CV

1. Personal details

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2. Degrees

2017 **MSc in Physics** – University of Helsinki, Finland
Thesis: *Optimization of contrast agent enhanced CT of the intra-abdominal lymphatic system*
Mentors: Professors Savolainen S., Kortesniemi M.

2014 **BSc in Physics** – University of Helsinki, Finland
Thesis: *Diffusion tensor imaging*
Mentors: Professor Savolainen S.

5. Current employment

Feb 2019 – Dec 2023 (expected) **Doctoral candidate** Department of Mathematics and Statistics, University of Helsinki
Full-time employee in Inverse Problems research

6. Previous work experience

Feb 2018 – Jan 2019 **Technical assistant**, Department of Mathematics and Statistics, University of Helsinki
Full-time employee on the Finnish Centre of Excellence in Inverse Problems business Finland project (TEKES, decision 6614/31/2016)

Sept 2017 – Feb 2018 **Research assistant** – Department of Mathematics and Statistics, University of Helsinki
Introductory tours to the X-ray laboratory, measuring X-ray tomography data sets, popularizing science

8. Research funding and grants

Jan 2019 – Dec 2022 Doctoral Programme in Mathematics and Statistics (Domast) funding for doctoral studies

Nov 2022, 2019 Domast travel grant

9. Research output

Journal articles

2022 Jacek Gondzio, Matti Lassas, Salla-Maaria Latva-Äijö, Samuli Siltanen, Filippo Zanetti, ***Material-separating regularizer for multi-energy x-ray tomography***, Inverse Problems 38, 025013

Scientific talks & Posters

2022 *Spectral X-ray and material decomposition research*, "Advanced Techniques in Optimization for Machine learning and Imaging (ATOMI) Workshop", Rome (Italy)

2021 *Material decomposition with energy-sensitive X-rays*, "Inverse Days 2021" in Tampere, Finland

2019 *Inverse Problems Research in the University of Helsinki and connections to Artificial Intelligence and Health*, "1st Industrial Conference on Artificial Intelligence and Health" in Milan, Italy

2019 *Modified spacetime level set method in dynamic tomography*, Conference on Modern Challenges in Imaging, Tufts University in Medford, Massachusetts, Boston, USA

2022 *Material-separating regularizer for multi-energy x-ray tomography*, "2nd Lanczos workshop" in Dublin, Irland.

2019 *Modified space time level set method for dynamic tomography*, "25th Inverse Days" in Jyväskylä, Finland.

2019 *Modified space time level set method for dynamic tomography*, Workshop on "Enabling Data-Driven Methods for Inverse Problems in 3D Imaging: Uniting Data, People and Algorithms" in Leiden, Netherlands

Open dataset

2018 Salla Latva-Äijö, Alexander Meaney and Samuli Siltanen, *Tomographic X-ray data of time-dependent 3D cross phantom*, [open data set], https://arxiv.org/abs/1809.00166, https://doi.org/10.5281/zenodo.1446516

11. Teaching merits

Nov 2022 – Dec 2022 **Course TA, Inverse Problems: Tomography and Regularization, (University of Helsinki, Department of Mathematics and Statistics)**
Teaching in exercise sessions, helping the students with the exercises and grading the final tests.

Jan 2022 – Mar 2022 **Course TA: Basics of mathematics in machine learning I (University of Helsinki, Department of Mathematics and Statistics)**
Teaching in exercise sessions, helping the students with the exercises and grading the final tests. In laboratory course, instructing the students to the laboratory works and grading their reports.

13. Conferences and workshops

June 2022 Advanced Techniques in Optimization for Machine learning and Imaging (ATOMI) Workshop, Rome (Italy)

Apr 2022 2nd Lanczos Workshop: CONTINUOUS AND DISCRETE ITERATIVE METHODS FOR IMAGE AND SIGNAL RECONSTRUCTION workshop, Dublin, Ireland

June 2019 Helsinki Finnish Inverse Problems Summer School 2019
Helsinki, Finland

15. Relevant skills

Language skills

Finnish (native), English (near native), Swedish (basic), German (basic).

Programming languages

Proficient in: Matlab, Octave, LaTeX

Familiar with: Java, Python, SQL, Git, Jupyter Notebook