

Rami Luisto, PhD

A pure mathematician with the heart of an engineer.



rami.luisto@gmail.com
<https://luisto.fi>
<https://github.com/RamiLuisto>
+358 40 777 6346

MATHEMATICAL RESEARCH

My research in pure mathematics is mainly focused in geometric analysis, metric geometry and geometric topology. The tools vary from functional analysis (BV- and Sobolev mappings, variational approaches) to topological methods (homology groups and degree theory) and all the way to PDE-techniques. A more detailed description of my research can be found from my homepage.

SCIENTIFIC INTERESTS

Besides the publication-level research in mathematics, I have personal interest in computer science (both theoretical and practical), cryptography, information theory and physics. I've given various general audience talks on these topics and last fall I lectured a self-designed course in information theory which allowed me to combine many of these subjects.

WORK EXPERIENCE

CURRENT, FROM AUG 2018

University of Jyväskylä
Postdoctoral Researcher

Returning to a previous location as an established member of the community. Increased teaching loads and further new research collaboration. I advised my first Master's thesis and two Bachelor's theses.

SEP 2017 – AUG 2018

Charles University in Prague
Postdoctoral Researcher

Research position on a PostdocPool grant. The position was purely research-oriented, and I was able to expand my research vistas towards topics in real analysis.

JAN 2017 – AUG 2017

University of Jyväskylä
Postdoctoral Researcher

I was expanding my collaborative network and amassing more teaching experience in a new environment.

SEP 2016 – DEC 2016

UCLA
Visiting assistant professor

First postdoctoral position. I was increasing my independence as a researcher and expanding my research profile. I also lectured my first course abroad – the topic was on Fourier analysis.

Besides these long-term positions, I provide mathematical consulting services via my trade name Luisto Mathematics Consulting.

EDUCATION

- 2012–2016 **Doctor of Philosophy**
Mathematics
University of Helsinki
- 2006–2011 **Master of Science**
Mathematics, minor topic in CS
University of Helsinki

TEACHING

Wide teaching experience

I've lectured eight courses in the universities of Helsinki, Jyväskylä and UCLA. The topics have varied from freshman-level introductory courses to advanced analysis. Besides lecturing I'm the co-author of two high-school math books and have hundreds of hours of contact-teaching experience as a TA at the University of Helsinki.

Pedagogical training

I have a minor in university pedagogics and I have conducted teaching experiments with novel teaching methods. We have an article in preparation with a colleague based on this topic.

COMPUTER SKILLS

- BEGINNER Java, TensorFlow/Keras, Git, Neural networks
- INTERMEDIATE Python, MatLab, HTML, CSS, Inkscape, Gimp, Computer Hardware & Support
- ADVANCED Ubuntu, \LaTeX , emacs

COMMUNICATION SKILLS

Communication with peers

I've given a few dozen talks in various international seminars and conferences. I was also the co-organizer of the graduate student seminar and I've been a technical assistant in some conferences.

Communication with non-specialists

I enjoy popularizing mathematics, and I have given several general audience presentations on topics in mathematics, statistics and theoretical computer science. I've also actively organized outreach activities for high-schoolers interested in science both at Helsinki and Jyväskylä.