Nikolaos Eptaminitakis

Contact Information

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Education

2014-2020: University of Washington, Seattle.
PhD in Mathematics.
Advisers: Prof. C. Robin Graham & Prof. Gunther Uhlmann.

2019, 08-12: Mathematical Sciences Research Institute.
Program Associate, Microlocal Analysis.

2019, 02-03: Stanford University.
Visiting Graduate Student, Department of Mathematics.

2018: University of Washington, Seattle.
MSc., Department of Mathematics.

2009-2013: Aristotle University of Thessaloniki.
B.S., Department of Mathematics.

2012, 04-08: Karlsruhe Institute of Technology (KIT).
LLP-Erasmus Exchange Program, Department of Mathematics.

Employment

2022-present: Wissenschaftlicher Mitarbeiter.
Institut für Differentialgeometrie, Leibniz Universität Hannover.

2020-2022: Golomb Visiting Assistant Professor.
Purdue University.

2019-2020: Lead TA.
Department of Mathematics, University of Washington.
Administrative responsibility for training all incoming TAs, supervising the TA Mentor team, and mentoring new TAs.

2014-2019: Teaching Assistant/Research Assistant.
Department of Mathematics, University of Washington.

Fellowships, Honors and Awards

2019: *Excellence in Teaching Award.*
Department of Mathematics, University of Washington, Seattle.

2018: *Graduate Fellowship.*
Departmant of Mathematics, University of Washington, Seattle.

	2014:	*Academic Merit Award.* Departmant of Mathematics, University of Washington, Seattle.
	2013:	*Nikolaos Danikas Award.* Department of Mathematics, Aristotle University of Thessaloniki.
	2011-2013:	*Thomas Papamichailides Fellowship.* Aristotle University of Thessaloniki.
	2009 & 2011:	*Scholarship of Honor.* State Scholarships Foundation.
	2010:	*Scholarship.* State Scholarships Foundation.
	2009:	*The Great Moment for Education Fellowship.* Eurobank.

Areas of Interest

Inverse Problems, Geometric Analysis, Microlocal Analysis, Partial Differential Equations, Differential Geometry.

PhD Thesis

Geodesic X-ray Transform on Asymptotically Hyperbolic Manifolds.
ProQuest LLC, Ann Arbor, MI, 2020

Publications and Preprints

The covariance metric in the Blaschke locus. With Xian Dai.
Submitted. arXiv:2301.05289

Weakly nonlinear geometric optics for the Westervelt equation and recovery of the nonlinearity. With Plamen Stefanov.
Submitted. arXiv:2208.13945

The Solid-Fluid Transmission Problem. With Plamen Stefanov.
Submitted. arXiv:2111.03218

Stability Estimates for the X-Ray Transform on Simple Asymptotically Hyperbolic Manifolds.
Pure Appl. Anal. 4 (2022), no. 3, 487-516 arXiv:2104.01674

Local X-Ray Transform on Asymptotically Hyperbolic Manifolds via Projective Compactification. With C. Robin Graham.
New Zealand Journal of Mathematics (2021) 52:733-763 arXiv:2111.13631

Asymptotically Hyperbolic Manifolds with Boundary Conjugate Points but No Interior Conjugate Points. With C. Robin Graham.
J. Geom. Anal. (2021) 31:6819-6844., arXiv:1912.04856

Invited Talks

2022, 12/09: *Analysis and PDE Seminar, University of Bonn.*
Title: The Solid-Fluid Transmission Problem.

2022, 11/10: *Geometrical Inverse Problems Workshop, Linz, Austria*
Title: Stability for the X-ray Transform on Asymptotically Hyperbolic Manifolds.

2022, 07/06: *Second Congress of Greek Mathematicians*, Athens, Greece

Title: Inverse Problems for the X-Ray Transform on Asymptotically Hyperbolic Manifolds

2022, 06/13: *Conformal Geometry, Analysis, and Physics, Seattle, WA*

Title: Stability for the X-ray Transform on Asymptotically Hyperbolic Manifolds.

2022, 05/25: *10th International Conference "Inverse Problems: Modeling and Simulation"*, Malta.

Title: *The Solid-Fluid Transmission Problem*.

2022, 03/07: *Geometry Seminar*, University of Texas at Dallas.

Title: *Local Geodesic X-Ray Transform on Asymptotically Hyperbolic Manifolds*.

2022, 02/17: *Zoom International Inverse Problems Seminar*.

Title: *The Solid-Fluid Transmission Problem*.

2021, 12/06: *Spectral and Scattering Theory Seminar*, Purdue University.

Title: *The Solid-Fluid Transmission Problem*.

2021, 03/18: *PDE Seminar*, Purdue University.

Title: Stability for the X-Ray Transform on Asymptotically Hyperbolic Manifolds

2021, 01/26 *Geometry Seminar*, Aristotle University of Thessaloniki.

Title: *Simple and Non-Simple Asymptotically Hyperbolic Manifolds.*

2020, 02/07: *Inverse Problems Seminar*, University of California, Irvine.

Title: *Geodesic X-Ray Transform on Asymptotically Hyperbolic Manifolds.*

2020, 01/30: *Math Colloquium*, Seattle University.

Title: *Radon Transform: Classical Results, Generalizations and Applications*.

2019, 11/11: *Graduate Student Seminar*, Mathematical Sciences Research Institute.

Title: *Geodesic X-Ray Transform on Asymptotically Hyperbolic Manifolds.*

2019, 09/09: *Graduate Student Seminar*, Mathematical Sciences Research Institute.

Title: Simple and Non-Simple Asymptotically Hyperbolic Manifolds

2019, 06/10: *Geometry Seminar*, Aristotle University of Thessaloniki.

Title: *Geodesic X-Ray Transform on Asymptotically Hyperbolic Manifolds.*

2019, 03/05: *Student Analysis Seminar*, Stanford University.

Title: *Geodesic X-Ray Transform on Asymptotically Hyperbolic Manifolds.*

2018, 12/21: *Analysis Meeting*, Aristotle University of Thessaloniki.

Title: *The Radon Transform and Pseudodifferential Operators.*

Selected Teaching Experience

At Leibniz Universität Hannover:

Exercises for Differential Topology

Winter 2022

Exercises for Complex Differential Geometry

Summer 2023

At Purdue University:

MA 30300: Differential Equations and Partial Differential Equations for Engineering and the Sciences

Fall 2021, Spring 2022.

MA 26600: Ordinary Differential Equations.

Fall 2020, Spring 2021 (online).

At University of Washington:

Spring 2018.
Math 324: Advanced Multivariable Calculus.
Summer 2016, Winter 2017, Autumn 2017, Winter 2018, Spring 2020 (online).

Mentoring Experience	Winter 2020	Graduate Mentor for the undergraduate reading project *Topology and Geometry of Surfaces*. Washington Directed Reading Program.

	Autumn 2018 & Spring 2019:	Graduate Mentor for the undergraduate reading project *Mathematics of Medical Imaging*. Washington Directed Reading Program.
	Spring 2017-Winter 2018:	Graduate Mentor for the undergraduate research project *Number Theory and Noise*. Washington Experimental Mathematics Lab.
Departmental Service	2019-2020:	Member of the Undergraduate Program Committee. Department of Mathematics, University of Washington.
Language Skills	Greek (native), English (fluent), German (intermediate), Italian (basic)	