Curriculum vitae (CV date January 17th, 2025)

1. Personal information

- Family name, First names: Paunonen, Lassi Tapio
- Date of birth: 29.1.1982
- Nationality: Finnish
- ORCID ID: 0000-0001-6497-4718 (URL: https://orcid.org/0000-0001-6497-4718)
- Professional website: https://lassipaunonen.wordpress.com/
- Date of CV: January 17th, 2025.

2. Degrees

- **9.11.2011** Doctor of Science in Technology (Mathematics, "with Distinction"), Tampere University of Technology (TUT), Finland.
- **18.4.2007** Master of Science (Mathematics, "with Distinction"), TUT, Finland.
- **1.5.2016–** Title of docent in "Mathematical Analysis and Systems Theory", Tampere University, Finland.

4. Language skills

- Finnish: Native
- English: Advanced skill level in reading, writing, speaking, and listening
- Swedish: Basic skill level (standard Finnish university level language courses)
- French: Basic skill level (basic language courses at the university and community college)

5. Current employment

- **1.11.2024–** Full professor in Mathematics, Tampere University (TAU), Finland. Research career stage IV. Leader of the Mathematics Research Centre at TAU.

6. Previous work experience

- **1.7.2016–31.10.2024** Assistant/Associate professor in Mathematics, Tampere University (TAU), Finland. Research career stage III.
- **1.7.–31.8.2019** Academic visitor, Institute of Mathematics at University of Oxford, UK
- **1.1.2012–30.6.2017** Postdoctoral researcher, Department of Mathematics, Tampere University of Technology (TUT), Finland
- **3.1.–15.7.2017** Academic visitor, Institute of Mathematics at University of Oxford, UK
- **24.2.–25.3.2016** Academic visitor, Institute of Mathematics at University of Oxford, UK
- **25.2.–21.4.2015** Academic visitor, Institute of Mathematics at University of Oxford, UK
- **1.5.2007–31.12.2011** Postgraduate student (Researcher), Department of Mathematics, TUT, FI
- **7.3.–30.9.2011** Visiting PhD student, Department of Mathematics, University of Twente, NL
- **16.5.2006–30.4.2007** Research assistant, Department of Mathematics, TUT, FI

8. Research funding and grants

Major research funding (as Principal Investigator):

- Academy of Finland Project "Stability and Control of Hyperbolic Partial Differential Equations" (1.9.2022–31.8.2026), total funding 500,434€.
- Academy of Finland Project "Robust Control of Distributed Parameter Systems" (1.9.2017–31.8.2021), total funding 488,679€.
- Academy of Finland Postdoctoral Researcher Funding (1.9.2016–31.8.2019), total funding 280,106€.
- Finnish Ministry of Education Asia Programme Project "International e-Learning of Mathematical Modeling" (1.9.2016–31.8.2018), total funding 40,968€.

Minor research grants (total 26,424€)**:**

- Vilho, Yrjö ja Kalle Väisälä Foundation travel grant: 2,340€ (in 2021)
- Institute Francais de Finlande Maupertuis travel grant: 1000€ (in 2021)
- Finnish Society of Automation Foundation travel grants: 20,358€ (10 grants, 2013–2023)
- Mathematics for Industry Network COST Action travel grant: 1,605€ (in 2016)
- Vilho, Yrjö ja Kalle Väisälä Foundation travel grant: 1,200€ (in 2014)
- Vilho, Yrjö ja Kalle Väisälä Foundation personal research grant: 5,000€ (in 2011)
- Magnus Ehrnrooth Foundation, personal research grant: 1,000€ (in 2011)

9. Research output

- Published 48 journal articles and 38 peer-reviewed conference proceedings articles.
- Publication list available at https://paunonenmath.com/publications.html

- 768 citations, h-index 14 (Scopus 17.1.2025).
- Project leader in open source software “RORPack” (github.com/lassipau/rorpack/) and “RORPack for Matlab” (github.com/lassipau/rorpack-matlab/)

10. Research supervision and leadership experience

- Leader of the Systems Theory Research Group at TAU since July 2016. Currently including 1 PhD student, 2 postdoctoral researchers, and 2 university teachers.
- Principal supervisor of 4 completed PhD degrees (completed in 2019, 2022, 2023, 2024) and 1 current PhD students (since 2025), Tampere University (TAU), FI. Co-supervisor of 1 completed PhD degree (completed in 2023).
- Supervisor of 6 Postdoctoral researchers (2016–2018, 2017–2019, 2018–2020, 2019–2021, 2022-,2024-).
- Supervisor of 10 completed MSc/MPhil theses.

11. Teaching merits

- Lecturer and organizer of Master’s and PhD level courses “Advanced Functional Analysis” (‘19, ’22, ‘24), “Mathematical Control Theory” (2016, '19, '21, '23), “Introduction to Functional Analysis” (2016, 2017, ‘21, ‘22, ‘23, ‘24).
- Lecturer and organizer of Bachelor’s level courses Matrix Algebra (2012, 2013, 2014, 2015), Honours Mathematics 4 (2014), Engineering Mathematics 4 (2013), Introduction to Scientific Computing (2006).
- Invited lecturer at “ICTP-EAUMP School on Modern Functional Analysis”, Nairobi, Kenya, June–July 2017.
- Authored lecture notes: "Introduction to Functional Analysis" (2021), "Advanced Functional Analysis" (2019), "Partial Differential Equations in Mathematical Modeling" (2017), "Mathematical Control Theory" (2016), "Matriisilaskenta (Matrix Algebra)" (2012, with S. Pohjolainen), openly available on professional website.
- Video lectures: Series “Modeling with PDEs” (6 × 10min, 2017) and “Introduction to Functional Analysis” (19 × 15min, 2021), openly available in Youtube.
- Funding for teaching development: PI of a MoEC project (2016–2018, 40,968€) (see "Research funding").
- Pedagogical training (university level):
  - Course “YPP1a – Theoretical foundations of university teaching and learning” (5 ECTS, in 2012).
  - Course “YPP3 – Evaluation of learning” (5 ECTS, in 2017).

12. Awards and honours

I was included in the Stanford University's list "World's Top 2% Scientists" in 2022 (list available at https://elsevier.digitalcommonsdata.com/datasets/btchxktzyw/4)

Our paper "*Accelerating Neural ODEs Using Model Order Reduction*" received an honorary mention in the contest of the best paper of 2022 of the Faculty of Medicine and Health Technology of Tampere University.

I received the *Department of Mathematics at Tampere University of Technology Award for Outstanding Publication* in 2012, 2013 and 2014 (3 awards).

13. Other key academic merits

External examiner of PhD thesis manuscripts and membership of thesis committees:

- Candidate Shantanu Singh, Tel Aviv University, Israel, 2023.
- Candidate Pei Su, Université de Bordeaux, France, 2021.
- Candidate Andrea Mattioni, Université Bourgogne Franche-Comté, France, 2021.
- Candidate Vaibhav Kumar Singh, Indian Institute of Technology Bombay, India, 2021
- Candidate Abraham Chi Shun Ng, University of Oxford, United Kingdom, 2020.
- Candidate Xiaodong Xu, University of Alberta, Canada, 2017.
- Candidate Rachid Saij, Cadi Ayyad University, Morocco, 2015.

Memberships and positions in scientific societies:

- **Chair** of the IEEE Control System Society Technical Committee on Distributed Parameter Systems. (Chair since 2023, committee member since 2016).
- **Management Committee Member** (since 2019) of EU COST Action CA18232 – “Mathematical models for interacting dynamics on networks”. PI Marjeta Kramar-Fijavz, University of Ljubljana.
- **Steering Committee Member** (since 2016) of the “Workshop on Control of Distributed Parameter Systems”.
- Administrative positions in higher education institutions:
  - Member (since 2022) of the **Steering Group of the Unit of Computing Sciences**, Tampere University.
  - Member (since 2019) of the **Committee of the Faculty Doctoral Programme**, Tampere University.

Memberships in editorial boards:

- Associate Editor for the 22nd IFAC World Congress 2023 (Committee "2.6 Design Methods - Distributed parameter systems")
- Associate Editor for the IEEE Transactions on Automatic Control (2024–2025).

Reviewer for scientific journals and conference proceedings:

- Reviewer of roughly 30 journal submissions (for IEEE Transactions on Automatic Control, SIAM Journal on Control and Optimization, Automatica, etc) during 2011–2023.
- Reviewer of roughly 15 conference proceedings submissions during 2014–2023.

Invited presentations and lectures:

- 18 invited presentations in international conferences (since 2008) and 1 invited plenary lecture (2022).
- 10 invited research lectures (since 2011).

14. Scientific and societal impact

- Promoting open science with open-source software packages (RORPack, RORPack for Matlab)
- Publication of openly available Youtube video research presentations: 10 presentation videos during 2021-2025.
- Publication of openly available Youtube video lecture series on functional analysis and mathematical modelling: “Modeling with PDEs” (6 × 10min videos in 2017) and “Introduction to Functional Analysis” (19 × 15min videos in 2021)