

CURRICULUM VITAE

<i>NAME</i>	George Dassios
<i>TITLE</i>	Professor of Applied Mathematics
<i>DATE OF BIRTH</i>	22 January 1946
<i>CITIZENSHIP</i>	Greek
<i>MARITAL STATUS</i>	Married to Eleni Apostolatou Two boys, Constantine (1973) and Theodore (1976)
<i>PROFESSIONAL ADDRESS</i>	Division of Applied Mathematics Department of Chemical Engineering University of Patras GR 265 04 Patras, GREECE Tel + + 30 2610 969 580 + + 30 2610 969 579 + + 30 2610 969 581 Mobile + + 30 6982 922 554 Fax + + 30 2610 910 678 E-Mail : gdassios@chemeng.upatras.gr gdassios@iceht.forth.gr gdassios@otenet.gr
<i>AND</i>	Research Institute of Chemical Engineering and High Temperature Chemical Processes P.O. Box 1414 GR 265 04 Rion, GREECE
<i>HOME ADDRESS</i>	49 March 25 th str., Kato Kastritsi GR 265 04 Rio GREECE Tel + + 30 2610 990 757 Fax + + 30 2610 910 678

STUDIES

1. Diploma in Mathematics (1970), University of Athens, GREECE
2. Master's of Sciences in Mathematics (1972), University of Illinois at Chicago, U.S.A.
3. Doctor of Philosophy in Mathematics (1975), University of Illinois at Chicago, U.S.A. Thesis advisor: Victor Twersky
4. Habilitation in Mathematics (1980), National Technical University of Athens, GREECE

MAIN POSITIONS

1. 1975-1977 : Lecturer, Department of Mathematics, University of Patras, GREECE
2. 1977-1980 : Lecturer, Department of Mathematics, National Technical University of Athens, GREECE
3. 1980-1981 : Habiliter, Department of Mathematics, National Technical University of Athens, GREECE
4. 1981-1989 : Professor of Applied Mathematics, Department of Mathematics, University of Patras, GREECE
5. 1989-2005 : Professor of Applied Mathematics, Division of Applied Mathematics, Department of Chemical Engineering, University of Patras, GREECE
6. 2005-2008 : Marie Curie Chair of Excellence Holder, in the Department of Applied Mathematics and Theoretical Physics in the University of Cambridge, U.K.
7. 2008-2013 : Professor of Applied Mathematics, Division of Applied Mathematics, Department of Chemical Engineering, University of Patras, GREECE.
8. 2013-today : Professor Emeritus, Department of Chemical Engineering, University of Patras, GREECE.
9. 2017-today : Corresponding Member of The National Academy of Athens.

OTHER POSITIONS

1. 1977 - 1978 : Lecturer, City College of Chicago, Athens Division
2. 1978 - 1979 : Visiting Assistant Professor, Division of Applied Mathematics and Lefschetz Center for Dynamical Systems, Brown University, U.S.A.
3. 1979 - 1980 : Professor of Applied Mathematics, Graduate School of Meteorology, National Office of Meteorology, GREECE
4. 1980 - 1981 : Lecturer, University of Maryland University College, European Division, Athens
5. 1980 - 1996 : Professor of Mathematics, Extended Educational Program for High School Teachers, Greek Ministry of Education, GREECE
6. 1986 - 1987 : Visiting Professor, Department of Mathematics, University of Tennessee at Knoxville, U.S.A.
7. 1987 - today : Member of the Research Institute of Chemical Engineering and High Temperature Chemical Processes, F.O.R.T.H. GREECE
8. Referee for many International Scientific Journals
9. Referee of Research Proposals for the American National Science Foundation, the European Union, and the Greek Secretariat General for Research and Technology.
10. 1990 - today : Member of the Committee Granting the “Xanthopoulos-Pnevmatikos Award” for excellent university teaching.
11. 1993 - 1998 : Panel Member, Greek Representative in the Sensor and Propagation Panel of AGARD
12. 1996 - today : Member of the Scientific Board of the National Center for Sciences
13. 1992 - 1998 : Member of the University Entrance Examination committee for Mathematics.
14. 1999 - 2001 : Director of the Division of Physical Processes and Environment in the Department of Chemical Engineering, University of Patras.
15. 1999 - 2003 and 2007 – 2013 :
Chairman of the University Entrance Examination Committee.
16. 1998 - 2004 : Academic Coordinator for Mathematics for the Hellenic Open University
17. 2001 – 2004 : Member of the University Athletic Committee, University of Patras.
18. 2001 - 2005 : Editor-in-Chief for the Bulletin of the Greek Mathematical Society.

19. 2001 - 2005 : Elected member of the Board of the Greek Mathematical Society.
20. 2002 - 2004 : Member of the Administration Board of the Hellenic Open University
21. 2002 - 2005 : Chairman of the Research Committee of the Hellenic Open University
22. 2002 – 2010 : Member of the Committee on Applied Mathematics of the European Mathematical Society
23. 2004 : Chairman of the Jury Committee of the 45th International Mathematical Olympiad
24. 2011 : Invited to the “Isaac Newton Institute for Mathematical Sciences” of the University of Cambridge, for one month to participate in the workshop dedicated to Inverse Problems.
25. 2010-2013 : President of the Board of the Anargiros and Korialenios School of Spetses.
26. 2014-today : President of the Independent Authority “National Examination Organization” of the Greek Ministry of Education.
27. 2014-today : Member of the Editorial Committee of the journal *Quarterly of Applied Mathematics*.
28. Reviewer for many International Research Journals on Applied Mathematics, Theoretical Physics and Engineering.

RESEARCH AREAS

1. Medical Modeling and Technology
2. Analysis of Mathematical Models in Biosciences and Bioengineering
3. Analytical Methods in Physics and Engineering
4. Wave Propagation and Scattering Theory
5. Partial Differential Equations of Mathematical Physics
6. Ellipsoidal Systems
7. Wave Theory in Acoustics, Electromagnetism, Continuum Mechanics, and General Coupled Fields
8. Inverse Scattering Problems

9. Applications of Inverse Scattering in Pattern Recognition, Robot Vision, Composite Materials, and Geophysics
10. Seismic Wave Propagation
11. Low-Reynolds Number Hydrodynamics
12. Multiple Scattering Theory
13. Theory of Wavelets
14. Mathematical Modeling in Medicine
15. Generalized Transform Theory for Boundary Value Problems
16. The Mathematics of Electroencephalography and Magnetoencephalography.
17. Mathematical models of Tumor Growth.

SCIENTIFIC SOCIETIES

1. American Mathematical Society
2. Society for Industrial and Applied Mathematics
3. Mathematical Association of America
4. Acoustical Society of America
5. European Consortium for Mathematics in Industry
6. International Union of Theoretical and Applied Mechanics
7. International Union of Mathematical Physics
8. Greek Mathematical Society
9. Balkan Union of Mathematicians
10. International Society for the Interaction of Mechanics and Mathematics
11. Institute of Mathematics and its Applications. Since 1992, Fellow of the IMA and Chartered Mathematician in the United Kingdom
12. Association for Research, Technology and Training
13. Hellenic Society of Composite Materials
14. IEEE Member. Antennas and Propagation. Engineering in Medicine and Biology.

INVITED LECTURES

1. Brown University, U.S.A. (1978)
2. University of Bologna, Italy (1985)
3. Ecole Normale Supérieure, France (1986)
4. Clarkson University, U.S.A. (1986)
5. University of Delaware, U.S.A. (1986)
6. University of Tennessee, U.S.A. (1986)
7. Memphis State University, U.S.A. (1987)
8. Georgetown University, U.S.A. (1987)
9. University of Dundee, United Kingdom (1988)
10. University of Oxford, United Kingdom (1988)
11. University of East Anglia, United Kingdom (1988)
12. National Laboratory for Scientific Computation, Brazil (1989)
13. Federal University of Rio de Janeiro, Brazil, (1989)
14. University of Campinas, Brazil (1989)
15. Advanced Institute for Electrical and Mechanical Engineering, Bulgaria (1989)
16. University of Sofia, Bulgaria (1989)
17. University of Tel Aviv, Israel (1994)
18. Series of Lectures. Advanced Course in Wavefield Inversion. International Centre for Mechanical Sciences, Udine, Italy (1998)
19. R.E. Kleinman Memorial Conference, Delaware, USA (1998)
20. CNRS / SUPELEC , Paris, France (2004)
21. Isaac Newton Institute, Cambridge, United Kingdom (2011)

Many more lectures in Universities, Research Institutes, and Scientific Societies in Greece

AWARDS

Fellow of the IMA and Chartered Mathematician in the United Kingdom, since 1992.

Recipient of the 2004 AWARD of the National Academy of Athens for best work in Mathematical Analysis, for the paper “**Magnetoencephalography in Ellipsoidal Geometry**”. (with Fotini Kariotou)

“**Scattering Theory and its Applications**”. International Meeting on the occasion of his 60th year organized by his students in Patras on 01-02.09.2006.

Interview (<http://www.iop.org/EJ/journal/-page=featauth/-author=415/0266-5611/1>) in the electronic site of the Institute of Physics. May 2007.

RESEARCH STUDENTS

1. Kiriaki Kiriakie (Ph.D 1983) "**Low-Frequency Theory of Elastic Waves. Scattering from a Triaxial Ellipsoid**"
2. Kathreptas Nicolaos (Ph.D 1985) "**Scattering Matrix Theory for Thermoelastic Waves**"
3. Athanasiadis Christodoulos (Ph.D 1988) (Co-adviser with K.Kiriaki) "**Mixed Boundary Value Problems in the Low-Frequency Scattering of Electromagnetic Waves**"
4. Kostopoulos Vassilis (Ph.D 1988) "**Scattering of Thermoelastic Waves in Composite Materials and Determination of their Thermomechanical Properties**"
5. Polyzos Demosthenes (Ph.D 1988) (Co-adviser with K.Kiriaki) "**Propagation of Stress Waves in Composite Materials and Determination of their Dynamic Properties**"
6. Zafiropoulos Filareti (Ph.D 1990) "**Asymptotic Behaviour of the Energy of Viscoelastic Waves**"
7. Charalabopoulos Antonios (Ph.D 1992) (Co-adviser with K.Kiriaki) "**Rayleigh Inverse Scattering Via Surface Moments**"
8. Gintides Drossos (Ph.D 1992) (Co-adviser with K.Kiriaki) "**The Problem of Inverse Scattering of Elastic Waves for the Determination of Star-Shape Bodies**"
9. Hadjinicolaou Maria (Ph.D 1993) “**Stokes Flow in Spheroidal Geometry**”
10. Rigou Zafiria (Ph.D 1995) “**Inverse Scattering for Elastic Wave Fields**”
11. Andreou Elias (Ph.D 1995) “**Dissipation Rates and Partition of Energy for the Coupled Magneto-Elastic Problem**”

12. Cakoni Fioralba (Ph.D 1996) (Dissertation submitted to the University of Tirana) **“Some Results on the Abstract Wave Equation Problems of the Scattering Theory in Elasticity and Thermoelasticity in Low-Frequency”**
13. Ergatis Periklis (Ph.D 1997) **“Radiation Propagation and Scattering of Acoustic Waves in Underwater Environment”**
14. Kamvyssas Gregory (Ph.D 1998) **“The Spherical Scatterer in the Presence of a Point Generated Wave Field at Low Frequencies”**
15. Verbis Ioannis (Ph.D 2000) (Co-adviser with D.Polyzos)**“Solutions of Wave Propagation Problems in Composite Materials Based on the Boundary Element Method”**
16. Karveli Katerina (Ph.D 2001) **“Scattering Methods for Spherical Elastic Waves”**
17. Kariotou Fotini (Ph.D 2002) **“Mathematical Problems on the Electromagnetic Activity in the Neurophysiology of the Brain”**
18. Vafeas Panayiotis (Ph.D 2003) **“The Theory of Differential Representations for Stokes Flow”**
19. Giapalaki Sofia (Ph.D 2006) **“Studies of Models in Medical Physics through Solutions of Mathematical Problems in Neurophysiology”**
20. Hadjiloizi Demetra (Ph.D 2009) **“Inverse Problems in the Mathematical Theory of Electro-Magneto-Encephalography”**
21. Doschoris Michalis (Ph.D 2010) **“Generalized Integral Transforms Related to the Theory of Potential and Stokes Flow”**
22. Karadima Katerina (Ph.D 2010) **“Propagation and Scattering of Wave Fields in Anisotropic Media”**
23. Satrazemi Konstantia (Ph.D 2014) **“Electromagnetic Brain Activity and Learning Processes”**
24. Panayiotopoulou Vassiliki (Ph.D 2015) **“Modelling tumour surface perturbation in ellipsoidal coordinates”**
25. Pasiou Niovi (Ph.D 2023) **“Functional Brain Imaging in Ellipsoidal Models”**

Member of the Ph.D examination committee for more than 100 doctorates.

Ph.D EXAMINATION COMMITTEES ABROAD

1. Pelekanos George (Ph.D 1997) **“Direct and Inverse Scattering by an Elastic Inclusion”** Department of Mathematical Sciences, University of Delaware.
2. Perrusson Gaële (Ph.D 1999) **“Caractérisation électromagnétique d’ objets conducteurs enfouis. Application à la prospection géophysique”** Université Versailles-Saint-Quentin-en-Yvelines, UFR de Sciences. Laboratoire des Signaux et Systèmes, CNRS-Supélec-UPS.
3. Zribi Habib (Ph.D 2005) **“Layer Potential Techniques for Sensitivity Analysis”** Center of Applied Mathematics, Ecole Polytechnique
4. Dimakos Michail (Ph.D 2012) **“Linear, Linearizable and Integrable PDEs”** Department of Applied Mathematics and Theoretical Physics, University of Cambridge.
5. Madasu Krishna Prasad (Ph.D 2012) **“Slow Viscous Flow Past Porous Approximate Spherical Particles”** Department of Mathematics, National Institute of Technology, India.

GRANTS

The project: **“New Systems for Early Medical Diagnosis and Biotechnological Applications”** (number 14 below) has been selected, by the European Commission, among the 26 most “Successful Projects Supported by the Structural Funds in Greece”. *Regions in Action* Pamphlet of EU, p.32 (2003).

1. **“Enhanced Oil Recovery, Microdisplacement of Oil in Enhanced Secondary and Tertiary Flooding”** (In collaboration with Payatakes and Sarti) EEC - Stimulation Action Program (1984-1986)
2. **“Scattering and Energy Behavior of Wave Fields in Continuum Mechanics”** (In collaboration with Kiriaki) Greek Department of Research and Technology (1984-1986)
3. **“Inverse Scattering Problems and Applications to the Study of Porous Media”** (In collaboration with Payatakes) Greek Department of Research and Technology (1987-1990)
4. **“Intense Graduate Course on Wave Propagation and Scattering”** EEC - ERASMUS Program (1988)
5. **“Problems in the Propagation and Scattering of Waves by a Free Surface in Continuum Media”** (In collaboration with Athanassoulis and Kiriaki) Greek Department of Research and Technology (1987-1989)

6. **“Direct and Inverse Scattering Problems with Applications to Artificial Intelligence (Robot Vision) and the Study of Composite Materials”** (In collaboration with Howison, Martin, Kostopoulos, Kiriaki and Polyzos) EEC - SCIENCE Program (1988-1991)
7. **“Development of Energy Resources and Protection of the Enviroment”** (In collaboration with Payatakes) EEC Plan for Regional Development (1990-1993)
8. **“Development of Solution Methods for Wave Problems in the See Environment. The Direct and Inverse Problem”** (In collaboration with Papadakis and Athanassoulis) Greek Department of Research and Technology (1990-1995)
9. **“Development of Solution Methods for Inverse Scattering Problems and Applications to Modern Technology”** (In collaboration with Kiriaki) Greek Department of Research and Technology (1991-1993)
10. **“Advanced Educational Program in Modern Technologies”** EEC Plan for Regional Development (1991)
11. **“Wave Propagation and Inversion of Scattering Data with Applications to Multilayer Composite Materials and Multilayer Geophysical Structures”** (In collaboration with Kostopoulos) Greek Department of Research and Technology (1992-1994)
12. **“Wave Propagation and Scattering Theory”** (In collaboration with University of Tirana, Fioralba Cakoni) Community’s Action for Cooperation in Sciences and Technology with Central and Eastern European Countries (1993-1994)
13. **“Propagation of Waves Through Clouds of Particles in the Presence of a Large Rough Surface”** (In collaboration with Prof. Ralph Kleinman, Director of he Institute for the Mathematics of Waves, University of Delaware, USA) AGARD - Sensor and Propagation Panel (1995-1996)
14. **“New Systems for Early Medical Diagnosis and Biotechnological Applications”** (In collaboration with ECON OPTICS, Evangelismos Hospital, NTU of Athens and University of Ioannina) Operational Programme for R+D II (1995-1997)
15. **“Olive-Oil Emulsions”** (In collaboration with ELAIS S.A., A.C. Payatakes) Programme for the Development of Industrial Research, EPET II (1995-1997)
16. **“Inverse Scattering Techniques for Non-Destructive Testing and Remote Sensing”** (In collaboration with I.N. Arnaudov of the Technical University of Sofia, Bulgaria) NATO Collaborative Research Grant (1995-1997)
17. **“Sobolev Inequalities and Nonlinear Partial Differential Equations”** (In collaboration with A. Kotsiolis) Bilateral collaboration between Greece and France, PLATON, No. 96040 (1996-1997)
18. **“Study on the Stability of Cracks in Aeronautical Structures”** (In collaboration with D. Polyzos) Greek Department of Research and Technology (1996-1998)

19. **“Fatigue of Composite Materials. New Nondestructive Techniques for the Determination of the Residual Strength Remaining Life of Composite Structures. Damage Tolerance Design”** (In collaboration with V. Kostopoulos) 32313 Greek Department of Research and Technology (1996-1998)
20. **“Characterisation Electromagnetique Basse-Frequence de Masses Conductrices 3D dans la Terre”** (In collaboration with A. Charalambopoulos and D. Lesselier) Bilateral collaboration between Greece and France, PLATON, No. 97001 (1997-1998)
21. **“Low-Frequency Scattering”** (In collaboration with R. Kleinman) Volkswagen-Stiftung Research in Pairs Program of the Mathematisches Forschungsinstitut Oberwolfach (1997)
22. **“Mathematical Theory of Multiple Scattering in Acoustics Electromagnetics and Elastic Fields”** (In collaboration with K. Kiriaki) Greek Department of Research and Technology (1997-1999)
23. **“Nondestructive Wave Analysis and Formation Control of Materials”** (In collaboration with A. Payatakes) Greek Department of Research and Technology (1999-2001).
24. **“Source Localization during Electromagnetic Brain Activity”** The Karatheodory Program of the University of Patras (2000-2003).
25. **“TELECARE: Patient TELEmonitoring, using Ultra Low Discomfort Vital Signs Sensors over Mobile Networks for Interactive Continuous CARE”** (In collaboration with MICREL) European Union Program INFORMATION-SOCIETY-TECHNOLOGY (2001-2004).
26. **“Scattering and Imaging Methods for Anisotropic Elastic Materials”** (Bilateral collaboration between the Greek and the German Foundations for Scholarships) IKYDA 2003 Program. Collaboration with Professor Karl Langeberg of the University of Kassel, Germany (2003-2005).
27. **“Scattering in Anisotropic Media”** (In collaboration with N.Kathreptas) Program ARHIMIDES of the Greek Ministry of Education (2004-2006)
28. **“Experimental and Computational Investigation of Flows – Flows Behind Obstacles”** (In collaboration with K.Mavrides) Program ARHIMIDES of the Greek Ministry of Education (2004-2006).
29. **“Analysis of the Ellipsoidal Model of Electro-Magneto-Encephalography”** Program PYTHAGORAS II of the Greek Ministry of Education (2005-2008).
30. **“Electromagnetic Brain Activity : A Novel Mathematical Approach”** (In collaboration with A.S.Fokas). Marie Curie Chair of Excellence Project of the European Commission (2005-2008).

31. **“Mathematical and Computational Investigation of the Flow Field for Biological Fluids in Designing Some Important Clinical Applications”** (In collaboration with G.Kamvyssas) Program ARHIMIDES of the Greek Ministry of Education (2012-2014).
32. **“Social and Educational Factors in the Access Process to the University Education in Greece”** (In collaboration with D. Mattheou) Program THALES of the Greek Ministry of Education (2012-2014).
33. **“Source Identification and Stability Analysis in Electro-Magnet-Encephalography”** (Principal Investigator) Program ARISTIA of the Greek Ministry of Education (2012-2014).

ORIGINAL PUBLICATIONS

1. **“Convergent Low-Frequency Expansions for Penetrable Scatterers”**
Journal of Mathematical Physics, **18**, pp. 126-137
1977
2. **“Equipartition of Energy for Maxwell’s Equations”**
Quarterly of Applied Mathematics, **37**, pp. 465-469
1980
3. **“Equipartition of Energy in Elastic Wave Propagation”**
Mechanics Research Communications, **6**, pp. 45-50
1979
4. **“Second Order Low-Frequency Scattering for the Soft Ellipsoid”**
SIAM Journal of Applied Mathematics, **38**, pp. 373-381
1980
5. **“Asymptotic Equipartition of Kinetic and Strain Energy for Elastic Waves In Anisotropic Media”**
(with E. Galanis)
Quarterly of Applied Mathematics, **39** pp. 121-128
1980
6. **“Low-Frequency Scattering Theory for a Penetrable Body with an Impenetrable Core”**
SIAM Journal on Applied Mathematics, **42**, pp. 272-280
1982
7. **“Scattering of Acoustic Waves by a Coated Pressure-Release Ellipsoid”**
Journal of the Acoustical Society of America, **70**, pp. 176-185
1981
8. **“Energy Theorems for Magnetoelastic Waves in a Perfectly Conducting Medium”**
Quarterly of Applied Mathematics, **39**, pp. 479-490
1982

9. **“Finite Time Equipartition for Second-Order Hyperbolic Systems”**
IMA Journal of Applied Mathematics, **29**, pp. 197-202
 1982
10. **“Local Energy Decay for Scattering of Elastic Waves”**
Journal of Differential Equations, **49**, pp. 124-141
 1983
11. **“Equipartition of Energy in Scattering Theory”**
 (with M. Grillakis)
SIAM Journal on Mathematical Analysis, **14**, pp. 915-924
 1983
12. **“Equipartition of Energy for Anisotropic Elastic Waves”**
 (with M. Grillakis)
Journal of Differential Equations, **51**, pp. 408-418
 1984
13. **“Dissipation Rates and Partition of Energy in Thermoelasticity”**
 (with M. Grillakis)
Archive for Rational Mechanics and Analysis, **87**, pp. 49-91
 1984
14. **“The Low-Frequency Theory of Elastic Wave Scattering”**
 (with K. Kiriaki)
Quarterly of Applied Mathematics, **42**, pp. 225-248
 1984
15. **“A Useful Application on Gauss Theorem”**
 (with K. Kiriaki)
Bulletin of the Greek Mathematical Society, **28**, pp. 39-43
 1987
16. **“The Rigid Ellipsoid in the Presence of a Low-Frequency Elastic Wave”**
 (with K. Kiriaki)
Quarterly of Applied Mathematics, **43**, pp. 435-456
 1986
17. **“A Matrix Approach to the Energy-Norm Bisection in Wave Motion”**
Bulletin of the Greek Mathematical Society, **23**, pp. 95-141
 1982
18. **“Asymptotic Equipartition Rate for Wave Motion in an Even Number of Space Dimensions”**
 (with M. Grillakis)
Journal of Mathematical Analysis and its Applications, **120**, pp. 44-52
 1986
19. **“The Ellipsoidal Cavity in the Presence of a Low-Frequency Elastic Wave”**
 (with K. Kiriaki)
Quarterly of Applied Mathematics, **44**, pp. 709-735
 1987
20. **“Degeneracy of Partition Modes for Dissipative Systems”**
Linear Algebra and its Applications, **84**, pp. 387-391
 1986

21. **“On the Scattering Amplitudes for Elastic Waves”**
(with K. Kiriaki and D. Polyzos)
Journal of Applied Mathematics and Physics (ZAMP), **38**, pp. 856-873
1987
22. **“The Scattering Amplitudes and Cross-Sections in the Theory of Thermoelasticity”**
(with V. Kostopoulos)
SIAM Journal on Applied Mathematics, **48**, pp. 79-98
Errata: **49**, pp. 1283-1284 (1989)
1988
23. **“The Atkinson-Wilcox Expansion Theorem for Elastic Waves”**
Quarterly of Applied Mathematics, **46**, pp. 285-299
1988
24. **“The Inverse Scattering Problem for the Soft Ellipsoid”**
Journal of Mathematical Physics, **28**, pp. 2858-2862
1987
25. **“Equipartition of Energy in Magnetohydrodynamics”**
(with R. Lucas)
The Physics of Fluids, **30**, pp. 3845-3846
1987
26. **“Korn’s Constant for a Spherical Shell”**
(with E. Andreou and D. Polyzos)
Quarterly of Applied Mathematics, **46**, pp. 583-591
1988
27. **“Estimates for Low-Frequency Elastic Scattering by a Rigid Body”**
(with L. Payne)
Journal of Elasticity, **20**, pp. 161-180
1988
28. **“Energy Bounds for Rayleigh Scattering by an Elastic Cavity”**
(with L. Payne)
Journal of Mathematical Analysis and its Applications, **138**, pp. 106-128
1989
29. **“On the Harmonic Radius and the Capacity of an Inverse Ellipsoid”**
Journal of Mathematical Physics, **29**, pp. 835-836
1988
30. **“Creeping Flow Around and Through a Permeable Sphere Moving with Constant Velocity Towards a Solid Wall”**
(with A. Payatakes)
Chemical Engineering Communications, **58**, pp. 119-138
1987
31. **“On Kelvin Inversion and Low-Frequency Scattering”**
(with R. Kleinman)
SIAM Review, **31**, pp. 565-585
1989
32. **“On the Capacity and Rayleigh Scattering for Non-Convex Bodies”**
(with R. Kleinman)
Quarterly Journal of Mechanics and Applied Mathematics, **42**, pp. 467-475
1989

33. **“Low-Frequency Expansions for Lossy Scatterers”**
International Journal of Engineering Sciences, **27**, pp. 723-726
 1989
34. **“On Rayleigh Expansions in Thermoelastic Scattering”**
 (with V. Kostopoulos)
SIAM Journal on Applied Mathematics, **50**, pp. 1300-1324
 1990
35. **“Thermoelastic Rayleigh Scattering by a Rigid Ellipsoid”**
 (with V. Kostopoulos)
Computational and Applied Mathematics, **9**, pp. 153-173
 1990
36. **“On a Physical Characterization of the Surface of an Ellipsoid”**
International Journal of Engineering Science, **28**, pp. 1205-1208
 1990
37. **“Low-Frequency Moments in Inverse Scattering Theory”**
Journal of Mathematical Physics, **31**, pp. 1691-1692
 1990
38. **“High-Frequency Asymptotics in Inverse Scattering by Ellipsoids”**
 (with Y. Arnaoudov and V. Georgiev)
Mathematical Methods in the Applied Sciences, **16**, pp. 1-12
 1993
39. **“Generalized Eigenfunctions and Complete Semiseparable Solutions for Stokes Flow in Spheroidal Coordinates”**
 (with M. Hadjinicolaou and A. Payatakes)
Quarterly of Applied Mathematics, **52**, pp. 157-191
 1994
40. **“Stokes Flow in Spheroidal Particle-in-Cell Models with Happel and Kuwabara Boundary Conditions”**
 (with M. Hadjinicolaou, F.A. Coutelieris, and A.C. Payatakes)
International Journal of Engineering Science, **33**, pp. 1465-1490
 1995
41. **“Equipartition of Energy in Linearized 3-D Viscoelasticity”**
 (with F. Zafiropoulos)
Quarterly of Applied Mathematics, **48**, pp. 715-730
 Errata: 50, p. 599 (1991)
 1990
42. **“A Note on the Reconstruction of Ellipsoids from the X-Ray Transform”**
 (with B. Sleeman)
IMA Journal of Mathematics Applied in Medicine and Biology, **8**, pp. 141-147
 1991
43. **“Inverse Scattering via Low-Frequency Moments”**
 (with A. Charalambopoulos)
Journal of Mathematical Physics, **32**, pp. 4206-4216
 1992
44. **“On the Density of Traction Traces in Scattering of Elastic Waves”**
 (with Z. Rigou)
SIAM Journal on Applied Mathematics, **53**, pp. 141-153
 1993

45. **“A Parallel Algorithm for Solving the Inverse Scattering Problem”**
(with T. Apostolopoulos)
Journal of Computational and Applied Mathematics, **42**, pp. 63-77
1992
46. **“Comments on Optimal Catalyst Profiles in Pellets - VIII. General Nonisothermal Reacting Systems with Arbitrary Kinetics”**
(with S. Pavlou and C.G. Vayenas)
Chemical Engineering Science, **46**, pp. 3327-3328
1991
47. **“Creeping Flow Around and Through a Permeable Sphere with a Moving Constant Velocity Towards a Solid Wall; A Revision”**
(with V.N. Burganos, A.C. Michalopoulou and A.C. Payatakes)
Chemical Engineering Communications, **117**, pp. 85-88
1992
48. **“Karp’s Theorem in Elastodynamic Inverse Scattering”**
(with P. Martin)
Inverse Problems, **9**, pp. 97-111
1993
49. **“Scattering Theorems for Complete Dyadic Fields”**
(with K. Kiriaki and D. Polyzos)
International Journal of Engineering Science, **33**, pp. 269-277
1995
50. **“Scattering of Elastic Waves by a Small Thermoelastic Body”**
(with V. Kostopoulos)
International Journal of Engineering Science, **32**, pp. 1593-1603
1994
51. **“An Inverse Problem in Low-Frequency Scattering by an Ellipsoidally Embossed Surface”**
(with R. Lucas)
Wave Motion, **20**, pp. 33-39
1994
52. **“On the Equivalence of Dual Reciprocity and Particular Integral Approaches in the BEM”**
(with D. Polyzos and D. Beskos)
Boundary Elements Communications, **5**, pp. 285-288
1994
53. **“Elastic Herglotz Functions”**
(with Z. Rigou)
SIAM Journal on Applied Mathematics, **55**, pp. 1345-1361
1995
54. **“On the Rapid Convergence of the Analytical Solution of Stokes Flow Around Spheroids-in-Cell”**
(with V.N. Burganos, F.A. Coutelieris, and A.C. Payatakes)
Chemical Engineering Science, **50**, pp. 3313-3317
1995

55. **“Dissipation of Energy for Magnetoelastic Waves in a Conductive Medium”**
(with E. Andreou)
Quarterly of Applied Mathematics, **55**, pp. 23-39
1997
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13. **“Rayleigh Scattering via Kelvin Inversion”** (with R. Kleinman), Conference on Methods and Techniques of Mathematical Physics, Oberwolfach (1989)
14. **“The Korn Constant for the Spherical Shell”** (with E. Andreou and D. Polyzos), Second National Congress of the International Union of Theoretical and Applied Mechanics, Athens 1989, Proceedings pp. 70-78, Athens (1990)

15. **“Kelvin Inversion and Rayleigh Scattering”** Second National Congress of the International Union of Theoretical and Applied Mechanics, Athens 1989, Proceedings pp. 263-270, Athens (1990)
16. **“Energy Behavior of Viscoelastic Waves”** (with F. Zafiropoulos), Second National Congress of the International Union of Theoretical and Applied Mathematics, Athens 1989, Proceedings pp. 246-254, Athens (1990)
17. **“Low-Frequency Expansions for Scattering of Thermoelastic Waves”** (with V. Kostopoulos) Second National Congress of the International Union of Theoretical and Applied Mathematics, Athens 1989, Proceedings pp. 281-291, Athens (1990)
18. **“Inverse Thermoelastic Rayleigh Scattering by a Rigid Ellipsoid”** (with K. Kiriaki and V. Kostopoulos) Workshop on Inverse Problems and Imaging, Glasgow 1989, Proceedings pp. 49-67, Glasgow (1991)
19. **“Size, Orientation, and Thickness Identification of an Ellipsoidal Shell”** (with K. Kiriaki), Workshop on Inverse Problems and Imaging, Glasgow 1989, Proceedings pp. 38-48 Glasgow (1991)
20. **“The Generalized Moment Problem in Inverse Scattering Theory”** 1st Workshop on Wave Propagation Problems, Heraklion (1991)
21. **“The Herglotz-Navier Wave Functions”**, Proceedings of the Second International Conference on Industrial and Applied Mathematics, Washington (1991)
22. **“A Surface Moment Problem in Shape Reconstruction”**, Proceedings of the Second International Conference on Industrial and Applied Mathematics, Washington (1991)
23. **“On the Completeness of Surface Traction and Karp's Theorem in Inverse Elastic Scattering”** (with D. Polyzos), Greek Conference on Wave Propagation Problems in Solids and Fluids, Thessaloniki (1991)
24. **“Generalized Eigenspaces and Semiseparation of Variables”**, Second Panhellenic Meeting on Mathematical Analysis, Athens (1992)
25. **“Identification of Physical and Geometrical Parameters in Inverse Scattering by Spherical Shells”** (with V. Kostopoulos), Third National Congress of the International Union of Theoretical and Applied Mechanics, Proceedings pp. 664-674, Athens (1992)
26. **“Complete Representation of Stokes Flow in Spheroidal Geometry”** (with M. Hadjinicolaou and A. Payatakes) Third National Congress of the International Union of Theoretical and Applied Mechanics, Proceedings pp. 151-157, Athens (1992)
27. **“Elastic-Thermoelastic Interaction in Scattering Theory”** (with V. Kostopoulos), 2nd Workshop on Wave Propagation Problems Proceedings pp. 95-110, Heraklion (1992)

28. **“Scattering of an Elastic Wave by an Elastic Body with an Elastic Core”** (with K. Kiriaki and D. Polyzos), 2nd Workshop on Wave Propagation Problems Proceedings pp. 85-94, Heraklion (1992)
29. **“Semiseparation of Variables in Stokes Flow”** Workshop in Honor of Professor Joseph B. Keller, University of Crete, Heraklion (1993)
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31. **“The Small Sphere within a Point Source Field”** British Applied Mathematics Colloquium, Proceedings p. 28, University of Strathclyde, Glasgow (1993)
32. **“Elastodynamic Inverse Obstacle Scattering”** (with P. Martin) SIAM-INRIA Second International Conference on Mathematical and Numerical Aspects of Wave Propagation, Proceedings pp. 330-337, Newark (1993)
33. **“Dyadic Scattering: A Unified Approach to the Classical Theories”** (with D. Polyzos), SIAM-INRIA Second International Conference on Mathematical and Numerical Aspects of Wave Propagation, Proceedings pp. 172-179, Newark (1993)
34. **“A Thermoelastic Approach to Laser Spallation”** (with V. Kostopoulos), SIAM-INRIA Second International Conference on Mathematical and Numerical Aspects of Wave Propagation Extended, Abstracts p. 17, Newark (1993)
35. **“Inverse Scattering for Small Bodies via Point Source Excitation”**, Symposium on Applications of Mathematical Analysis to Mechanics, Abstracts p. 5, University of Thessaloniki, Thessaloniki (1993)
36. **“Index Weaving and Generation of Semiseparable Solutions”** in Inverse Scattering and Potential Problems in Mathematical Physics: R.E. Kleinman, R. Kress and E. Martensen (Eds.), 40, pp. 33-46, Conference on Methods & Applications of Mathematical Physics, Oberwolfach (1993)
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38. **“Exterior Elastic Herglotz Functions and their Spectral Decomposition”** (with Z. Rigou), Fourth National Congress of the International Union of Theoretical and Applied Mechanics, Proceedings, pp 195-201, Xanthi (1995)
39. **“Spectral Analysis of Modeled Human Skull”** (with K. Karveli and V. Kostopoulos), Fourth National Congress of the International Union of Theoretical and Applied Mechanics, Proceedings, pp 14-21, Xanthi (1995)
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42. **“Interconnection Between Scattering and Multipole Expansions in Elasticity”** (with M. Hadjinicolaou), Euromech Colloquium 354, Abstracts, page 1, Chania (1996)
43. **“Low Frequency Scattering by Targets Above a Ground Plane”** (with R. Kleinman), AGARD Conference on Radar Signature Analysis and Imaging of Military Targets, Proceedings pp. 4.1-4.10, Ankara (1996)
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45. **“Dynamical Characteristics of the Human Brain”** (with E. Douzinas, V. Kostopoulos, C. Massalas, C. Roussos, E. Siggounas, D. Fotiadis, A. Charalambopoulos), 1st National Conference of Chemical Engineering, Patras (1997)
46. **“Reciprocity Theorems for Point Source Scalar Scattering”** (with A. Charalambopoulos and G. Kamvyssas), Workshop on Mathematical Methods in Scattering Theory and Biomedical Technology, Proceedings pp. 12-19, Metsovo (1998)
47. **“Bispherical Geometry in Multiple Scattering”** (with A. Charalambopoulos and M. Hadjinicolaou), Workshop on Mathematical Methods in Scattering Theory and Biomedical Technology, Proceedings pp. 186-200, Metsovo (1998)
48. **“On the Identification of a Simple Conductive Body Buried in a Conductive Earth at Low Frequencies”** (with B. Ducheime, G. Kamvyssas, M. Lambert, D. Lesselier and G. Perrusson), URSI International Symposium on Electromagnetic Theory, Proceedings, pp. 575-577, Thessaloniki (1998)
49. **“Electromagnetic Scattering by a Triaxial Homogeneous Penetrable Ellipsoid: Low-Frequency Derivation and Testing of the Localized Nonlinear Approximation”** (with A. Charalambopoulos, M. Lambert, D. Lesselier and G. Perrusson), URSI International Symposium on Electromagnetic Theory, Proceedings, pp. 408-410, Thessaloniki (1998)
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58. **“The Vekua Connection between the Kernel Spaces of the Laplace and the Helmholtz Operator”** (with A. Charalambopoulos) Fifth International Symposium on Orthogonal Polynomials, Special Functions and their Applications, Abstracts, p. 44, Patras (1999)
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70. **“The Near to the Far Field Mapping in Scattering Theory. The Case of Ellipsoidal Fitting”** In *14th Summer School on Nonlinear Dynamics: Chaos and Complexity* University of Patras (2001)
71. **“Image Theory for the Prolate Spheroid”** (with I. Lindell and K. Nikoskinen) USNC/URSI National Radio Science Meeting, 2001 Digest p.121, Boston (2001)
72. **“On the Potential Representations for Polyadics and Anisotropic Media”** In *Sixth International Conference of the Hellenic Society of Theoretical and Applied Mechanics*, Proceedings, Volume II, pp. 109-113, Thessaloniki (2001)
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86. **“The Anisotropic Dirichlet Problem in Scattering Theory”** (with K.Karadima) Proceedings of the 10th National Conference on Mathematical Analysis, Athens (2004)
87. **“Ellipsoidal Singularities in the Theory of Electromagnetic Brain Imaging”** (with S. Giapalaki and F. Kariotou) Proceedings of the 10th National Conference on Mathematical Analysis, Athens (2004)
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89. **“Semi-Analytic Forward Calculation for the EEG in Multi-Shell Realistic Volume Conductors Based on the Lead Field Theorem”** (with G.Nolte) Poster Presentation in BIOMAG2004. Boston (2004)
90. **“On the Hidden Electromagnetic Activity of the Brain”** Proceedings of the Nymfaio 7th International Workshop on *Mathematical Methods in Scattering Theory and Biomedical Technology*, pp. 297-303, Nymfaio (2005)
91. **“General Polarizability Tensor for two Spheres”** (with M.Hadjinicolaou and G.Kamvyssas) Proceedings of the Nymfaio 7th International Workshop on Mathematical Methods in Scattering Theory and Biomedical Technology, pp. 128-135, Nymfaio (2005)
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95. **“On the Global Relation and Moment Theory for the Ellipse”** Joint Mathematics Meetings, San Antonio, Texas. AMS ABSTRACTS (# 1014-35-588), **27**, 1, Issue **143**, p.98 (2006)
96. **“Is there any overlapping information on the EEG and MEG recordings?”** International Conference on Inverse Scattering Problems Honoring D.Colton and R.Kress. Sestri Levante, Italy (2008).

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100. **“Spheroidal and Spherical Green’s Function for Stokes Flow”**
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101. **“On the Ellipsoidal Growth of tumor”** (with F.Kariotou and M.Tsampas)
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104. **“What Part of the Neuronal Current can EEG-Measurements See ?”**
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111. **“The Complete Set of Vector Ellipsoidal Harmonics and the Independence of the EEG and MEG Measurements”** 7th GRACM International Congress on Computational Mechanics, Athens (2011)
112. **“Vector Eigenfunctions of the Ellipsoidal Biharmonic Operator”** 4th Serbian-Greek Symposium on *Recent Advances in Mechanics*, pp.49-50 Vlasina Lake- Surdulica (2011)
113. **“Neuronal Current Decomposition via Vector Surface Ellipsoidal Harmonics”** Isaac Newton Institute for Mathematical Sciences, Workshop on *Analytic and Geometric Methods in Medical Imaging*, Cambridge (2011)
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115. **“Cloaking of Ellipsoidal Regions via Transformation Invariance”** International Conference on Computational and Experimental Engineering. Chania (2012)
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127. **“A chemical energy approach of avascular tumor growth”**
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16. *“Differential Equations”* Chapters 0, 1, 4, and 5 of the electronic book for the Subject
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17. *“Ellipsoidal Harmonics: Theory and Applications”*
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19. *“Introductory Elements on the Propagation and Scattering of Waves”*
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