

Curriculum Vitae

Nikolaos M. Stavrakakis
Full Professor
Department of MATHEMATICS,
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PROFESSIONAL EXPERIENCE

6/12/07 - . . . Full Professor in the Department of Mathematics, National Technical University of Athens.

10/1999 – 6/12/07 Associate Professor in the Department of Mathematics, National Technical University of Athens.

10/1993 – 10/1999 Assistant Professor in the Department of Mathematics, National Technical University of Athens.

7/1988, 8/1989, 2/1993-8/1994 Academic Visitor Heriot -Watt University, Department of Mathematics, Edinburgh, Scotland.

9/1988 – 9/1993 Lecturer in the Department of Mathematics, National Technical University of Athens.

2/1987 – 8/1987 Research Associate Ecole Polytechnique - Centre de Mathematiques Appliques, Paris France.

6/1986 – 1/1987 Research Associate Heriot-Watt University, Department of Mathematics, Edinburgh, Scotland.

9/1985- 5/1986 Research Associate Brown University, Division of Applied Mathematics, U.S.A.

2/1982 – 9/1988 Research Assistant in the Department of Mathematics, National Technical University of Athens.

EDUCATION

1987: Ph.D. in Mathematics, Department of Mathematics, National Technical University of Athens, Greece.

1976-1979: Postgraduate Studies in the Dept. of Mathematics, University of Bucharest, Romania, in the area Functional Analysis (Ordered Banach Spaces).

1975: Diploma in Mathematics, Dept of Mathematics, University of Patras, Greece.

Member of Scientific Societies

1. Hellenic Mathematical Society,
2. American Mathematical Society (AMS),
3. Society for Industrial and Applied Mathematics (SIAM),
4. European Consortium for Mathematics in Industry (ECMI).
5. Société Européenne pour la Formation des Ingénieurs (SEFI),

Positions of Responsibility

Director: M.Sc. Program «*Mathematical Modeling in Modern Technologies and Finance*» since 2003.

Vice-President: Senate Committee on Fundamental Research at NTUA 2003 to 2006

Vice-President: Senate Committee on Central Library at NTUA 2003 to 2006

President: HELLENIC FEDERATION OF UNIVERSITY TEACHERS' ASSOCIATIONS, (PANELLINIA OMOSPONDIA SILLOGON DIDAKTIKOU KAI EREVNITIKOU PROSOPIKOU - POSDEP) since 2009.

FIELDS OF SCIENTIFIC INTEREST

- * **Stochastic Functional Analysis**
- * **Partial Differential Equations:**
 - 1) **Semilinear and Quasilinear Elliptic Equations and Systems,**
 - 2) **Semilinear and Quasilinear Hyperbolic Problems,**
 - 3) **Semilinear and Quasilinear Parabolic Problems,**
- * **Mathematical Modeling**
- * **Educational Aspects of Engineering Mathematics**

Participation in Conferences

1. "Harmonic Analysis", University of Crete, Heraclion, June 1977;
2. "On Banach Spaces", University of Crete, Heraclion, Dec. 1979;
3. "7th Balkanic Conference of Mathematics", NTUA, Athens, Dec 1983;
4. "Symposium On Operator Theory", NTUA, Athens, August 1985;
5. "On Infinite Dimensional Dynamical Systems", Lisbon, Portugal, May 1986 (**Invited Speaker**);
6. "Symposium on Material Instabilities in Continuum Mechanic", Heriot-Watt University, Edinburgh, Scotland, June - August 1986;
7. "The Calculus of Variations, Nonlinear Elasticity Theory, Numerical Analysis", Heriot-Watt University, Edinburgh, Scotland, July 16-18, 1986;
8. "Equadiff 87", University of Thrace, XANTHI, Greece, Aug. 24-28, 1987;
9. "Differential Equations", University of Dundee, Dundee Scotland, July 1988;

10. "On Reaction-Diffusion Equations", Heriot-Watt University, Edinburgh UK, July 1988;
11. "Summer School on Dynamical Systems", ICTP, Trieste, Italy, Aug.-Sept. 1988;
12. "27th European Study Group with Industry", Univ. of Strathclyde, Glasgow, UK, 21st - 25th March 1994;
13. "Harmonic Analysis and Partial Differ. Equations", Instructional Conference ICMS, Edinburgh, 6 to 15 April 1994;
14. "IMA Conference on Mathematical Education of Engineers", Loughborough University of Technology, England, 28th - 30th March 1994;
15. "Workshop on Reaction Diffusion Equations", Anogeia, Crete, September 5-9, 1994 (**Invited Speaker**);
16. "Elliptic and Parabolic PDE's and Applications", Capri, Italy, September 19 - 23, 1994;
17. "The 3rd International Congress on Industrial and Applied Mathematics", Hamburg, Germany, July 3-7, 1995;
18. "Reaction Diffusion Systems", Trieste, Italy, October 2-7, 1995 (**Invited Speaker**);
19. "Recent Advances in Partial Differential Equations and Applications", (a conference in honor on P. D. Lax and L. Nirenberg on their 70th Birthday), June 10-14, 1996, Venice, Italy;
20. "The 2nd World Congress of Nonlinear Analysts", July 10-17, 1996, Athens, Greece (**Invited Speaker in two Special Sessions**);
21. "5th Panellenic Conference on Mathematical Analysis", 13-14 September 1996, Anogeia, Crete, Greece.
22. "Singularities in Nonlinear Partial Differential Equations", February 3 - 7, 1997, Université François Rabelais de Tours, Laboratoire de Mathématiques et Applications, Tours, France
(Invited Speaker);
23. "3rd European Conference on Elliptic and Parabolic equations", June 16 - 20, Pont-a-Mousson, Nancy, 1997, France (**Invited Speaker**) ;
24. "The Delft Meeting on Functional Analysis and Partial Differential Equations", May 25-27, 1998, Delft, The Netherlands (**Invited Speaker**) ;
25. "The Dynamics of Patterns", 19-25 June 1999, Anogeia, Crete, Greece.
26. "Equadiff 99: International Conference on Differential Equations", August 01 - 07, 1999, Berlin, Germany
(Invited Speaker in two Special Sessions);
27. "1st Interdisciplinary Symposium on Nonlinear Problems", 21-22 January, 2000, NTU, Athens, Greece (**Chairman of the Organizing Committee**)
28. "Workshop on Dynamics", 2-3 June 2000, NTU, Athens, Greece. (**Organizing Committee**)
29. "International Conference on Mathematical Analysis and Its Applications", 25-28 August 2000, NTU, Athens, Greece. (**Organizing Committee**) (**3 Talks**);
30. «8thPanellenic Conference on Mathematical Analysis», Xanthi, 29-30 September 2000,
31. «International Conference on Differential, Difference Equations and their Applications», July 1-5, 2002, Patras, Greece,
32. «9th Panellenic Conference on Mathematical Analysis», Chania, 5-7 September, 2002 (**2 Talks**);

33. «*Interdisciplinary Symposium: Mathematical Modeling in Modern Technologies and Economics*», 16-17 Mai, 2003, NTU, Athens, Greece (**Chairman of the Organizing Committee**), (See, <http://www.mathtechfin.math.ntua.gr/>)
34. "Equadiff 2003: International Conference on Differential Equations", July 22-26, 2003, Hasselt, Belgium. (**Invited Speaker in one Special Session**) (2 Talks);
35. "Congress on Differential Equations", June, 4 - 6, 2004, University of Ioannina, Ioannina, Greece (**Invited Speaker**);
36. "Tenth International Conference on Hyperbolic Problems; Theory, Numerics and Applications" Osaka, Japan September 13-17, 2004.
37. «*10^o Panellenic Conference on Mathematical Analysis* », 30th of September – 2nd of October 2004, NTU, Athens, Greece (**Organizing Committee**) (3 Talks);
38. «*1st Summer School on Mathematical Modelling – 2005*», 27th of June - 1st of July 2005, Polytechniopolis Zografou, NTUA, Athens Greece (**Chairman of the Organizing Committee**); (See, <http://www.mathtechfin.math.ntua.gr/>)
39. «*EQUADIFF 11 International Conference on Differential Equations*», Czecho-Slovak Series, Comenius University, [Bratislava, Slovakia](#), July 25 - 29, 2005 (**Invited Speaker in one Special Session**) (2 Talks);
40. "11^o Panellenic Conference on Mathematical Analysis ", Thessaloniki GREECE, May 23-25, 2006;
41. "MASSEE International Congress on Mathematics MICOM-2006" May 31 – June 4, 2006, Cyprus, accepted a Contributed Talk (NO PARTICIPATION for personal reasons)
42. «*AIMS' Sixth International Conference on Dynamical Systems, Differential Equations and Applications*», Poitiers, France, June 25 - 28, 2006 (**Organizer of a Special Session and Invited Speaker in an other Special Session**) (2 Talks);
43. "Eleventh International Conference on Hyperbolic Problems (Theory, Numerics, Applications)", Ecole Normale Supérieure de Lyon, Lyon, France, July 17- 21, 2006 (**Invited Speaker**);
44. "International Congress of Mathematicians – 2006", Madrid, August 22–30, 2006; accepted a Contributed Talk (NO PARTICIPATION for personal reasons)
45. «*2st Summer School on Mathematical Modeling–2006*», September 2006, Polytechniopolis Zografou, NTUA, Athens Greece (**Chairman of the Organizing Committee**); (See, <http://www.mathtechfin.math.ntua.gr/>)
46. «*2nd Interdisciplinary Symposium: Mathematical Modelling in Modern Technologies and Economics*», September, 2006, NTU, Athens, Greece (**Chairman of the Organizing Committee**), (See, <http://www.mathtechfin.math.ntua.gr/>)
47. "The 7rd International Congress on Industrial and Applied Mathematics", 16 – 20 July, 2007, ETH, Zürich, Switzerland. (NO PARTICIPATION for personal reasons)

- 48.** «*Equadiff 2007: International Conference on Differential Equations*», August 5 -11, 2007, Vienna University of Technology, Austria.
- 49.** “*12o Panellenic Conference on Mathematical Analysis*”, 15 – 17 May, 2008, Athens GREECE (**3 Talks**);
- 50.** «*CHAOS 2008 Chaotic Modeling and Simulation International Conference*», 3 - 6 June 2008 Chania Crete Greece, MAICh Conference Centre, Chania GREECE (NO PARTICIPATION for personal reasons);
- 51.** «*Τριήμερο συνέδριο Μαθηματικής Ανάλυσης για Νέους Ερευνητές*», Τομέας Μαθηματικής Ανάλυσης του Τμήματος Μαθηματικών του Πανεπιστημίου Αθηνών, 26 - 28 Νοεμβρίου 2010, Αθήνα.

Seminars in Universities

- 1.** “*Weak dynamical Systems*”, Ecole Polytechnique Centre de Mathématiques Appliquées, Paris, mai 1987.
- 2.** “*Existence Results for Indefinite - Weight Semilinear Elliptic Problems*”, Dept. of Mathematics, University of Bristol, 26th April 1994.
- 3.** “*Global Bifurcation Results for Indefinite - Weight Semilinear Elliptic Problems in \mathbb{R}^N* ”, Dept. of Mathematics, University of Bath, 29th April 1994
- 4.** “*Existence Results for Semilinear Elliptic Problems on Unbounded Domains*”, Dept. of Mathematics, Universite Toulouse I, 30th of June, 5th of July 1994.
- 5.** “*Global Bifurcation Results for a Semilinear Elliptic Problem in \mathbb{R}^N* ”, Dept. of Mathematics and Computer Science, University of Leiden, 25th August 1994.
- 6.** “*Solutions of Some Elliptic Problems in Two Dimensional Unbounded Domains*”, Dept. of Mathematics, Universite Toulouse I, 2nd of December 1994.
- 7.** “*Methods of Bifurcation for Nonlinear Elliptic Equations on all of \mathbb{R}^N* ”, Dept of Mechanics, NTU Athens, March 27th, 1995.
- 8.** “*Existence and Simplicity of Principal Eigenvalues for some Quasilinear Elliptic Systems on \mathbb{R}^N* ”, Dept. of Mathematics and Computer Science, University of Leiden, 10th July 1995.
- 9.** “*Global Bifurcation Results for Noncompact Operators in Unbounded Domains*”, Dept. of Mathematics, Universite Toulouse III, (Paul Sabatier), 19 November 1996.
- 10.** “*Hyperbolic Problems on all of \mathbb{R}^N : Existence, Asymptotic Behavior*”, Dept. of Mathematics, Universite Toulouse I, 25 of November 1996.
- 11.** “*Engineering Mathematics and the Greek Experience: Special Case the Situation in NTUA*”, Ecole D' Ingeniers du Val de Loire-Blois, Universite Francois Rabelais de Tours, 3 Fevrier 1997.
- 12.** “*Global Bifurcation Results for a Semilinear Elliptic Problem in \mathbb{R}^N : Compact and Noncompact Cases*”, Laboratoire de Mathematiques et Applications, Universite Francois Rabelais de Tours, Jeudi 6 Fevrier 1997.
- 13.** “*Global Bifurcation Theory and Fredholm Operators in Unbounded Domains*”, Mathematisches Institut der Universitt Basel, Montag, den 7. April, 1997.

14. “*Global Existence, Blow-Up and Asymptotic Results for Kirchoff’s Equations on \mathbb{R}^N* ”, Dept. of Applied Mathematics, University of Crete, Heraklion, Greece, Tuesday 25th of May, 2004.

SCIENTIFIC PUBLICATIONS

A. Publications in Scientific Journals

Published Papers

- α1.** Kravvaritis, Dimitrios; Stavrakakis, Nikolaos, “*Perturbations of Maximal Monotone Random Operators*”, Proceedings of the symposium on operator theory (Athens, 1985). Linear Algebra Appl. 84 (1986), 301–310. (Reviewer: H. Salehi) 47H05 (60H25).
- α2.** Kravvaritis, Dimitrios; Stavrakakis, Nikolaos, “*Nonlinear Random Equations in Banach Spaces*”, Proceedings of the symposium on operator theory (Athens, 1985). Linear Algebra Appl. 84 (1986), 406–410. (Reviewer: H. Salehi) 47H05 (60H25)
- α3.** **Nikolaos M. Stavrakakis**, “*Nonlinear Random Operators of Monotone Type in Banach Spaces*”, PhD Thesis, NTUA, September 1987.
- α4.** Hale, J. K.; Stavrakakis, N., “*Compact Attractors for Weak Dynamical Systems*”, Applicable Analysis, 26 (1988), no. 4, 271–287. (Reviewer: Feliks Przytycki) 34D30 (34C35 35B35 58F12 93D15).
- α5.** Kravvaritis, Dimitrios; Stavrakakis, Nikolaos, “*An existence theorem for nonlinear random differential inclusions*”, (International Conferences Equadiff 87, Xanthi, Greece, 1987). In the Proceedings “*Differential Equations*” (Editors: C.M. Dafermos, G. Ladas & G. Papanicolaou), Marcel Dekker, Inc. New York, (1989).
- α6.** Kravvaritis, Dimitrios; Stavrakakis, Nikolaos, “*A New Existence Theorem for Nonlinear Random Equations*”, Bull. Greek Math. Soc. Vol 28, (1989), 67-72.
- α7.** Stavrakakis, Nikolaos; Stratis, Ioannis G., “*On the Solvability of Random Volterra Inclusions*”, Math. Balkanica (N.S.) 7 (1993), no. 3-4, 239–251. (Reviewer: Norimichi Hirano) 45D05 (47H15 47H40 47N20 60H20).
- α8.** Brown, K. J.; Stavrakakis, N., “*Sub and Supersolutions for Semilinear Elliptic Equations on all of R^N* ”, Differential Integral Equations, Vol 7 (1994), no. 5-6, 1215–1225. (Reviewer: Jesús Hernández) 35J65 (35B40 35P30).

- a9.** Brown, K. J.; Stavrakakis, N., "Global Bifurcation Results for a Semilinear Elliptic Equation on all of R^N ", **Duke Math Journ**, Vol 85, (1996), 77-94. (Reviewer: Jolanta Przybycin) [35B32 \(35J60\)](#)
- a10.** Fleckinger, J.; Manásevich, R. F.; Stavrakakis, N. M.; de Thélin, F., "Principal Eigenvalues for Some Quasilinear Elliptic Systems on R^N ", **Advances in Differential Equations**, [2 \(1997\), no. 6](#), 981–1003. [35J65 \(35B05 35P15\)](#)
- a11.** K. J. Brown and N. M. Stavrakakis, "On the Construction of Super and Subsolutions for Elliptic Equations on all of R^N ", **Nonlinear Analysis TMA**, Vol 32 (1), (1998), 87-95.
- a12.** Stavrakakis, Nikos M., "Global Bifurcation Results for a Semilinear Elliptic Equations on RN: The Fredholm Case", **Journal of Differential Equations**, [142 \(1998\), no. 1](#), 97–122. (Reviewer: Yi Hong Du) [35J60 \(35B32 47H12 58E07\)](#)
- a13.** Stavrakakis, Nikos; Sweers, Guido, "Positivity for a Noncooperative System of Elliptic Equations on all of R^N ", **Advances in Differential Equations**, [4 \(1999\), no. 1](#), 115–136. (Reviewer: A. P. Soldatov) [35J45 \(35B05\)](#).
- a14.** Stavrakakis, Nikos M.; de Thélin, Francois, "Principal Eigenvalues and Anti-Maximum Principle for some Quasilinear Elliptic Equations on R^N ", **Mathematisches Nachrichten.**, 212 (2000), 155-171. (Reviewer: Vitaly B. Moroz) [35P30 \(35B50 35J65\)](#)
- a14a** Karachalios, Nikos I.; Stavrakakis, Nikos M. "Asymptotic behavior of some nonlinear dissipative hyperbolic equations on R^N ", **International Conference on Differential Equations**, Vol. 1, 2 (Berlin, 1999), 638–640, *World Sci. Publ., River Edge, NJ*, 2000. [35L70](#)
- a14b** Stavrakakis, N. M.; Zographopoulos, N. B. Bifurcation results for quasilinear elliptic systems on R^N , **International Conference on Differential Equations**, Vol. 1, 2 (Berlin, 1999), 575–577, *World Sci. Publ., River Edge, NJ*, 2000. [35J60 \(35B32 47J15\)](#)
- a15.** Karachalios, Nikos I.; Stavrakakis, Nikos M. "Existence of Global Attractors for a Semilinear Hyperbolic Equation on R^N ", **Journal of Differential Equations**, [157 \(1999\), no. 1](#), 183–205. [35L70 \(35B41 37L30\)](#)
- a16.** Karachalios, Nikos I.; Stavrakakis, Nikos M., "Global existence and blow-up results for some nonlinear wave equations on R^N ", **Advances in Differential Equations**, [6 \(2001\), no. 2](#), 155–174. (Reviewer: A. Borzymowski) [35L70 \(35B40 35D05\)](#)

- a17.** Stavrakakis, N. M.; Zographopoulos, N., "Global Bifurcation Results for a Semilinear Biharmonic Equation on all of R^N ", **Zeitschrift fur Analysis und ihre Anwendungen**, 18 (3), (1999), 753-766. [35J60](#) ([35B32](#) [47J15](#) [58E07](#))
- a18.** Drábek, Pavel; Stavrakakis, Nikos M., "Bifurcation from the First Eigenvalue of Some Nonlinear Elliptic Operators in Banach Spaces", **Nonlinear Analysis TMA**, [42](#) (2000), no. 4, Ser. A: Theory Methods, 561–572. (Reviewer: Yong Qing Li) [47J15](#) ([35J60](#) [35J65](#) [47J10](#) [58E07](#))
- a19.** Stavrakakis, N. M.; Zographopoulos, N. B., Existence Results For Quasilinear Elliptic Systems on R^N , **Electronic Journal of Differential Equations**, (1999), 39, 1-15. (Reviewer: Alberto Tesei) [35J50](#) ([35J60](#) [47J30](#))
- a19a** Stavrakakis, N. M.; Zographopoulos, N. B. Erratum: "Existence results for quasilinear elliptic systems in R^N ", **Electron. J. Differential Equations** [1999](#), No. 39, 15 pp; [MR1713598](#). *Electron. J. Differential Equations* [1999](#), 1 p. [35J45](#) ([35D05](#) [35J50](#) [35J60](#))
- a19b** Stavrakakis, N. M.; Zographopoulos, N. B. "Bifurcation results for quasilinear elliptic systems on R^N ", **International Conference on Differential Equations**, Vol. 1, 2 (Berlin, 1999), 575–577, *World Sci. Publ., River Edge, NJ*, 2000. [35J60](#) ([35B32](#) [47J15](#))
- a20.** Karachalios, Nikos; Stavrakakis, Nikos, "Asymptotic behaviour of solutions of some nonlinearly Damped Wave Equations on R^N ", **Topol. Methods Nonlinear Anal.** [18](#) (2001), no. 1, 73–87. (Reviewer: Alan Jeffrey) [35L70](#) ([35B40](#)).
- a20a** Karachalios, Nikos I.; Stavrakakis, Nikos M. "Asymptotic behavior of some nonlinear dissipative hyperbolic equations on R^N ", **International Conference on Differential Equations**, Vol. 1, 2 (Berlin, 1999), 638–640, *World Sci. Publ., River Edge, NJ*, 2000. [35L70](#) ([35B40](#) [35B41](#))
- a21.** Stavrakakis, N. M.; Zographopoulos, N. B., "Multiplicity-Regularity Results for Quasilinear Elliptic Systems on R^N ", **Nonlinear Anal.** [50](#) (2002), no. 1, Ser. A: Theory Methods, 55–69. (Reviewer: Xiaofeng Ren) [35J60](#) ([35B65](#) [35J20](#) [35J45](#) [47J30](#))
- a22.** Karachalios, Nikos I.; Stavrakakis, Nikos M. "Global Attractor for the weakly damped driven Schrödinger equation in $H^2(\mathbb{R})$ ", **NoDEA Nonlinear Differential Equations Appl.** [9](#)(2002), no. 3, 347–360. (Reviewer: Olivier J. Goubet) [37L30](#) ([35B40](#) [35B41](#) [35Q40](#))

- a23.** Papadopoulos, Perikles G.; Stavrakakis, Nikos M., "Global existence and blow-up results for an equation of Kirchhoff type on R^N ", **Topol. Methods Nonlinear Anal.** 17(2001), no. 1, 91–109. (Reviewer: Jorge Ferreira) 35L70 (35B40)
- a24** Stavrakakis, N. M.; Zographopoulos, N. B. "Bifurcation results for the mean curvature equations defined on all R^N ", Proceedings of Euroconference on Partial Differential Equations and their Applications to Geometry and Physics (Castelvecchio Pascoli, 2000). **Geom. Dedicata** 91(2002), 71–84. (Reviewer: Mitsuhiro Nakao) 35J60 (35B32 35B45 35P30 58E07)
- a25.** Karachalios, Nikos I.; Stavrakakis, Nikos M., "Estimates on the Dimension of a Global Attractor for a Semilinear Dissipative Wave Equation on R^N ", **Discrete and Continuous Dynamical Systems**, 8, (2002), 939–951. (Reviewer: Vittorino Pata) 35L70 (35B41 35L15 37L30)
- a26.** Stavrakakis, N. M.; Zographopoulos, N. B., "Bifurcation Results for some Quasilinear Elliptic Systems", **Advances in Differential Equations**, 8, (2003), 315–336. (Reviewer: Jie Yang) 35J55 (35B32 35J60 47J15)
- a27.** Karachalios, Nikos; Stavrakakis, Nikos; Xanthopoulos, Pavlos, "Asymptotic Behavior of Solutions for a Semibounded Nonmonotone Evolution Equation", **Abstract and Applied Analysis**, Vol. 2003, No. 9, (2003), 521–538. (Reviewer: Emmanuel Chasseigne) 35K55 (35B40 35B41 35K20 37L30)
- a28.** Drábek, P.; Stavrakakis, N. M.; Zographopoulos, N. B., Multiple Nonsemitrivial Solutions for Quasilinear Elliptic Systems, **Differential and Integral Equations**, Vol 16 (12), (2003), 1519 - 1531. (Reviewer: Zhi-Qiang Wang) 35J55 (35D05 35J50 47J30)
- a29.** Karachalios, Nikos I.; Stavrakakis, Nikos M.; Xanthopoulos, Pavlos, "Parametric Energy Decay for Dissipative Electron-Ion Plasma Waves", **Z. Angew. Math Phys.**, 56 (2): (2005), 218–238. (Reviewer: Olivier J. Goubet) 35Q55 (35B40 76X05 82D10)
- a30.** Papadopoulos, Perikles G.; Stavrakakis, Nikos M., "Central Manifold Theory for the Generalized Equation of Kirchhoff Strings on R^N ", **Nonlinear Analysis, TMA**, 61 (2005), 1343–1362. 35L70 (35B35 35L15 37L10)
- a30a** Papadopoulos, Perikles G.; Stavrakakis, Nikos M. "Global existence, blow up and asymptotic results for Kirchhoff strings on R^N ", **EQUADIFF 2003**, 1122–1124, *World Sci. Publ.*, Hackensack, NJ, 2005. 35L70 (35B40)

- a31. Poulou, Marilena N.; Stavrakakis, Nikolaos M., "Eigenvalue Problems for a Quasilinear Elliptic Equation on R^N ", Int. J. Math. Math. Sci., 2005:18 (2005) 2871-2882. [35P30 \(35J60 47J30\)](#)
- a32. Papadopoulos, Perikles G.; Stavrakakis, Nikolaos M., "Strong Global Attractor for Some Quasilinear Nonlocal Wave Equation on R^N ", Electronic Journal of Differential Equations, Vol. 2006, No. 77, (2006), pp. 1-10. [37L30 \(35B41 35L70\)](#)
- a32a Stavrakakis, Nikolaos M. "On a new system of Klein-Gordon-Schrödinger type", Hyperbolic problems: Theory, Numerics and Applications II, 329–336, Yokohama Publ., Yokohama, 2006. [35M33 \(35A01 35A02 35B40 35L70 35Q55 81Q05\)](#)
- a33. Poulou, Marilena N.; Stavrakakis, Nikolaos M.; Zographopoulos, N. B., "Global Bifurcation Results on Some Degenerate Quasilinear Elliptic Systems", Nonlinear Analysis TMA, Vol. 66 no. 1, (2007), 214-227. [35J55 \(35B45 35D05 35P30 47J15 58E07\)](#)
- a34 Papadopoulos, Perikles G.; Stavrakakis, Nikos M., "Compact invariant sets for some quasilinear nonlocal Kirchhoff strings on R^N " Appl. Anal. 87 (2008), no. 2, 133–148. [35L70 \(35B41 35L15 37L30\)](#)
- a35. Papadopoulos, Perikles G.; Stavrakakis, Nikolaos M., "Global Existence for a Wave Equation on R^N ", Discrete and Continuous Dynamical Systems, Special Series, Vol 1 No 1 March 2008, 139-149. (Reviewer: Ryo Ikehata) [35L70 \(35A05 35B40 35L15\)](#)
- a36. Poulou, Marilena N.; Stavrakakis, Nikolaos M., "Global attractor for a Klein-Gordon-Schrödinger type system", Discrete Contin. Dyn. Syst. 2007, Dynamical Systems and Differential Equations. Proceedings of the 6th AIMS International Conference, suppl., 844–854. ISBN: 978-1-60133-010-9; 1-60133-010-3 (Reviewer: Woodford W. Zachary) [37L30 \(35B41 35Q55 76A05\)](#).
- a36a Poulou, M. N.; Stavrakakis, N. M. "Global attractor and its dimension for a Klein-Gordon-Schrödinger System" Hyperbolic Problems: Theory, Numerics, Applications, 1013–1020, Springer, Berlin, 2008. [37L30 \(35B41 35Q55 81Q05\)](#)
- a37. Poulou, Marilena N.; Stavrakakis, Nikolaos M. "Finite dimensionality of a Klein-Gordon-Schrödinger type system", Discrete and Continuous Dynamical Systems-Series S (Editors M. Grasselli, Alain Miranville and S. Zelik), 2 (2009), no. 1, 149–161. [35B41 \(35B45 35B65 35Q55 37L30\)](#).
- a38. Palamides, Alex P.; Stavrakakis, Nikolaos M., "Existence and uniqueness of a positive solution for a third-order three-point boundary-value problem", Electron. J. Differential Equations 2010, No. 155, 12 pp. (Reviewer: Feliz Manuel Minhós) [34B10 \(34B18 47N20\)](#)
- a39. Stavrakakis, Nikolaos M.; Stylianou, Athanasios N., "Global attractor for some wave equations of p - and $p(x)$ -Laplacian type", Differential Integral Equations, 24 (2011), no. 1-2, 159–176. [35B41 \(35L72 37L30\)](#)

a40. Poulou, Marilena N.; Stavrakakis, Nikolaos M., “*Global attractor for a system of Klein-Gordon-Schrödinger type in all R^N* ”, *Nonlinear Anal.* 74 (2011), no. 7, 2548–2562. 35K55 (35A01 35A02 35B40 35B60)

a41. Poulou, Marilena N.; Stavrakakis, Nikolaos M., “*Uniform decay for a local dissipative Klein-Gordon-Schrödinger type system*”, *Electron. J. Differential Equations* 2012, No. 179, pp. 1-16 35Q55 (35A01 35A02 35B40 35L71)

Για μια συνεχώς επικαιροποιούμενη ενημέρωση όσον αφορά τις αναφορές στις παραπάνω εργασίες και άλλα σημαντικά επιστημονικά στοιχεία, που αφορούν το επιστημονικό μου προφίλ παραπέμπω στη σελίδα της American Mathematical Society (AMS) και στη διεύθυνση:

<http://ams.math.uni-bielefeld.de/mathscinet/search/author.html?mrauthid=239140>

καθώς και στις σελίδες του Google scholar

<http://scholar.google.es/citations?user=noFV8-8AAAAJ&hl=en>

Submitted Papers

a40. N. M. Stavrakakis and S. E. Stavroulakis, “*Global Attractor for a system of Klein – Gordon – Schrödinger type on a bounded domain of IR^N , $N=2,3$* ”, submitted.

Most of the above papers may be found (in PDF form) in my **Web Page**:

<http://www.math.ntua.gr/greek/faculty/nstavrakakis.htm>

Papers in Progress

a42. N. M. Stavrakakis and S. E. Stavroulakis, “*Global Attractor for a system of Klein–Gordon–Schrödinger type on a bounded domain of IR^N , $N=2,3$: the case $\lambda=\lambda(x)$* ”, in progress.

B. Conference Proceedings

b1. N. M. Stavrakakis, “*Mathematical Education in Greek Technical Universities*”, in Proceedings of IMA, (Editors L R Mustoe and S Hibberd) from “Conference on Mathematical Education of Engineers”, Loughborough, 28-30 March, 1994, Clarendon Press, Oxford, (1995).

b2. N. M. Stavrakakis, “*Eigenvalue Problems for Indefinite - Weight Linear Elliptic Equations on all of \Re^N* ”, ICIAM/GAMM 95 Proceedings, ZAMM, Spesial Issue 2 (Ed. O Mahrenholtz and R Mennicken), (1996), 683-685.

- b3.** N. M. Stavrakakis, "Generalized Sobolev Spaces and Nonlinear Elliptic Problems on Unbounded Domains", Proceedings of the "5th Panellenic Conference on Analysis", 13-14 September 1996, Anogia, Crete, Greece, (1998).
- b4.** N .M. Stavrakakis, "Global Bifurcation Theory and Fredholm Operators in Unbounded Domains", Proceedings of the "3rd European Conference on Elliptic and Parabolic equations", June 16 - 20, Pont-a-Mousson, Nancy, 1997, France, (Eds. H Amann, C Bandle, M Chipot) in Research Notes Longman (Pitman) Advances Maths Publ. Prog., (1998).
- b5.** N I Karachalios and N M Stavrakakis "Asymptotic Behavior of Semilinear Dissipative Wave Equations on \Re^N ", Proceedings of the "6th Panellenic Conference on Analysis", September 1997, Samos, Greece, (1999).
- b6.** N I Karachalios and N M Stavrakakis "Stability and Blow-Up Questions for Semilinear Wave Equations on \Re^N ", in the Proceedings of "The Delft Meeting on Functional Analysis and Partial Differential Equations", (Eds Ph Clement and G Sweers), May 25-27, 1998, Delft, The Netherlands, submitted.
- b7.** N M Stavrakakis "Bifurcation Results for Compact and Noncompact Operators on \Re^N ", Volume in Honor of Prof John Mittas, University of Thesalonica, Ed. Ziti, Salonika, Greece, 2000.
- b8.** N I Karachalios and N M Stavrakakis "Ασυμπτωτική Συμπεριφορά Ημιγραμμικών Υπερβολικών εξισώσεων με απόσβεση στο \Re^N ", Volume in Honor of Prof John Mittas, University of Thesalonica, Ed. Ziti, Salonika, Greece, 2000.
- b9.** N I Karachalios and N M Stavrakakis, Asymptotic Behavior of Some Nonlinear Dissipative Hyperbolic Equations on \Re^N , in the Proceedings of Equadiff 99, The International Conference on Differential Equations, August 01 - 07, 1999, Berlin, Germany, Vol. 1. Singapore: World Scientific. 575-577 (2000).
- b10.** N M Stavrakakis and N Zographopoulos, Bifurcation Results for Quasilinear Elliptic Systems on \Re^N , in the Proceedings of Equadiff 99, The International Conference on Differential Equations, August 01 - 07, 1999, Berlin, Germany, Vol. 1. Singapore: World Scientific. 575-577 (2000).
- b11.** N M Stavrakakis, Weighted Functions and Unbounded Domains in Partial Differential Equations, in the Proceedings of the 1st Interdisciplinary Symposium on Nonlinear Problems, 21-22 January, 2000, NTU, Athens, Greece.
- b12** N I Karachalios and N M Stavrakakis, Global Attractor for the Non-linear, Weakly Damped Schroedinger Equation in $H^2(R)$, Proceedings of the International Conference in Mathematical Analysis, in Memoriam of C. Papakyriakopoulos, NTUA University Press (2002), pg.183-192.
- b13** P. Papadopoulos and N. M. Stavrakakis, «Global Existence, Blow-Up Results and Compact Invariant Sets for Some Quasilinear Nonlocal Kirchhoff Strings on \Re^N » Proceedings of the International Conference in Mathematical Analysis, in Memoriam of C. Papakyriakopoulos, 24-27 August 2000, NTUA University Press (2002), pg. 276-286.
- b.14** N. M. Stavrakakis and N Zographopoulos, «Bifurcation Results for Some Quasilinear Elliptic Systems on \Re^N », Proceedings of the International Conference in Mathematical Analysis, in Memoriam of C. Papakyriakopoulos, 24-27 August 2000, NTUA University Press (2002), pg. 369 - 378.
- b.15** P. Papadopoulos and N. M. Stavrakakis, «Compact Invariant Sets and Blow-Up Results for an Equation of Kirchhoff Type on \Re^N », Proceedings of the 8th Panellenic Conference on Mathematical Analysis, Xanthi, 29-30 September 2000, pp. 36-42.
- b.16** N. M. Stavrakakis, «Weighted Function Spaces and Unbounded Domains in Partial Differential Equations», Proceedings of the 8th Panellenic Conference on Mathematical Analysis, Xanthi, 29-30 September 2000,

- b.17** P. Papadopoulos and N. M. Stavrakakis, «Kirchhoff's Equation and Central Manifold Theory», «9th Panellenic Conference on Mathematical Analysis», Chania, 5-7 September, 2002
- b.18** P. Papadopoulos and N. M. Stavrakakis, *Global Existence, Blow up and Asymptotic Results for Kirchhoff Strings on \mathbb{R}^N* , "Equadiff 2003: International Conference on Differential Equations", July 22-26, 2003, Hasselt, Belgium.
- b.18** P. Papadopoulos and N. M. Stavrakakis, *Global Existence, Blow up and Asymptotic Results for Kirchhoff Strings on \mathbb{R}^N* , "Equadiff 2003: International Conference on Differential Equations", July 22-26, 2003, Hasselt, Belgium, (Editors: Dumortier, Broer, Mawhin, Vanderbauwhede, Verduyn-Lunel) World Scientific Publ. Co., pp. 1122-1124, 2005.
- b.19** N. M. Stavrakakis, *On a New System of Klein-Gordon-Schrödinger Type*, The Tenth International Conference on: Hyperbolic Problems: Theory, Numerics & Applications, September 13 - 17, 2004 OSAKA, JAPAN, (Editors F. Asakura, H. Aiso, S. Kawashima, A Matsumura, S. Nishibata, K. Nishihara), Yokohama Publishers, pp 329-336, 2006;
- b.20** N. M. Stavrakakis, «On Some Klein-Gordon-Schrödinger Type Systems» «10th Panellenic Conference on Mathematical Analysis», 30th of September – 2nd of October 2004, NTU, Athens, Greece ;
- b.21** P. Papadopoulos and N. M. Stavrakakis, «Global Existence, Blow Up and Asymptotic Results for Some Mildly Degenerate Kirchhoff's Equations on \mathbb{R}^N », «10th Panellenic Conference on Mathematical Analysis», 30th of September – 2nd of October 2004, NTU, Athens, Greece ;
- b.22** M. Poulou and N. M. Stavrakakis, "On Some Quasilinear Elliptic Problems on R^N ", «10th Panellenic Conference on Mathematical Analysis», 30th of September – 2nd of October 2004, NTU, Athens, Greece ;
- b.23** M. Poulou and N. M. Stavrakakis, "Eigenvalue Questions on some Quasilinear Elliptic Problems", «EQUADIFF 11 International Conference on Differential Equations», Czecho-Slovak Series, Comenius University, Bratislava, Slovakia, July 25 - 29, 2005, to appear.
- b.24** N. M. Stavrakakis, "On some Klein-Gordon-Schrödinger Type Systems", «EQUADIFF 11 International Conference on Differential Equations», Czecho-Slovak Series, Comenius University, Bratislava, Slovakia, July 25 - 29, 2005, to appear.
- b.25** M. Poulou and N. M. Stavrakakis, "Qualitative Properties of a Klein-Gordon-Schrödinger Type System", 11th Panellenic Conference on Mathematical Analysis, May 23-25, 2006, Thessaloniki, GREECE, to appear;
- b.26** M. Poulou, N. M. Stavrakakis and N Zographopoulos, "Global Bifurcation on Quasilinear Elliptic Systems", "11th Panellenic Conference on Mathematical Analysis", May 23-25, 2006, Thessaloniki, GREECE, to appear;
- b.27** M. Poulou and N. M. Stavrakakis, "Asymptotic Behavior of Solutions for a Klein-Gordon-Schrödinger Type System", Eleventh International Conference on Hyperbolic Problems; Theory, Numerics, Applications, Ecole Normale Supérieure de Lyon, Lyon, France July 17-21, 2006, to appear.

- β.28** «*Equadiff 2007: International Conference on Differential Equations*», August 5 -11, 2007 , Vienna University of Technology, Austria, to appear.
- β.29** “*12o Panellenic Conference on Mathematical Analysis* ”, 15 – 17 May, 2008, Αθήνα GREECE, in preparation;

C. Books

- c.1** N. M. Stavrakakis, *Ordinary Differential Equations. Linear and Nonlinear Theory. With Applications from Nature and Life* (in Greek). Papasotiriou Publ., Athens, 1997, pp. 715 +xvii. (2nd Edition) January 2011, pp630 + xvii.
- c.2** N. M. Stavrakakis, *Partial Differential Equations for Science and Technology* (in Greek), Athens, 2002, pp. 351 +xiv; (2nd Edition) 2006, pp406 + xx. 3rd Edition Papasotiriou Publ., Athens, 2013,
- c.3** N. M. Stavrakakis, *Introduction to Dynamical Systems* (in Greek), Athens, 2006. pp. 134.
- c.4** N. M. Stavrakakis and G. A. Athanassoulis (Editors), (In English) Proceedings of the “*1st Interdisciplinary Symposium on Nonlinear Problems*”, 21-22 January, 2000, NTU, Athens, Greece, (2004). (Βλέπε, <http://www.mathtechfin.math.ntua.gr/>)
- c.5** N. M. Stavrakakis (Editor) (in electronic form): (In English) Proceedings of the “*Interdisciplinary Symposium: Mathematical Modeling in Modern Technologies and Economics*”, 16-17 Mai, 2003, NTU, Athens, Greece (in preparation).

Doctoral Dissertations

1) Nikos Karachalios, (October 1995 – February 1999)

Title: «*Asymptotic Behaviour of some Semilinear Hyperbolic Equations in R^N* », Ph. D. Dissertation, Dept of Mathematics, NTUA, February 1999.

2) Nikos Zographopoulos, (October 1996 – February 2000)

Title: «*Bifurcation Results for Quasilinear Elliptic Systems in \Re^N* » Ph. D. Dissertation, Dept of Mathematics, NTUA, February 2000.

3) Perikles Papadopoulos, (October 1997 – February 2003):

Title: «*Asymptotic Behaviour of some Quasilinear Hyperbolic Equations of Kirchoff Type in R^N* », Ph. D. Dissertation, Dept of Mathematics, NTUA, February 2003.

4) Pavlos Xanthopoulos, (October 1999 - October 2003)

Title: «*Modeling and Asymptotic Behaviour of some Nonlinear Dispersive Systems in Magnetic Σύντηξη*», Ph. D. Dissertation, Dept of Mathematics, NTUA, October 2003.

5) Marilena Poulou, (October 2003 – 22 March 2007)

Title: «*Functional Analytic methods in Nonlinear Stationary and Evolutionary Problems*», Ph. D. Dissertation, Dept of Mathematics, NTUA, March 2007.

6) Stylianos Stavroulakis (October 2008 –)

Title: «*Analytical study of a system of Klein – Gordon – Schrodinger type*», Ph.D. candidate, Dept of Mathematics, NTUA,.

Research Projects Completed

(1989 - 1992) Collaboration Project between Dept of Mathematics NTUA, Dept of Mathematics University of Athens and Dept. of Mathematics, Heriot-Watt Univ. Edinburgh, Scotland. The project was financed by the British Council.

(1994 - 1996) Participation in the project under the title "Reaction Diffusion Equations". The project was financed by EU "*Human Capital and Mobility Program for a Scientific and Technical Cooperation Network*" No ERBCHRXCT 930409. In the project participate Universities from Greece, UK, France, Italy, Holland and Spain.

(1996) Exchange Program between Dept of Mathematics NTUA and Dept of Mathematics University Paul Sabatier, Toulouse, France. The project was supported by the Greek Rescearche Foundation and the CNRS - France. Θέση: **Scientific Responsible.**

(1996-1999) Exchange Program between Dept of Mathematics, NTUA and Dept of Mathematics, University of Basel, Switzerland. The project was under the title: Quasilinear Partial Differential Equations and Calculus of Variations. The project was financed by the: "Swiss National Science Foundation". **Scientific Responsible:** Catherine Bandle.

(1997) Exchange Program between Dept of Mathematics, NTUA and Dept of Mathematics, University of West Bohemia, Pilsen, Czech Republic. The project was financed by the: Research Committee of NTUA. **Scientific Responsible.**

(1998) Exchange Program between Dept of Mathematics, NTUA and Dept of Mathematics, University of West Bohemia, Pilsen, Czech Republic. The project was financed by the: Research Committee of NTUA. **Scientific Responsible.**

(2000-2001) PENED – 1999 under the title: *Dynamics of Phase Transitions and of the related Transitional Phenomena in Alloys*, Finance by the General Secretariat for Researche and Technology (G.E.G.E.T.) with the amount of 55.000.000 Drch.

(2001-2002) Project of basic research under the Title **TDM and WDM with Chirped Solitons in Optical Transmission Systems**. Financed by the «Archimedes» program from the Committee of Fundamental Research at NTUA, Athens, Greece. Duration 24 μήνες.

(9/2002-8/2004) Project of basic research under the Title **Analysis of Nonlinear Elliptic & Evolution Equations and Systems**. Financed by the «Thalis» program No 65/1211 from the Committee of Fundamental Research at NTUA, Athens, Greece. Duration 24 μήνες. Amount. 2.400.000 Drch. **Scientific Responsible**

(3/2004 – 8/2007) Project of basic research under the Title: *Dynamics of Infinite Discrete and Continuous Dimensional Systems and Applications*. Duration 28 months. Financed by the Ministry of Education (EPEAEK II) in the program "Pythagoras". Amount 80.000 Euro. **Scientific Responsible**

(9/2003 – 8/2008) New Program of Graduate Studies under the title: «Mathematical Modeling in Modern Technologies and Finance». Duration 36 months. Financed by the Ministry of Education (EPEAEK II). Amount 209.400 Euro. **Scientific Responsible**

(11/2009-11/2011) Project of basic research under the Title "*Analytical and Dynamic study of Elliptic & Evolution Problems*". Financed by the «PEVE - 2009» from the Committee of Fundamental Research at NTUA, Athens, Greece. Duration 24 μήνες. Amount. 15.000.00 euro. **Scientific Responsible**

Teaching Courses

A. Undergraduate Courses

- 1) One-Variable and Multi-Variable Calculus,
- 2) Linear Algebra and Analytic Geometry
- 3) Complex Functions,
- 4) Ordinary Differential Equation,
- 5) Partial Differential Equations,
- 6) Introduction to Dynamical Systems,

B. Graduate Courses

- 1) Dynamical Systems and Mathematical Theory of Chaos,
- 2) Nonlinear Partial Differential Equations (Variational Methods, Bifurcation Theory)

Scientific Journals

A. Member of Editorial Board

- 1) Nonlinear Dynamics and Systems Theory, Member of the Editorial Board.
<http://www.sciencearea.com.ua/>

B. Referee

- 1) Journal of Mathematical Analysis and Applications,
- 2) Electronic Journal of Differential Equations,
- 3) Applied Mathematics Letters,
- 4) Nonlinear Analysis TMA,
- 5) Journal of Edinburgh Mathematical Society
- 6) International Journal of Mathematics and Mathematical Sciences;
- 7) Mathematical Methods in the Applied Sciences;
- 8) Boundary Value problems;
- 9) Bulletin of the Hellenic Mathematical Society;
- 10) Journal of Differential Equations;
- 11) Computers and Mathematics with Applications.
- 12) Journal of Discrete and Continuous Dynamical Systems;
- 13) Sarajevo Journal of Mathematics;
- 14) Nonlinearity;
- 15) Acta Applicanda Mathematicae

8γ. Reviewer in Mathematical Reviews of American Mathematical Society since 1996

e-LINKS:

A) General

<http://www.sciencearea.com.ua/>

<http://www.emis.de/journals/ZAA/>

<http://www.wiley-vch.de/publish/en/journals/>

<http://www.ingenta.com/journals/>

<http://scholar.google.es/schhp?hl=en>

<http://www.timeshighereducation.co.uk/world-university-rankings/2011-12/world-ranking>

<http://www.topuniversities.com/>

<http://www.u-multirank.eu/>

<http://www.eua.be/Home.aspx>

<http://excellence.minedu.gov.gr/>

<http://www.scopus.com/:jsessionid=DE98CCB93500BE7FEA16D8306CB69AF7.mw4ft95QGjz1tIFG9A1uw>

B) Differential Equations

<http://tutorial.math.lamar.edu/Classes/DE/DE.aspx>

<http://www.sosmath.com/diffeq/diffeq.html>

http://en.wikibooks.org/wiki/Ordinary_Differential_Equations

<http://eqworld.ipmnet.ru/en/solutions/ode.htm>

C) Differential Equations & Mathematical Modeling

http://www3.ul.ie/tilde_accs/mlc/www/support/Loughborough%20website/chap19/19_1.pdf

<http://www.webcrawler.com/info.wbcawl.305.01/search/web?q=differential+equation+models&cid=145602395&ad.network=g&ad.keyword=differential%20equation%20models&ad.creative=27820701155&ad.position=>

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http://scholar.google.gr/scholar?q=differential+equations+modelling+examples&hl=el&as_sdt=0&as_vis=1&oi=scholart&sa=X&ei=LX6gUsviDevMygO1zoCACQ&ved=0CC0QgQMwAA

<http://www.math.ucsd.edu/~math20d/Fall/LabA1/LabA1.html>