

CURRICULUM VITAE

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Name: Konstantin Athanassopoulos.

Date and place of birth: 05. March 1961 in Athens, Greece.

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1. Studies and positions

1984-86: Fellow of the National Fellowship Foundation of Greece to carry out Ph.D. Thesis in the Department of Mathematics of the University of Athens under the supervision of Prof. Polychronis Strantzalos. Title of the Thesis: "Contribution to the theory of D^+ -stable dynamical systems on 2-manifolds", University of Athens, 1986 (in Greek).
1988-90: Research Fellow of the Alexander von Humboldt Foundation to carry out research in the Mathematical Institute of the Freie Universität Berlin. Host Prof. Dr. Elmar Vogt.

1991-93: Visitor in the Department of Mathematics of the University of Crete.

1993-97: Lecturer in the Department of Mathematics of the University of Crete.

1997-2002: Assistant Professor in the Department of Mathematics of the University of Crete.

2002- : Associate Professor in the Department of Mathematics of the University of Crete.

2. Fellowships and grants

1984: Two years fellowship from the National Fellowship Foundation of Greece IKY.

1988: Eightteen months research fellowship from the Humboldt Foundation.

1997: Two months research fellowship from the DAAD.

1997: One month financial support from the Sonderforschungsbereich Diskrete Strukturen in der Mathematik of the University of Bielefeld.

2003: One month financial support from the DFG Forschergruppe Spektrale Analysis und Stochastische Dynamik (Teilprojekt: Dynamik und Geometrie linearer algebraischer Gruppen) of the University of Bielefeld.

3. Publications

1. D^+ -stable dynamical systems on 2-manifolds, *Math. Z.* 196 (1987), 453-462.
2. (with P. Strantzalos) On minimal sets in 2-manifolds, *J. reine angew. Math.* 388 (1988), 206-211.
3. The flow near nontrivial minimal sets on 2-manifolds, *Math. Proc. Camb. Phil. Soc.* 108 (1990), 569-573.
4. Cohomology and asymptotic stability of 1-dimensional continua, *Manuscripta Math.* 72 (1991), 415-423.

5. A characterization of Denjoy flows, *Bull. London Math. Soc.* 24 (1992), 83-86.
6. Some aspects of the theory of asymptotic cycles, *Expositiones Math.* 13 (1995), 321-336.
7. (with A. Manoussos) Minimal flows on multipunctured surfaces of infinite type, *Bull. London Math. Soc.* 27 (1995), 595-598.
8. One-dimensional chain recurrent sets of flows in the 2-sphere, *Math. Z.* 223 (1996), 643-649.
9. Flows with cyclic winding numbers groups, *J. reine angew. Math.* 481 (1996), 207-215.
10. (with Th. Petrescou and P. Strantzalos) A class of flows on 2-manifolds with simple recurrence, *Comment. Math. Helvetici* 72 (1997), 618-635.
11. Rotation numbers and isometries, *Geom. Dedicata* 72 (1998), 1-13.
12. Volume preserving flows with cyclic winding numbers groups and without periodic orbits on 3-manifolds, *Manuscripta Math.* 97 (1998), 37-44.
13. Periodicity criteria of Poincaré-Bendixson type, *Univ. Iagel. Acta Math.* 36 (1998), 181-182.
14. Rotation of orbits and isometries, *Proceedings of the 3d Panhellenic Conference of Geometry*, (1999), 67-71.
15. (with A. Alexellis) Chain recurrence in flows on the Klein bottle, *Math. Proc. Camb. Phil. Soc.* 127 (1999), 83-91.
16. Cohomology of surface minimal sets, *Expositiones Math.* 17 (1999), 371-374.
17. On the Ruelle rotation for torus diffeomorphisms, *Math. Z.* 234 (2000), 225-239.
18. Explosions near isolated unstable attractors, *Pacific J. Math.* 210 (2003), 201-214.
19. Remarks on the region of attraction of an isolated invariant set, *Colloq. Math.* 104 (2006), 157-167.
20. Pointwise recurrent homeomorphisms with stable fixed points, *Topology Appl.* 153 (2006), 1192-1201.
21. Divergence of C^1 vector fields and nontrivial minimal sets on 2-manifolds, *Journal of Differential Equations* 243 (2007), 24-35.
22. Asymptotically stable one-dimensional compact minimal sets, *Topol. Methods Nonlinear Anal.* 30 (2007), 397-406.
23. The Ruelle rotation of Killing vector fields, preprint.
24. (with C. Panagiotakis and G. Tziritas) The equipartition of curves, preprint.
25. A characterization of continuous coboundaries in uniquely ergodic Cantor minimal sets, preprint.

4. Seminars in the Department of Mathematics of the University of Crete

- 1993: Topology of foliations.
- 1994: Ergodic Theory (in collaboration with D. Gatzouras).
- 2001: Ergodic Theory from a geometric point of view (with E. Menioudaki).
- 2002: (i) Topological transformation groups, (ii) Dynamics of plane homeomorphisms.
- 2003: Seminar on Geometry and Algebra.
- 2004: Seminar on Dynamical Systems.
- 2005: Seminar on Dynamical Systems and Ergodic Theory.
- 2006: Symplectic Geometry.
- 2007: Isolated invariant sets and the Conley index.

5. Notes of courses and seminars

1. Integration Theory and Algebraic Topology, 1990 (in Greek).
2. Introduction to Optimization Theory, 1991 (in Greek).
3. Handwritten notes on the Analysis of Functions of Several Variables, 1992 (in Greek), <http://www.math.uoc.gr/~athanako>.
4. The Conley index for continuous Dynamical Systems, 1993 (in Greek).
5. Differential Equations and Dynamical Systems, 1994 (in Greek).
6. (with D. Gatzouras) Ergodic Theory, 1994 (in Greek).
7. Hyperbolic Geometry, 2000 (in Greek), <http://www.math.uoc.gr/~athanako>.
8. Notes on elementary Topology, 2001 (in Greek), <http://www.math.uoc.gr/~athanako>.
9. Notes on the Ergodic Theory of Dynamical Systems from a geometric point of view, 2001 (in English), <http://www.math.uoc.gr/~athanako>.
10. Symplectic Geometry 2007 (in English), <http://www.math.uoc.gr/~athanako>.

6. Supervision of graduate students

Guidance of the Master Thesis of Mr. John Platis entitled "On the Godbillon-Vey invariant : Continuous variation and leaf dynamics" written in the Department of Mathematics of the University of Crete, Iraklion 1994.

Guidance of the Master Thesis of Mrs. Elen Menioudaki entitled "Dynamical Systems without periodic orbits : Counterexamples to Seifert's conjecture" written in the Department of Mathematics of the University of Crete, Iraklion 2000.

Guidance of the Master Thesis of Mr. J. Tsekouras entitled "Topological characterization of the conformal automorphisms of the 2-sphere : A modern approach", written in the Department of Mathematics of the University of Crete, Iraklion 2002.

Guidance of the mathematical part of the Ph. D. Thesis of Mr. A. Alexellis entitled "One-dimensional chain recurrent sets of flows on the Klein bottle", written in the Department of Mathematics of the University of Athens, Athens 2004. The historical part and the educational part were supervised by Prof. P. Strantzalos.

7. Selected lectures

"Stable compact minimal sets on 2-manifolds", 7th Congress of Balkan Mathematicians, Athens 1983.

"Flows in 1-dimensional spaces", 2nd Congress of Non-Linear Dynamics, Xanthi 1994.

"A survey on chain recurrence and the gradient structure of flows", 2nd Congress of Non-Linear Dynamics, Xanthi 1994.

"Periodicity criteria", 2nd Congress of Geometry, Anogia 1995.

"Periodicity criteria of Poincaré-Bendixson type", Topological Methods in Differential Equations and Dynamical Systems, the International Conference organised on the occasion of the 100th anniversary of the birth of T. Wazewski, Krakow 1996.

"Asymptotic winding and the existence of periodic orbits in continuous flows", 5th Congress of Analysis, Anogia 1996.

"Rotation of orbits and isometric systems", 3d Congress of Geometry, Athens, 1997.

"Rotation numbers and isometries", Arbeitsgemeinschaft Arithmetische Gruppen, Fakultät für Mathematik, Universität Bielefeld, 1997.

"The Ruelle rotation number for diffeomorphisms of the 2-torus", 4th Congress of Geometry, Patras, 1999.

"Rotation numbers in dynamical systems", invited in the Department of Mathematics of the University of the Aegean, Samos 2001.

"Fixed points of pointwise recurrent homeomorphisms of the 2-sphere", invited in the semi-annual Seminar Sophus Lie, Universität Bielefeld 2003.

"Pointwise recurrent homeomorphisms of S^2 ", Miniworkshop on Algebraic Groups, Transformation Groups and Related Topics, Fakultät für Mathematik, Universität Bielefeld 2003.

"Pointwise recurrent homeomorphisms of S^2 ", invited in the Department of Mathematics and Statistics of the University of Cyprus, Nicosia 2005.

"Rotation numbers in Dynamical Systems and Riemannian Geometry", invited in the Department of Mathematics and Statistics of the University of Cyprus, Nicosia 2005.

"Pointwise recurrent homeomorphisms of the sphere", 7th Congress of Geometry, Samos 2005.

"Isolated invariant sets and ANR topologies", 2006 International Conference on Topology and its Applications, Aegion 2006.

"Stable and unstable attractors", in the Department of Mathematics of the University of Athens, Athens 2006.

"Divergence of C^1 vector fields and nontrivial minimal sets on 2-manifolds", 8th Congress of Geometry, Ioannina 2007.

"Stable and unstable minimal attractors", Lyapunov Memorial Conference 2007, International Conference on the occasion of the 150th birthday of A.M. Lyapunov, Kharkiv, Ukraine 2007.

8. Conferences

7th Congress of Balkan Mathematicians, Athens, 1983.

Singular behavior and non-linear dynamics, an international conference, organised by St. Pnevmatikos, A. Bountis and Sp. Pnevmatikos, Samos, 1988.

2nd Panhellenic conference on non-linear dynamics, Xanthi, 1994.

Actions of Lie groups and discrete subgroups on manifolds, Euroconference in Mathematics on Crete, organised by G. Margulis and R. Zimmer, Anogia, 1995.

Workshop on Dynamical Systems, organised by J. Palis, Ya. Sinai and J-C. Yoccoz, International Centre for Theoretical Physics, Trieste, 1995.

2nd Panhellenic Congress of Geometry, Anogia, 1995.

Topological Methods in Differential Equations and Dynamical Systems, the International Conference organised on the occasion of the 100th anniversary of the birth of T. Wazewski, Krakow, 1996.

5th Panhellenic Congress of Analysis, Anogia, 1996.

3d Panhellenic Congress of Geometry, Athens, 1997.

4th Panhellenic Congress of Geometry, Patras, 1999.

Holomorphic Dynamics, Euroconference in Mathematics on Crete organised by K. Athanassopoulos, S. Bullett, A. Douady and W. Harvey, Anogia, 1999.

School and Workshop on Dynamical Systems, organised by J. Palis, Ya. Sinai, M. Viana and J-C. Yoccoz, International Centre for Theoretical Physics, Trieste, 2001.

Semi-annual Seminar Sophus Lie, organised by D. Poguntke, Universität Bielefeld, 2003.

7th Panhellenic Congress of Geometry, Samos, 2005.

2006 International Conference on Topology and its Applications, Aegion 2006.

8th Panhellenic Congress of Geometry, Ioannina 2007.

Lyapunov Memorial Conference 2007, International Conference on the occasion of the 150th birthday of A.M. Lyapunov, Kharkov, Ukraine 2007.

10. Other information

Co-organizer of the 2nd Panhellenic Conference of Geometry, 1995.

Co-organizer of the Euroconference Holomorphic Dynamics, 1999.

Referee for the journals: Archiv der Mathematik (Basel), Fundamenta Mathematicae, American Mathematical Monthly, Topology and its Applications, Scholarpedia (electronic).

Reviewer of the "Mathematical Reviews" since 1989.