

CURRICULUM VITAE
MICHAEL K. MARKELLOS

Address: Department of Mathematics, University of Western Macedonia, Greece

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Date of Birth: 27/12/1981

Education

06/2006 - 12/2009 Ph.D. in Mathematics, University of Patras, Greece

Title: **Study of special classes of contact Riemannian manifolds**

Supervisor: Professor Vassilis Papantoniou

10/2003 - 07/2006 M.Sc. in Pure Mathematics, University of Patras, Greece (Grade: **With Honours**)

Title: **Special classes of contact Riemannian manifolds**

Supervisor: Professor Vassilis Papantoniou

10/1999 - 07/2003 B.Sc. in Mathematics, University of Patras, Greece (Grade: 9,32/10, **ranked first**)

Military Services

- Military services in the Hellenic Navy from 02/09/2009 until 02/09/2010.

Research Interests

- Differential Geometry
- Sasaki and Kähler geometry
- Harmonic maps and minimal submanifolds
- Geometric Analysis

Awards and Scholarships

- Scholarship during all my under-graduate studies from the Greek State Scholarship Foundation (I.K.Y), 1999 - 2003.
- Award of excellence from the Greek State Scholarship Foundation (I.K.Y), **ranked first**, 2002 - 2003.
- Research grant from the Greek State Scholarships Foundation (I.K.Y.), written examination, **nation-wide competition, ranked first**, 2005 - 2008.
- Research grant from the Programme C.Caratheodory no. C.161, University of Patras, 2007-2010.
- Research Grant founded by ELIDEK under the action Support of Postdoctoral Researchers. Title of the program: “Rigidity Aspects of Submanifolds in Higher Codimensions”, 2019-2021.

Positions

- October 2005 - June 2009, Graduate Teaching Assistant, Department of Mathematics, University of Patras, Greece.
- February 2011 - August 2011, Full Time Visiting Lecturer, Department of Mathematics, University of Aegean, Karlovassi (Samos).
- September 2011 - January 2013, Full Time Visiting Lecturer, Frederick University, General Department, Nicosia (Cyprus).
- January 2013 - July 2013, Full Time Teaching Fellow at the School of Mathematics, University of Leeds (United Kingdom).
- September 2016 - December 2018, Special Scientist, Department of Mathematics and Statistics, University of Cyprus (Nicosia).
- January 2019 - May 2019, Full Time Visiting Lecturer, Department of Mathematics and Statistics, University of Cyprus (Nicosia).
- September 2019 - December 2021, Postdoctoral researcher, Section of Algebra and Geometry, Department of Mathematics, University of Ioannina (Greece), under the supervision of Assistant Professor Andreas Savas-Halilaj.
- October 2022 - January 2023. Academic Scholar at the Department of Mathematics, University of Thessaly (Greece).

- February 2023 - June 2023, Teaching assistant at the Department of Mathematics, University of Thessaly (Greece).
- August 2023 - present, Assistant Professor at the Department of Mathematics, University of Western Macedonia (Greece).

Thesis

1. M. Markellos, *Special classes of contact Riemannian manifolds*, M.Sc. Thesis, University of Patras, 2006.
2. M. Markellos, *Study of special classes of contact Riemannian manifolds*, Ph.D. Thesis, University of Patras, 2009.

Publications

1. Th. Koufogiorgos, **M. Markellos** and V. J. Papantoniou, *The harmonicity of the Reeb vector field on contact metric 3-manifolds*, Pacific J. Math., 234(2), 2008, 325–344.
2. **M. Markellos** and V. J. Papantoniou, *Biharmonic submanifolds in non-Sasakian contact metric 3-manifolds*, Kodai Math. J., 34(1), 2011, 144–167.
3. Th. Koufogiorgos, **M. Markellos** and Ch. Tsihlias, *Tangent sphere bundles with constant trace of the Jacobi operator*, Beiträge Algebra Geom., 53, 2012, 551–568.
4. **M. Markellos**, *The harmonicity of the Reeb vector field with respect to Riemannian g -natural metrics*, Differential Geom. Appl., 30, 2012, 274–284.
5. **M. Markellos** and Ch. Tsihlias, *Contact metric structures on S^3* , Kodai Math. J., 36, 2013, 154–166.
6. **M. Markellos** and H. Urakawa, *The bienergy of unit vector fields*, Ann. Glob. Anal. Geom., 46(4), 2014, 431–457.
7. **M. Markellos** and H. Urakawa, *The biharmonicity of sections of the tangent bundle*, Monatsh. Math., 178, 2015, 389–404.
8. **M. Markellos** and H. Urakawa, *Biharmonic vector fields on pseudo-Riemannian manifolds*, J. Geom. Phys., 130, 2018, 293–314.
9. E. Loubeau and **M. Markellos**, *The biharmonic homotopy problem for unit vector fields on 2-tori*, Ann. Mat. Pura Appl. (4), 198, 2019, 1639–1650.

10. **M. Markellos**, and A. Savas-Halilaj, *Rigidity of the Hopf fibration*, Calc. Var. Partial Differential Equations, 60, 2021, Article: 171
11. I. Fourtzis, **M. Markellos** and A. Savas-Halilaj, *Gauss maps of harmonic and minimal great circle fibrations*, Ann. Glob. Anal. Geom. , 63, 2023, Article: 12

Conference Proceedings

1. Th. Koufogiorgos, M. Markellos and V. J. Papantoniou, *The (κ, μ, ν) -contact metric manifolds and their classification in the 3-dimensional case*, Proceedings of the 10th International Conference on Differential Geometry and its Applications, Olomouc, Czech Republic, 27-31 August 2007, Hackensack, NJ; World Scientific, 2008, 293–303.
2. M. Markellos, *The biharmonicity of unit vector fields on the Poincaré half - space H^n* , Proceedings of the VIII International Colloquium on Differential Geometry, Santiago de Compostella, 7-11 July 2008, Hackensack, NJ; World Scientific, 2009, 247–256.

Teaching

1. University of Patras

Differential Geometry I(Under-Graduate), Analytic Geometry(Under-Graduate), Linear Algebra I(Under-Graduate), Tensor Analysis(Under-Graduate).

2. University of Aegean

Number Theory (Under-Graduate), Topics in Algebra (Under-Graduate).

3. Frederick University, General Department, Cyprus

AMAT 111 - Calculus and Analytic Geometry I (Under-Graduate), AMAT 204 - Differential Equations (Under-Graduate), AMAT 181 - Linear Algebra with MATLAB (Under-Graduate). Responsible for the supervision of students' work in MATLAB.

4. University of Leeds, United Kingdom.

MATH0370 - Introduction to Applied Mathematics 2 (Under-Graduate), MATH1510 - Financial Mathematics I (Under-Graduate).

Leader Lecturer overseeing a team of 6 assistants (3 postgraduate students and 3 lecturers) for tutorials of the module "Financial Mathematics I" and for the marking of the examination papers.

5. University of Cyprus, Nicosia, Cyprus

MAS001 - Mathematics I(Under-Graduate), MAS061 - Statistical Analysis I (Under-Graduate), MAS062 - Statistical Analysis II (Under-Graduate), MAS012 - Calculus for Computer Scientists (Under-Graduate), MAS439 - Special Topics in Geometry (Under-Graduate), MAS640 - Topics in Geometry (Post-Graduate), MAS425(Under-Graduate) and MAS625(Post-Graduate course) - Group Theory, MAS029 - Linear Algebra (Under-Graduate), MAS026 - Mathematics for Engineers II (Under-Graduate).

6. University of Thessaly, Greece

Calculus I (Under - Graduate), Calculus II (Under-Graduate), Calculus III (Under - Graduate)

Short Research Visits

- 25/11/2010 - 12/12/2010, Department of Geometry and Topology, University of Valencia, Spain. Host: Professor Antonio Martinez Naveira.
- 08/04/2011 - 16/04/2011, Department of Mathematics, University of the Seville, Spain. Host: Professor Alfonso Carriazo.
- 05/11/2013 - 23/12/2013, Department of Mathematics, University of Brest, France. Host: Maitre de conférences Eric Loubeau.
- 04/11/2014 - 23/12/2014, Department of Mathematics, University of Brest, France. Host: Maitre de conférences Eric Loubeau.

Talks-Conferences-Workshops

1. Summer School "Insurance Mathematics through the Stochastic Economy", Dimitsana, Greece, 22-27 September, 2003
2. 7th Panhellenic Conference in Geometry, Department of Mathematics, University of Aegean, Greece, May 2005
3. International Conference in Differential Geometry and Physics, Eötvös University, Budapest, August 2005
4. 23th Panhellenic Conference in Mathematics Education, Patras, Greece, 24-26 November, 2006 (Involvement in the organisation)
5. **Speaker**, *The harmonicity of the characteristic vector field on contact metric 3-manifolds*, 8th Panhellenic Conference in Geometry, Department of Mathematics, University of Ioannina, Greece, May 2007

6. International Conference in honour of Professor O. Kowalski "Recent advances in Differential Geometry," Lecce, Italy, June 2007
7. **Speaker**, *The harmonicity of the characteristic vector field on contact metric 3-manifolds*, International Conference on Differential Geometry and its Applications, Olomouc, Czech Republic, August 2007
8. **Speaker**, *Biharmonic submanifolds in non-Sasakian contact metric 3 - manifolds*, VIII International Colloquium on Differential Geometry, Santiago di Compostella, Spain, July 2008
9. **Speaker**, *Ricci solitons and contact manifolds*, 9th Panhellenic Conference in Geometry, Department of Mathematics, University of Crete, Greece, May 2009
10. **Speaker**, *The bienergy of unit vector fields*, 10th Panhellenic Conference in Geometry, Department of Mathematics, University of Patras, Greece, May 2011
11. **Invited Speaker**, *The bienergy of vector fields*, Yorkshire Differential Geometry Day, School of Mathematics, University of Leeds, United Kingdom, March 2013
12. **Invited Speaker**, *The bienergy of vector fields*, Seminar of Geometry and Topology, University of Brest, France, June 2013
13. **Speaker**, *The bienergy of vector fields*, International Conference on Differential Geometry and its Applications, Brno, Czech Republic, August 2013
14. **Invited Speaker**, *The harmonicity of the Reeb vector field on contact metric manifolds*, Seminar of Geometry and Topology, University of Brest, France, December 2013
15. The 10th Differential Geometry Day at Lund - Differential Geometry Workshop at Lund, Faculty of Science, Mathematics, Lund University, Sweden, May 2014
16. **Invited Speaker**, *Biharmonic sections and vector fields in Riemannian and Lorentzian case*, Seminar of Geometry and Topology, University of Brest, France, December 2014
17. **Speaker**, *Biharmonic vector fields on Riemannian and Lorentzian manifolds*, 13th Panhellenic Conference in Geometry, Department of Mathematics and Statistics, University of Cyprus, Larnaca, Cyprus, May 2017
18. **Invited Speaker**, *Biharmonic vector fields on Riemannian manifolds*, General Seminar, Department of Mathematics and Applied Mathematics, Crete, July 2018

19. **Speaker**, *Biharmonic unit vector fields and unit sections on Riemannian manifolds*, Differential Geometry Workshop 2018 (Harmonic maps, biharmonic maps, harmonic morphisms and related topics), Cagliari, Italy, September 2018
20. **Invited Speaker**, *Rigidity of the Hopf fibration*, Seminar of Geometry, Department of Mathematics, Aristotle University of Thessaloniki, Greece, April 2021
21. Online Differential Geometry Workshop 2021 (Harmonic maps, biharmonic maps and related topics), University of Vienna, September 2021

Professional Activities

1. Reviewer for the *Zentralblatt MATH*.
2. Referee for the journals "Beiträge zur Algebra und Geometrie (Contributions to Algebra and Geometry)" and "Journal of Geometry and Physics"

Citations

1. The paper entitled: "The harmonicity of the Reeb vector field on contact metric 3-manifolds" has been cited by other authors 38 times.
2. The paper entitled: "The harmonicity of the Reeb vector field with respect to Riemannian g -natural metrics" has been cited by other authors 1 time.
3. The paper entitled: "Biharmonic submanifolds in non-Sasakian contact metric 3-manifolds" has been cited by other authors 1 time.
4. The paper entitled: "The bienergy of unit vector fields" has been cited by other authors 5 times.
5. The paper entitled: "The biharmonicity of sections of the tangent bundle" has been cited by other authors 4 times.
6. The paper entitled: "The biharmonic homotopy problem for unit vector fields on 2-tori" has been cited by other authors 1 time.
7. The paper entitled: "Gauss maps of harmonic and minimal great circle fibrations" has been cited by other authors 1 time.