

# Curriculum Vitae

## December 16<sup>th</sup> 2016

### Name and date of birth

Teemu Sakari Saksala

**Citizenship:** Finnish

### Contact information:

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Finland

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### Education and degrees:

Doctor of Philosophy (Applied mathematics) at University of Helsinki,  
expected Fall 2017

Master of science (Mathematics) at University of Helsinki, 2013

Bachelor of science (Mathematics) at University of Helsinki, 2011

### Pedagogic education:

University pedagogic 1, 5 cr, Teaching and Learning at the University

University pedagogic 2, 5 cr, The Planing, Implementation and Evaluation  
of University level teaching

### Language skills:

Finnish: Mother tongue

English: Excellent

Swedish: Basics

### Current position:

Doctoral candidate at University of Helsinki

Advisor: Professor Matti Lassas, University of Helsinki

### Academic positions:

6/2013 – 12/2017 Doctoral candidate, University of Helsinki,  
Department of mathematics and statistics

1/2012 – 5/2013 Assistant teacher on several courses during master studies  
University of Helsinki, Department of mathematics and statistics

6/2012 – 8/2012 Summer trainee, Finnish meteorological institute,  
Marine research division

## Publications and preprints

- Lassas M, Saksala T Determination of a Riemannian manifold from the distance difference functions submitted, arXiv:1510.06157 preprint
- Lassas M, Saksala T Distance difference representations of subsets of Complete Riemannian manifolds submitted, Conference paper
- Helin T, Lassas M, Oksanen L, Saksala T Correlation based passive imaging with a white noise source submitted, arXiv:1609.08022 preprint

## Teaching in the University of Helsinki:

- Spring 2012 Lebesgue measure and Real analysis (intermediate/advanced studies 12cr), study group instructor
- Fall 2012 Introduction to university mathematics (basic studies 5cr), teaching assistant
- Fall 2012 Linear algebra and matrices (intermediate studies 10cr), teaching assistant
- Spring 2013 Topology I (intermediate studies 10cr), teaching assistant
- Spring 2014 Inverse problems (advanced studies 10cr), teaching assistant
- Spring 2015 Basic course in Functional analysis (advanced studies 10cr), teaching assistant
- Fall 2015 Partial differential equations (advanced studies 10cr), **second lecturer 6h** and teaching assistant
- Fall 2016 Spectral theory (advanced studies 10cr), teaching assistant

## Academic positions of trust:

- 2010 – 2011 A member of the board of Department of Mathematics and statistics, University of Helsinki
- 2009– A member of the academic teaching skill's validation committee, Faculty of Science, University of Helsinki
- 2014 – 2017 A member of the board of Department of Mathematics and statistics, University of Helsinki
- 2016 – 2017 A grad student representative in the steering board of the Doctoral school in natural sciences, University of Helsinki
- 2016 The vice chairman of the Association of Doctoral Students at the University of Helsinki
- 2017 Board member of the Association of Doctoral Students at the University of Helsinki

### Invited talks

- 12.05.2015 Inverse problems seminar, University of Helsinki  
"Inverse problem on travel time differences"
- 27.08.2015 Meeting for young mathematician in Finland 2015-conference,  
Aalto university, Finland  
"Seeing inside the Earth. Riemannian manifolds with boundary  
and distance function."
- 21.09.2015 Geometry seminar, University of Jyväskylä, Finland  
"Determination of Riemannian manifold from distance difference functions"
- 27.11.2015 Inverse problems seminar, University College London, UK  
"Determination of Riemannian manifold from distance difference functions"
- 10.12.2015 Inverse days 2015 -conference, Technical university of Lappeenranta, Finland  
"Determination of Riemannian manifold from distance difference functions"
- 21.01.2016 RIMS workshop Spectral and Scattering Theory and Related Topics, RIMS  
Kyoto, Japan  
"Determination of Riemannian manifold from distance difference functions"
- 01.03.2016 Inverse problems seminar, University of Helsinki, Finland  
"How to find a metric tensor from the solution mapping of the wave equation  
on Riemannian manifold?"
- 26.10.2016 Analysis and geometry seminar, Aalto university, Finland  
"How to find a metric tensor from the solution mapping of the wave equation  
on Riemannian manifold?"
- 09.12.2016 Inverse Problems, Imaging and Partial Differential Equations, IAS HKUST  
Hong Kong  
"Determination of Riemannian manifold from distance difference functions"

### Conference organization:

- 04.08. – 08.08.2014 Distinguished lectures in Inverse Problems 2014, Helsinki, Finland  
local organization committee
- 25.05. – 29.05.2015 Applied Inverse Problems 2015, Helsinki, Finland  
local organization committee
- 26.08 – 28.08.2015 Meeting for young mathematician in Finland 2015-conference,  
mini session "What Do the Boundaries Tell Us?"organizer

**Conference attendances:**

- 15.09. – 20.09.2013 Geometry and Inverse Problems, Banff, Canada  
10.12. – 13.12.2013 Inverse days 2013, Inari, Finland  
7.04. – 11.04.2014 Inverse Problems and Imaging, Paris, France  
8.12. – 11.12.2014 Inverse days 2014, Tampere, Finland  
8.06. – 12.06.2015 Geometric Inverse Problems, Paris, France  
8.12. – 10.12.2015 Inverse days 2015, Lappeenranta, Finland  
20.01 – 22.01.2016 RIMS workshop Spectral and Scattering Theory and Related Topics, Kyoto, Japan  
30.5. – 3.6.2016 Dirichlet-to-Neumann Maps: Spectral Theory, Inverse Problems and Applications, Oaxaca, Mexico  
9.11. – 11.11.2016 Carleman estimates, unique continuation and applications and Applications, London, UK  
5.12. – 9.12.2016 IAS Workshop on Inverse Problems, Imaging and Partial Differential Equations, IAS HKUST, Hong Kong

**Other academic visits:**

- 19.08. – 23.08.2013 The 23<sup>rd</sup> Jyväskylä Summer School, Jyväskylä, Finland  
11.08. – 15.08.2014 The 24<sup>th</sup> Jyväskylä Summer School, Jyväskylä, Finland  
13.04. – 17.04.2015 Summer Pre-school on Inverse Problems, CIRM, Marseille, France  
18.05. – 22.05.2015 Applied Inverse Problems summer school, Helsinki, Finland  
15.11. – 28.11.2015 Research visit to Cambridge and London, UK