Georgios Psaradakis

Curriculum Vitae

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Personal Information

Name	Georgios
Surname	Psaradakis
Birth date - place	22 July 1979 - Heraklion, Crete, Greece
Nationality	Hellenic (compulsory military service: 2006-2007)
Marital status	Married (two children)

Education

10.2007-01.2012	**Doctoral Diploma of Applied Mathematics**, *School of Sciences and Engineering, University of Crete - Greece*, ADVISOR: STATHIS FILIPPAS
10.2003-11.2005	**Postgraduate Specialization Diploma in Pure Mathematics**, *School of Sciences and Engineering, University of Crete - Greece*
10.1998-03.2003	**Degree (Ptychion) in Mathematics directed to Applied Analysis and Mathematical Physics**, *School of Natural Sciences, University of Patras - Greece*

Positions

Since 02.03.23 (elected 01.09.22)	*Assistant Professor - Subject area: Mathematical Analysis*. University of Western Macedonia - Department of Mathematics, Kastoria, Greece.
01.09.22-01.03.23	*Teacher*. Secondary education of Lasithi, Crete, Greece.
01.09.21-31.08.22	*Assegnista di Ricerca*. University of Campania "Luigi Vanvitelli" - Department of Mathematics and Physics, Caserta, Italy.
11.08.21-31.08.22	*Teacher on unpaid annual leave*. Secondary education of Lasithi, Crete, Greece.
01.10.16-31.12.20	*Wissenschaftlicher Mitarbeiter*. University of Mannheim - Institute for Mathematics, Mannheim, Germany.
06.01.13-05.10.15	*Postdoctoral Research Fellow*. Technion: Israel Institute of Technology - Mathematics Department, Haifa, Israel.

Research visits

25.05-08.06.2019	INdAM/GNAMPA Visiting professor (U-FMBAZ-2018-001525 18-12-2018). University of Campania "Luigi Vanvitelli" - Department of Mathematics and Physics, Caserta, Italy.
04.06-03.09.2018	Visiting researcher (D.R. 0950-2017). University of Campania "Luigi Vanvitelli" - Department of Mathematics and Physics, Caserta, Italy.

11.2015-07.2016	Visiting researcher. University of Crete - Department of Mathematics and Applied Mathematics, Heraklion, Greece.

Scholarships

09.2021-08.2022	Research fellowship financed under the intra-University "VAIN-HOPES" competition project - Programma Valere 2019
01.2013-10.2015	Fine Trust Postdoctoral Scholarship (Technion)
11.2008-12.2011	Fellow State Scholarships Foundation of Greece (I.K.Y.) (received after written examinations)
10.2007-09.2008	Maria M. Manassaki bequest scholarship (for excellent performance in postgraduate studies)

Teaching

Autonomous teaching at the University of Western Macedonia (in Greek)

- *Spring 2023* - Infinitesimal Calculus IV, Operator Theory
- *Fall 2023* - Infinitesimal Calculus II, Functional Analysis

Autonomous teaching at the University of Mannheim (in English)

- *Advanced Analysis(MSc)* - Fall 2020
- *Calculus of Variations and Applications(MSc)* - Fall 2019
- *Advanced Analysis(MSc)* - Spring 2019
- *Asymptotic Analysis(MSc+BSc)* - Fall 2018
- *Advanced Analysis(MSc)* - Spring 2018
- *Introduction to Partial Differential Equations(MSc)* - Fall 2017
- *Advanced Analysis(MSc)* - Spring 2017

Teaching assistantship at the University of Mannheim (in English)

- *Asymptotic Analysis(MSc+BSc)* (L. Chen) - Fall 2016

Teaching assistantship as doctoral student (Univ. Crete)

- *Analysis I* (S. Kamvissis) - Applied Math Dept., Winter 2011/12
- *Infinitesimal Calculus I* (T. Mitsis) - Math Dept., Spring 2010/11
- *Instructor in day-long workshop problems* (T. Garefalakis - A. Tertikas) - Math Dept., Winter 2010/11
- *Analysis I* (T. Mitsis) - Math Dept., Spring 2009/10
- *Infinitesimal Calculus III* (T. Mitsis) - Math Dept., Winter 2009/10
- *Analysis II* (T. Mitsis) - Math Dept., Spring 2008/09
- *Analysis I* (T. Mitsis) - Math Dept., Winter 2008/09
- *Infinitesimal Calculus II* (K. Athanassopoulos) - Computer Science Dept., Spring 2007/08

Teaching assistantship as postgraduate student (Univ. Crete)

- *Methods of Applied Mathematics I* (E. Vairaktaris) - Applied Math Dept., Spring 2004/05
- *Introduction in Applied Mathematics I* (V. Stefanopoulos) - Applied Math Dept., Winter 2004/05

Publications (In order of submission date)

- *Blow up of solutions for the heat equation with supercritical nonlinearity.* Postgraduate Thesis (in Greek), University of Crete 2005.
- *Hardy inequalities in general domains.* Doctoral Thesis, University of Crete 2011. `arXiv:1302.3961`
- L^1 *Hardy inequalities with weights.*

Journal of Geometric Analysis 23 (4), 1703-1728, 2013.
- *An optimal Hardy-Morrey inequality.*
  Calculus of Variations and Partial Differential Equations 45 (3-4), 421-441, 2012.
- *A Leray-Trudinger inequality.* (with D. SPECTOR)
  Journal of Functional Analysis 269 (1), 215-228, 2015.
– *On optimal Hardy inequalities in cones.* (with B. DEVYVER and Y. PINCHOVER)
  Bruno Pini Mathematical Analysis Seminar 67-82, 2014.
- *Optimal Hardy inequalities in cones.* (with B. DEVYVER and Y. PINCHOVER)
  Proceedings of the Royal Society of Edinburgh Section A: Mathematics 147 (1), 89-124, 2017.
- *On positive solutions of the (p,A)-Laplacian with potential in Morrey space.* (with Y. PINCHOVER)
  Analysis & PDE 9 (6), 1317-1358, 2016.
- *The Hardy-Morrey & Hardy-John-Nirenberg inequalities involving distance to the boundary.* (with S. FILIPPAS)
  Journal of Differential Equations 261 (6), 3107-3136, 2016.
- *Hardy-Sobolev-Maz'ya and related inequalities in the half-space.*
  Journal of Elliptic and Parabolic Equations 3, 127-134, 2017.
- *A weighted anisotropic Sobolev type inequality and its applications to Hardy inequalities.* (with G. DI BLASIO and G. PISANTE)
  Mathematische Annalen 379 (3-4), 1343-1362, 2021.
- *Limiting case of an isoperimetric inequality with radial densities and applications.*
  Communications in Analysis and Geometry 2022-to appear (draft on hal: 02159701v2)
- *An elementary proof of the one dimensional Poincaré inequality and the Jacobi lemma.*
  (draft on hal: 02873488)
- *Optimal non-homogeneous improvements for the series expansion of Hardy's inequality.* (with K. T. GKIKAS)
  Communications in Contemporary Mathematics 24 (8), 2150031, 2022.
- *On weighted L^p-Hardy inequality on domains in $\mathbb{R}^n$.* (with D. GOEL and Y. PINCHOVER)
  Pure and Applied Functional Analysis 7 (3), 1025-1035, 2022. (Special issue dedicated to SHMUEL AGMON)
- *The optimal Leray-Trudinger inequality.* (with G. DI BLASIO and G. PISANTE)
  Indiana University Mathematics Journal (accepted: 17/05/2023)

Service

Reviewer for MathSciNet (since 10/2015) and zbMATH (since 04/2017)

Reviewed over 90 articles and two books so far.

Referee for articles submitted in:

- Applied and Computational Harmonic Analysis
- Calculus of Variations and Partial Differential Equations
- Complex Analysis and Operator Theory
- Complex Variables and Elliptic Equations
- Czechoslovak Mathematical Journal
- 2× Forum Mathematicum
- 2× Israel Journal of Mathematics
- Journal of Differential Equations
- Journal of Functional Analysis
- Journal of Geometric Analysis

- Journal of Inequalities and Applications
- Journal of Mathematical Analysis and Applications
- Journal of Physics A: Mathematical and Theoretical
- 2× Mathematical Inequalities and Applications
- Mathematical Methods in the Applied Sciences
- 2× Nonlinear Analysis
- Partial Differential Equations and Applications
- Potential Analysis
- 4× Proceedings of the Royal Society of Edinburgh Section A: Mathematics
- Pure and Applied Analysis
- Pure and Applied Functional Analysis
- Revista Matemática Iberoamericana
- Transactions of the American Mathematical Society

Invited talks

- *Optimal Leray-Trudinger inequality.* Summer School in Analysis and PDEs . Dept. of Math. and Physics (DMF), **Univ. Campania "L.V."**, Italy. 06/07/2022
- *An isoperimetric inequality with radial densities.* (virtual). University of Salerno. **Salerno**, Italy. 04/11/2021
- *Some functional inequalities with geometric content* (virtual). University of Ioannina. **Ioannina**, Greece. 20/11/2020
- *Some functional inequalities with geometric content* (virtual). Aristoteleio University. **Thessaloniki**, Greece. 10/06/2020
- *Inequalities of Hardy-Sobolev type that involve the distance to a point.* Università degli Studi di Napoli Federico II. **Naples**, Italy. 18/07/2018
- *Inequalities of Hardy-Sobolev type that involve the distance to a point.* Math Inst. of LMU. **Munich**, Germany. 23/06/2018
- *The Hardy-Morrey and the Hardy-John-Nirenberg inequalities.* Mini-symposium in Nonlinear PDE's and Functional Inequalities (hosted by the International Conference on Elliptic and Parabolic Problems held in Gaeta, Italy, 22-26/05/2017). **Gaeta**, Italy. 25/05/2017
- *Inequalities of Hardy-Sobolev type that involve the distance to the boundary.* Math Inst. of LMU. **Munich**, Germany. 29/01/2017
- *The Hardy-Morrey and the Hardy-John-Nirenberg inequalities.* 15th Panhellenic Conference of Mathematics Analysis. **Heraklion**, Greece. 28/05/2016
- *L^1 vs L^p Hardy's inequality with weights.* A one day workshop on Hardy's inequalities. **Bologna**, Italy. 18/03/2014
- *Remainder terms in various Hardy inequalities.* Nonlinear Analysis Seminar, Mathematical Institute - Univ. of Cologne, **Cologne**, Germany. 30/01/2012
- *The optimal Hardy-Morrey-Sobolev inequality.* A Weekend of Mathematical Analysis for Young Researchers. Univ. of Athens, **Athens**, Greece. 28/11/2010

Seminar talks

- *An isoperimetric inequality with radial densities* (virtual). Students Seminar, Faculty of Mathematics - **Univ. Mannheim**, Germany. **27/04/2020**
- *The Kantorovich duality.* Applied Analysis Seminar, Faculty of Mathematics - **Univ. Mannheim**, Germany. **05/03/2019**, **12/03/2019** and **19/03/2019**
- *Dobrushin's stability theorem and the mean field limit.* Seminar on Kinetic Models, Faculty of Mathematics -

Univ. Mannheim, Germany. **18/11/2016** and **22/11/2016**
- ○ *Critical Sobolev improvements to Hardy inequalities.* Applied Analysis Seminar, Faculty of Mathematics - **Univ. Mannheim**, Germany. **04/10/2016**
- ○ *Critical Sobolev improvements to Hardy inequalities.* Nonlinear Analysis and Optimization Seminar, Faculty of Mathematics - **Technion**, Israel. **27/04/2014**
- ○ *L^1 Hardy's inequality with weights.* PDEs and Applied Mathematics Seminar, Faculty of Mathematics - **Technion**, Israel. **12/03/2013**

Other talks

- ○ *Hardy inequalities in general domains.* Univ. of Crete, **Greece**. 13/12/2011
- ○ *Blow up of solutions for the heat equation with supercritical nonlinearity.* Univ. of Crete, **Greece**. 04/10/2005
- ○ *Curvature of hypersurfaces in $\mathbb{R}^{n+1}$.* Univ. of Crete, **Greece**. 28/06/2005
- ○ *Uniqueness for a scalar conservation law.* Univ. of Crete, **Greece**. 23/06/2004

Conferences, Schools and Workshops (non virtual)

- ○ Mini workshop: *Effective equations for many particle Coulomb system.* Universität Mannheim, **Germany**. 10-11/01/2020
- ○ Workshop: *Analysis of Effective One-Particle Equations and their Derivation II.* Math. Inst., LMU, Munich, **Germany**. 22-23/06/2018
- ○ Conference: *Recent results on quantum many-body systems.* Haus der Bayerischen Landwirtschaft, Herrsching, **Germany**. 07-09/05/2018
- ○ Mini workshop: *Effective equations for many particle Coulomb system.* Universität Mannheim, **Germany**. 15-16/12/2017
- ○ Modern Trends in Structures Forming Systems. Heidelberg, **Germany**. 07-11/08/2017
- ○ International Conference on Elliptic and Parabolic Problems. Gaeta, **Italy**. 22-26/05/2017
- ○ Workshop: *Spectral Days 2017.* Stuttgart, **Germany**. 03-07/04/2017
- ○ Workshop: *Mean Field Description of Fermionic Systems.* Math. Inst., LMU, Munich, **Germany**. 28-29/01/2017
- ○ Workshop: *Effective One-particle Equations for Fermionic Many-particle Coulomb System: Derivation and Properties.* Universität Mannheim, **Germany**. 22-23/10/2016
- ○ Seminar: *Kinetic Models.* Universität Mannheim, **Germany**. Fall 2016
- ○ 15th Panhellenic Conference of Mathematics Analysis. University of Crete, **Greece**. 27-29/05/2016
- ○ *Contemporary Algebra and Geometry in Greece.* Academic Village of Anogeia, Crete, **Greece**. 25-26/05/2016
- ○ *Espalia 2015*: 3 days in PDEs and calculus of variations between Italy and Spain. Sapienza, Università di Roma, Rome, **Italy**. 17-19/06/2015
- ○ Conference on Algebraic Geometry, Braids, Analysis (on the occasion of Prof. Vladimir Lin's 80th birthday). Technion, Haifa, **Israel**. 18-21/05/2015
- ○ International Conference on Complex Analysis and Dynamical Systems VII. Nahariya, **Israel**. 10-15/05/2015
- ○ Summer School: *Getting started with PDE.* Technion, Haifa, **Israel**. 14-18/09/2014
- ○ Workshop: *Analysis of PDEs: Theory, Methods and Applications.* Protaras, **Cyprus**. 30-03/07/2014
- ○ *A one day workshop on Hardy's inequalities.* Bologna, **Italy**. 18/03/2014
- ○ *New Trends in Calculus of Variations and PDEs.* Accademia Pontaniana, Napoli, **Italy**. 21-23/11/2013

- International Conference on Applied Mathematics. Heraklion, **Greece**. 16-20/09/2013
- Workshop: *Convex Geometric Analysis.* Heraklion, **Greece**. 10-13/09/2012
- Workshop: *Continuum and Kinetic Methods in the Theory of Shocks, Fronts, Dislocations and Interfaces.* ACMAC, Heraklion, **Greece**. 20-24/06/2011
- *A Weekend of Mathematical Analysis for Young Researchers.* Department of Mathematics, University of Athens, **Greece**. 26-28/11/2010
- GNAMPA-ERC Summer School: *Analytic Techniques for Geometric and Functional Inequalities.* Ischia, **Italy**. 13-18/06/2010
- Summer School: *PDEs from Geometry.* University of Cologne, **Germany**. 21-25/07/2008
- Conference: *Discontinuous Change in Behavior Issues in PDEs.* Academic Village of Anogia, Crete, **Greece**. 10-16/06/2006

Languages

Greek	Native
English	Proficient
German	Upper Intermediate