

Personal information

Name: Rami Luisto, PhD **e-mail:** rami.luisto@gmail.com
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Current employment

2018–2020: Data Scientist at Digital Workforce Services Ltd.

Previous employments

2018–2020: Postdoctoral researcher at the University of Jyväskylä.

2017-2018: Postdoctoral researcher at the Charles University in Prague.

Spring 2017: Postdoctoral researcher at the University of Jyväskylä.

Fall 2016: Visiting assistant professor at the UCLA.

Education and theses (University of Helsinki)

Summer 2016: Doctor of Philosophy. The title of the thesis was "*Interactions between quasiregular- and BLD-mappings*".

Spring 2014: Licentiate of Philosophy, containing 10 cr. of university pedagogics.

Winter 2011: Master of Science in Mathematics. Minor subjects in theoretical physics and methodological sciences.

Grants

2017 & 2018: A travel grant from the Finnish Academy of Science and Letters for a research visit to universities of Stony Brook and Connecticut.

2018: Six month grant from the Association of Finnish Non-fiction Writers. Meant towards writing a general audience book on mathematics.

2017 & 2018: Postdoc pool grant from the Finnish Academy of Science and Letters for a one year postdoc position at the Charles University in Prague.

2014 & 2015: Väisälä foundation scholarship from the Finnish Academy of Sciences for two years starting from September of 2014. The scholarship was for full-time work on completing a PhD.

2015: University of Helsinki Chancellor's travel grant for a five week research visit to the ICMAT *Research Term on Analysis and Geometry in Metric Spaces* in Madrid.

Professional activities

2013-2015: PhD student representative of the executive board of the Doctoral Programme of Mathematics and Statistics (DoMaSt). (University of Helsinki)

2012-2013: PhD student member of the departmental council. (University of Helsinki)

2011-2013: Co-organiser of the students' seminar. (University of Helsinki)

2007-2008: Treasurer of the mathematics student union Matrix ry.

Selected research merits

Seven accepted publications in peer-reviewed journals and four submitted preprints. For a more detailed list see <https://luisto.fi/research.shtml>.

Selected scientific presentations at international conferences

- 15.7.2018 | Geometric Function Theory in Fluid Mechanics, Barcelona.
- 9.7.2018 | Nonlinear Analysis, Function Spaces and Applications, Prague.
- 3.7.2018 | New Developments in Complex Analysis and Function Theory, Heraklion.
- 13.10.2017: | Leipzig-Prague weekend meeting, Labská Stráň, Czech Republic.
- 11.7.2016: | Geometric analysis on Riemannian and singular metric spaces, Como, Italy
- 15.10.2015: | IMPAN, Warsaw, GFT meets GGT -conference.
- 6.5.2015: | ICMAT, Madrid, Research Term on Analysis and Geometry in Metric Spaces.

Selected seminar presentations

- 2017-2018: | Several talks at the Charles University in Prague Function Spaces Seminar.
- 24.4.2018 | UCLA participating analysis seminar.
- 19.4.2018: | Analysis seminar at UIUC, USA.
- 8.12.2017: | Analysis seminar at UIUC, USA.
- 8.&15.11.2016: | UCLA participating analysis seminar.
- 27.4.2016: | École Polytechnique Fédéralé de Lausanne, Seminar.
- 11.2.2016: | Analysis & PDE seminar at Pittsburgh University, USA.
- 4.2.2016: | Analysis seminar at UIUC, USA.

Besides these, a frequent speaker in the following seminars since 2013: University of Jyväskylä Analysis & Geometry Seminars, Aalto University Analysis and Geometry seminar and Helsinki University seminar of geometric analysis.

Selected public lectures¹

- 9.11.2019: | FysikerFest 2019.
Mathematical information in nature and popular culture.
- 13.3.2018: | SIAM SC seminar at the Charles University.
A gentle introduction to (persistent) homology.
- 1.4.2016: | HIIT Kumpula Seminar.
Making things the hard way – Turing complete interior design.
- 17.9.2015: | StS. *Probability theory is nothing but common sense reduced to calculus.*
- 4.12.2014: | StS. *Detecting forged data with mathematics.*
- 12.12.2013: | Askola HS science days. *Sharing passwords and Mathematical robotics.*
- 28.9.2013: | Lecture in the Night of Mathematics in the Heureka science center.
Joukkoäly (The wisdom of crowds)
- 25.4.2013: | StS. *Why is it hard to define a good product in the euclidean space?*
- 15.11.2012: | Askola HS science days. *Mathematical cryptography and Tic-Tac-Toe on a torus.*
- 22.9.2012: | A short appearance in a Finnish TV show called Puoli Seitsemän to calculate some probabilities connected to sports.
- 13.10.2011: | StS. *Monistojen perusrhyhmistä (On the fundamental groups of manifolds).*
- 19.10.2010: | Summammutikka-club. *Alkuluvut ja salaus (Prime numbers and cryptography).*
- 21.10.2009: | StS. *Quasihyperbolic metric.*

¹StS. := Student seminar of the department of mathematics and statistics at Helsinki University.

Teaching

- Spring 2020:** Lectured *Introduction to Functional Analysis* at JYU
- Fall 2019:** Lectured *MATA2500 – Information theory* at JYU
- Spring 2019:** Lectured *MATA174 – Introduction to Mathematical Analysis 4* at JYU
- Spring 2017:** Lectured *MATA128 – Euclidean Geometry* at JYU
- Fall 2016:** Lectured *Math 131B – Analysis II* at UCLA.
- Summer 2016:** Co-lectured the course *Matematiikka tutuksi (Getting familiar with mathematics)* at the Open University of the University of Helsinki.
- Fall 2015:** Co-lectured the (renewed) course *Matematiikka tutuksi (Getting familiar with mathematics)* at the University of Helsinki.
- Fall 2012:** Lectured *Opettajalinjan työpaja (Topologia I)* at the University of Helsinki.
- Summer 2010:** Lectured the course *Matematiikka tutuksi (Getting familiar with mathematics)* at the Helsinki open university.
- 2008-:** Course assistant in various courses since the fall of 2008. Hundreds of hours of contact teaching.
- 2008-2011:** Almost constantly involved with the Summammutikka-center of the Finnish LUMA-center during undergraduate studies. Main assignment was the organisation of the Summammutikka-club, in which the more beautiful aspects of mathematics were presented to high school level students.

Have supervised one master's thesis two bachelor's theses. Was the second reader in further two master's theses.

Pedagogical training and expertise

- 2012-2019:** Basic studies in university pedagogics (25 ECTS credits), University of Jyväskylä.
- 2019:** Pedagogical peer-reviewed article, joint with Juulia Lahdenperä, *Using dialogue teaching to popularise university mathematics* . (In preparation)
- Fall 2016:** Pedagogical article in a magazine for STEM teachers, joint with Juulia Lahdenperä, based on the experiences gained in the experimental co-lectured course "Getting familiar with mathematics". *Dimensio 4/2016, p.53*.
- 8.6.2016:** Conference presentation on Mathematical pedagogics at ISSE and LUMA days 2016, Lahti.

Books

- 2017:** *MAB4 Matemaattisia Malleja* (An e-book for high school mathematical models, in finnish.) Joint with Hanna Hellsten, Lauri Hellsten and Kai Nurmi.
- 2016:** *MAB3 Geometria* (An e-book for high school geometry, in finnish.) Joint with Hanna Hellsten, Lauri Hellsten and Pia Vikberg.

Miscellaneous skills

Using Ubuntu, \LaTeX and emacs on a daily basis, with pictures prepared with PyX, Metapost, TikZ or Gimp. Most programming and scripting needs are satisfied with Python, experience also with Java and Matlab/Octave. Rudimentary knowledge of HTML, CSS and PHP. Geogebra and Desmos are used in almost all teaching, with familiarity with the STACK system in Moodle. Native in Finnish, fluent in English, basic conversational skills in Swedish and German, and basics of Czech. An amateur safe-cracker and lockporter.

Academical excursions

- 11.5.-4.6.2019: Research visit to SBU, University of Pittsburgh and UCONN
 12.4.-2.5.2018: Research visit to UIUC, Illinois and UCLA, California
 26.-28.4.2016: Research visit to École Polytechnique Fédéralé de Lausanne, Switzerland
 29.1.-15.2.2016: Research visit to UIUC, Illinois and University of Pittsburgh
 3.5.-5.6. 2015: Research term on Analysis and Geometry in Metric Spaces, ICMAT, Madrid
 13.-30.5.2013: Interactions Between Analysis and Geometry -program. IPAM, Los Angeles
 18.3.-1.6.2012: Research visit to universities in Ann Arbor, Urbana-Champaign and Purdue

Selected attended conferences

- 25.-29.11.2019 Professor Koskela's 59th birthday conference, Bedlewo.
 16.-20.7.2018 Geometric Function Theory in Fluid Mechanics, Barcelona.
 9.-14.7.2018 Nonlinear Analysis, Function Spaces and Applications, Prague.
 2.-6.7.2018 New Developments in Complex Analysis and Function Theory, Heraklion.
 18.-20.6.2018: Seppo Rickman Memorial Conference, Helsinki
 4.-8.6.2018: Geometric Measure theory and its connections, Helsinki
 13.10.2017: Leipzig-Prague weekend meeting, Labská Stráň, Czech Republic.
 26.-29.6.2017: 10:th School on Analysis and Geometry in Metric Spaces, Trento, Italia
 12.-16.6.2017: Rolf Nevanlinna Colloquium, Zürich
 11.7.-15.7.2016: Geometric analysis on Riemannian and singular metric spaces, Como, Italy
 15.-18.3.2016: 27:th Nordic Congress of Mathematicians, Stockholm
 10.-13.12.2015: Quasiweekend II - Ten years after, Helsinki (Technical assistant)
 14.-17.10.2015: GFT meets GGT, IMPAN, Warsaw
 17.-21.8.2015: 25:th Jyväskylä summer school
 21.-31.5.2015: Conference on Modern Trends in Complex Analysis, Würzburg, Germany
 11.-17.1.2015: Young Geometric Group Theory IV, Spa, Belgium
 11.-22.8.2014: 24:th Jyväskylä summer school
 16.-20.6.2014: Eighth School on Analysis and Geometry in Metric Spaces, Trento, Italia
 24.-28.3.2014: Asymptotic Properties of Infinite Groups, IHP Paris
 27.-31.1.2014: Random walks on groups, IHP, Paris
 9.-10.1.2014: FinEst Math 2014, Helsinki
 30.9.-4.10.2013: School in Geometric Analysis, Como, Italy
 11.-12.8.2013: Fred Gehring Memorial Conference, Helsinki (Technical assistant)
 5.-9.8.2013: Rolf Nevanlinna Colloquium, Helsinki (Technical assistant)
 13.-24.8.2012: 22:nd Jyväskylä summer school
 2.-7.7.2012: 6th European Congress of Mathematics, Krakow
 11.-15.6.2012: Pisa summer school, Pisa
 5.-9.3.2012: Harmonic and Complex Analysis and its Applications, Tenerife.
 4.-5.1.2012: Finnish mathematical days, Lappeenranta, Finland
 20.-24.6.2011: Seventh School on Analysis and Geometry in Metric Spaces, Trento, Italia