25, 2005.
- Imaging of the Brain and the Dirichlet to Neumann Map for Bi-Hamiltonian Systems, Conference on "The Legacy of W.R. Hamilton", Royal Irish Academy, Ireland, September 30, 2005.
- Mathematics and the Brain, Inaugural address at the Academy of Athens, Greece, October 25, 2005.
- Meritocracy and Science in Ancient Greece, in the Presentation of the book of Minister Dukas, Grande Bretagne, Athens, November 12, 2005.
- Generalised Fourier Transforms, Dirichlet to Neumann Maps and the Imaging of the Brain, SIAM Invited Address at the Annual meeting of AMS and MAA, San Antonio, USA, January 2006.

- New Transform Methods for Linear and Nonlinear PDEs, March 13, 2006.
- Mathematics abd the Brain, Athens Concert Hall (Megaron), March 31, 2006.
- The Impact of Mathematics on Medicine, Aretaiion Hospital, Athens, April 2006.
- Nonlinear Fourier Transforms and the Imaging of the Brain, Zurich Colloquium in Mathematics, University of Zurich, May 2, 2006.
- The Impact of Mathematics in Medicine, Annual Medical Meeting of Greece, Larissa, May 6, 2006.
- A new Formulation of Water Waves, Conference on Frontiers in Applied and Computational Mathematics, NJIT, May 15-16, 2006.
- The Dbar Method, Imaging and integrability in 3+1 and 4+2, Conference on Integrable Systems, Random Matrices, and Applications in Honor of the 60th birthday of Percy Deift, Courant Institute of Mathematical Sciences, New York University, May 22 - 26, 2006.
- Statistics, Research and Responsibility, Athens Concert Hall (Megaron), May 30, 2006.
- Lax pairs: Synthesis rather than separation of variables, Conference in Honour of the 80th birthday of Peter Lax and Louis Nirenberg, Toledo, Spain, June 6-9, 2006.
- Integrable Nonlinear PDEs in 4+2 and 3+1 Dimensions, MASSEE International Congress on Mathematics, Cyprus, May 31-June 4, 2006.
- Mathematics and Imaging of the Brain, Ceremony for the Bodossaki Prize, Athens, July 14, 2006.
- The Process and Implications of a Mathematical Discovery, Conference of Thales and Friends Mathematical Society, Athens, June 16, 2006.
- Imaging of the Brain, Boundary Value Problems and Integrability in 4+2 and 3+1 Dimensions, International Workshop on Nonlinear Physics, Galipoli, Italy, June 23-July 1, 2006.
- A New Formulation of Water Waves, 2nd Interdisciplinary Symposium on Mathematical Modeling in Modern Technologies and Economics, National Technical University of Athens, September 1-5, 2006.
- The Global Relation and Water Waves, Conference on Scattering Theory and Related Problems in Honor of the 60th birthday of G Dassios, University of Patras, September 2, 2006.

- Inverse Problems and Intergrability for Linear and Nonlinear PDEs, International Conference on Modern Mathematical Methods in Science, Paros, Greece, September 7-9, 2006

- Riemann-Hilbert problems and Painlevé equations, Two lectures at the Isaac Newton Institute for Mathematical Sciences, University of Cambridge, September 14 and 15, 2006.

- Education and Basic Sciences, Conference Organised by the Moraitis School, Athens, November 3, 2006.

MEMBERSHIPS

American Mathematical Association

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