

Curriculum Vitae Tyni, Teemu

August 27, 2024

University of Oulu, Finland
Applied and Computational Mathematics

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Education

University of Oulu

PhD. in Applied mathematics, 2018.

MSc. in Applied mathematics, 2015.

B.S. in Mathematics, 2013.

Dissertation: “Direct and inverse scattering problems for perturbations of the biharmonic operator”

Opponent: Prof. David Colton (Univ. of Delaware, USA)

Current employment

Research Unit of Applied and Computational Mathematics, University of Oulu, Finland

Assistant Professor, July 2023–

Visiting researcher at the University of Helsinki 2023–

Selected previous work experience

Dept. of Mathematics, University of Toronto, Canada

Post-doctoral fellow, August 2021 – June 2023.

Contact: Professor Spyros Alexakis

Dept. of Mathematics and Statistics, University of Helsinki, Finland

Post-doctoral researcher, 2019-2021.

Contact: Professor Matti Lassas

Dept. of Math. Sciences, University of Oulu, Finland

Post-doctoral researcher, 2018-2019.

PhD. student, 2015-2018.

Contact: Professor Valery Serov, Docent Markus Harju

Sodankylä geophysical observatory, Finland

Researcher, 2014

Contact: Professor Lassi Roininen

Dept. of Physics, University of Oulu, Finland

Research assistant at electron spectroscopy group, 2013

Contact: Dr. Lauri Hautala

Research funding

1. My research group is part of the FAME Flagship of Research Council of Finland with funding of 67600€ by Reseach Council of Finland and 43750€ by University of Oulu (2024–2027)

<https://www.aka.fi/en/about-us/whats-new/press-releases/2023/research-council-of-finland-selects-four-new-finnish-flagships/>

2. I was awarded 200000€ research project grant by the Emil Aaltonen foundation (Emil Aaltosen säätiö) in 2023
<https://emilaaltonen.fi/projektiapurahat-2023/>
3. I received 32500€ personal research fund from the Emil Aaltonen foundation (Emil Aaltosen säätiö) in 2021
<https://emilaaltonen.fi/wp-content/uploads/2021/05/saajaluettelo.pdf>
4. I was awarded a four (4) year funding towards the completion of my PhD research in 2015 by Exactus (University of Oulu, Doctoral programme in Exact Sciences). The amount of funding corresponded to full salary for four years. Supervisors: Professor Valery Serov and docent Markus Harju.

Selected recent scientific talks

1. Conference talk at AIP2023 (Göttingen, Germany)
<http://www.aip2023.com/program/>
2. Invited talk at IWOTA2023 (Helsinki, Finland)
<https://www.helsinki.fi/en/conferences/iwota2023/program>
3. Conference talk at IPMS2022 (Malta)
<https://www.ipms-conference.org/ipms2022/conference-program/conference-program>
4. Invited talk at International Zoom Inverse Problems seminar in February 2022, (University of California, Irvine, USA)
<https://sites.uci.edu/inverse/teemu-tyni-university-of-toronto/>
5. Invited talk at Inverse Problems and Nonlinearity online conference in August 2021, (Jyväskylä, Finland)
<https://www.jyu.fi/science/en/maths/research/inverse-problems/inverse-problems-and-nonlinearity-2020>

Master's thesis supervision

MSc. Manu Holmberg, (co-supervisor with prof. Matti Lassas) completed in 2020

Teaching

ITEE., University of Oulu

Lecturer (coordinator), Differential Equations 2024

Lecturer (coordinator), Mathematical structures for computer science 2023

Dept. of Math., University of Toronto

Instructor (Lecturer), Calculus 2 (MAT136) 2022-23

Instructor (Lecturer), Calculus 1 (MAT135) 2021-22

Dept. of Math. and Statistics, University of Helsinki

Teaching assistant, Partial differential equations 2021 (Zoom)

Lecturer, Inverse Problems II: Tomography and regularization 2020

Lecturer, Mathematics everywhere (MOOC) 2020

Lecturer, Latex course (online course) 2020

Lecturer, Recap of high school math. (online course) 2020

Lecturer, Inverse Problems II: Tomography and regularization 2019

Unit of Math. Sciences, University of Oulu

Lecturer, Introduction to LaTeX 2018–19

Teaching assistant, Complex analysis II 2018

Lecturer, Laboratory exercises in physics 1, Intro. to LaTeX 2018–19

Teaching assistant, Operator theory and integral equations 2017

Teaching assistant, Series and the integral 2017

Teaching assistant, Derivative 2016

Teaching assistant, A second course in differential equations 2015

Teaching assistant, Introduction to real functions 2015–16

Teaching assistant, Introduction to mathematical deduction 2015–16

Awards

- I received the Finnish Inverse Prize (2000€) for my PhD work in 2018.
<https://www.fips.fi/fipsprize.php>

Other academic merits

1. I am a member of the board of Finnish Inverse Problems Society
<https://www.fips.fi/governors.php>
2. I am an active referee for the journals: Inverse Problems, Inverse Problems & Imaging, SIAM Journal on Applied Mathematics, and Inverse Problems in Science & Engineering.
3. Organizing conferences:
 - With prof. Hauptmann I am a main organizer of “Inverse Days, 2024” in Oulu.
 - I organized a minisymposium at the “Applied Inverse Problems AIP2023” conference at Göttingen, Germany, 2023.
<http://www.aip2023.com/program/>
 - I organized a minisymposium at the “Inverse Problems: Modeling and Simulations” conference at Malta, 2022.
<https://www.ipms-conference.org/ipms2022/m27>
 - I was part in organizing committee of the online conference “Inverse Problems and Nonlinearity”, Helsinki 2020.
<https://www.jyu.fi/science/en/math/research/inverse-problems/inverse-problems-and-nonlinearity-2020>
 - I took significant part in the organizing committee of the conference “Inverse Days, 2017” in Oulu.