

## CURRICULUM VITAE

### *Personal details and date of CV*

**Surname:** Klén

**First names:** Riku Petteri

**ORCID:** 0000-0002-0982-8360

**ResearcherID:** G-4339-2016

**Date of CV:** 8.9.2025



### *Degrees*

15.12.2014, Title of Docent, Mathematics, University of Turku, Turku, Finland

7.4.2009, Doctor of Philosophy, Mathematics, University of Turku, Turku, Finland

14.6.2007, Licentiate of Philosophy, Mathematics, University of Turku, Turku, Finland

26.3.2004, Master of Science, Mathematics, University of Turku, Turku, Finland

### *Current employment*

1.2.2024-31.1.2028, Associate Professor of Imaging Instrumentation and Detection Technologies, Turku PET Centre, University of Turku, Finland

1.1.2011-, Associate member of the Finnish Matriculation Examination Board, Ministry of Education and Culture (Finland)

1.4.2020-, Chief scientific officer, Ai2Ai Ltd.

Stage of academic research career on the four-stage (I–IV) research career model: III

### *Previous work experience*

1.3.2019-31.1.2024, Assistant Professor, Turku PET Centre, University of Turku, Finland

1.4.-30.6.2020, 1.10.2021-31.5.2022, Chief scientific officer, Ai2Ai Ltd.

1.8.2016-28.2.2019, Postdoctoral researcher, Turku Centre for Biotechnology, University of Turku

1.1.2010-31.7.2016, Postdoctoral researcher, Department of Mathematics and Statistics, University of Turku, Finland

November 2015-May 2016, Postdoctoral researcher, Massey University, Auckland, New Zealand

January 2014-May 2014, Postdoctoral researcher, Massey University, Auckland, New Zealand

1.9.2009-31.12.2010, Postdoctoral researcher, Turku PET Centre, University of Turku and Åbo Akademi University, Finland

1.9.-31.12.2009, Postdoctoral researcher, Department of Mathematics and Statistics, University of Jyväskylä, Finland

1.8.-31.8.2009, Postdoctoral researcher, Department of Mathematics, University of Turku, Finland

1.1.-31.7.2009, Postdoctoral researcher, Turku PET Centre, University of Turku, Finland

1.1.2008-31.7.2009, Researcher trainee, Department of Mathematics, University of Turku, Finland

1.-31.10.2008, Assistant, Department of Mathematics, University of Turku, Finland

1.9.2005-31.12.2007, Researcher, Department of Mathematics, University of Turku, Finland

1.9.2004-31.8.2005, Researcher, Turku PET Centre, University of Turku, Finland

1.9.-30.11.2003, Lecturer, Department of Mathematics, University of Turku, Finland

1.5.-31.8.2003, Researcher trainee, Turku PET Centre, University of Turku, Finland

Most of the positions are part-time due to overlapping positions and family leaves. In addition to the aforementioned positions, I have worked as a short-term substitute mathematics teacher in high schools since 2004.

## *Research funding and grants*

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2020, Project funding, Hospital District of Southwest Finland, 30.000 euros, PIs: Juhani Knuuti, Riku Klén, Luis Juarez-Orozco

2020, Project funding, State Research Funding TUCH, 9.770 euros, PI: Riku Klén

2020, Project funding, Hospital District of Southwest Finland, 13.300 euros, PI: Riku Klén

2021, Project funding, Finnish Cultural Foundation, 28.000 euros, PI: Riku Klén

2021, Project funding, Jenny and Antti Wihuri Foundation, 30.000 euros, PI: Riku Klén

2021, Project funding, State Research Funding TUCH, 8.466 euros, PI: Riku Klén

2022, Project funding, BlueSkies, University of Turku, 30.000 euros, PI: Riku Klén

2022, Project funding, State Research Funding TUCH, 6.942 euros, PI: Riku Klén

2022, Project funding, Finland-China Food and Health Network, University of Turku, 28.000 euros, PI: Riku Klén

2023, Project funding, State Research Funding TUCH, 7.000 euros, PI: Riku Klén

2023, Project funding, Hospital District of Southwest Finland, 10.100 euros, PI: Riku Klén

2023, Project funding, Finnish Foundation for Cardiovascular Research, 20.000 euros, PI: Riku Klén

2023, Project funding, Finland-China Food and Health Network, University of Turku, 20.000 euros, PI: Riku Klén

2024, Project funding, State Research Funding TUCH, 8.466 euros, PI: Riku Klén

2024, Project funding, Hospital District of Southwest Finland, 13.000 euros, PI: Riku Klén

2024, Project funding, BioCity Turku, 10.000, PI: Riku Klén

Beneficiary of the following grants due to collaboration

2020-2022, Project funding, Erasmus+, Knowledge Alliances Erasmus, 16.303 euros (from 119.233 euros UTUshare), PI: University of Salamanca, participant in one of 9 consortium partners

2020, Finnish Foundation for Cardiovascular Research, 120.000 euros, PI: Juhani Knuuti

2021, Cancer Foundation Finland, 100.000 euros, PI: Jukka Kemppainen

2022-2026, Academy of Finland, 500.000 euros, PI: Juhani Knuuti

2024-2025, University of Turku (Signature funding), 50.000, PI: Riku Klén

2024-2027, European Research Council, 848.700 euros (total 6.419.025 euros), PI: Riku Klén

2025, University of Turku (Signature funding), 30.000 euros, PI: Riku Klén

2025, DigiFinland, 300.000 euros, PI: Jukka Kemppainen

I have obtained travel grants in total for about 18.000 euros. I have helped Professors Matti Vuorinen, Peter Hästö, Laura Elo and Juhani Knuuti to prepare funding applications to various funding sources including Academy of Finland and European Research Council.

## *Research output*

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I have been involved in the development of various scientific methods (25 open GitHub methods with username rklen) including algorithms for image segmentation and analysis, kinetic modelling of PET images, statistical tests and machine learning.

## *Research supervision and leadership experience*

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I have supervised 4 doctoral students: Xioahui Zhang (2013), Gendi Wang (2013), Parisa Hariri (2018) and Jani Lindén (2024). I am the supervisor of 10 doctoral researchers: Circe Carr, Seyed Hosseini, Ayse Kosal, Jari Lahti, Anting Li, Joonas Lienes, Mehrad Mahmoudian, Mikael Niemi, Monire Vatandous, Kaushalya Ramanayake Mudiyansele. I have supervised 32 MSc students.

From 2017 until 2019 I acted as a team leader of Machine Learning and Imaging team at the Medical Bioinformatics Centre, Turku Centre for Biotechnology. The team consisted of 6 people including me: one post-poc researcher and 4 doctoral candidates.

From 2019 I have been PI of Instrumentation and Image Processing research group at Turku PET Centre. The group consists of 20 members: 6 postdoctoral researcher, 10 doctoral students and 2 undergraduate students.

From August 2019 I have been the director of MSc program Biomedical Imaging (BIMA) at University of Turku. From May 2022 I have been the head of the MSc degree programme in Biomedical Sciences.

### *Teaching merits*

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I have completed Pedagogical Studies (60 ECTS) 18.6.2004 at University of Turku, Faculty of Education.

I have lectured on over 60 courses at University of Turku (Finland), University of Helsinki (Finland), University of Oulu (Finland), and Massey University (New Zealand). I have planned and been responsible teacher in many of them. Two of the courses have been MOOCs (massive open online courses). I am an author of two books: Harjulehto-Klén-Koskenoja: Analyysiä reaaliluvuilla (~350 pages, textbook used in Finnish universities for the first year Mathematical Analysis) and Hariri-Klén-Vuorinen: Conformally Invariant Metrics and Quasiconformal Mappings (~500 pages, scientific textbook).

The courses I have lectured include:

Course name	Year	University	Scope
Neuroimaging course (one lecture)	2025	Turku	5 ECTS
Laboratory Internship to Learn Basic Research Methods...	2024	Turku	5-15 ECTS
Signal and Image Processing (two lectures)	2024	Turku	5 ECTS
PET Basics (one lecture)	2024	Turku	2 ECTS
Neuroimaging course (one lecture)	2024	Turku	5 ECTS
Statistical Data Analysis	2023	Turku	5 ECTS
Statistics in Biomedical Sciences (autumn)	2023	Turku	2 ECTS
Medical Imaging Project Work (co-organised)	2023	Turku	5-6 ECTS
BIMA Thesis Plan, Seminar and Practical Laboratory Work	2023	Turku	20 ECTS
Laboratory Internship to Learn Basic Research Methods...	2023	Turku	5-15 ECTS
Neuroimaging course (one lecture)	2023	Turku	5 ECTS
PET Scientific Seminar	2023	Turku	1 ECTS
PET Basics (one lecture)	2023	Turku	2 ECTS
Statistical Data Analysis	2022	Turku	5 ECTS
Statistics in Biomedical Sciences (autumn)	2022	Turku	2 ECTS
Signal and Image Processing (one lecture)	2022	Turku	5 ECTS
Statistics in Biomedical Sciences (spring)	2022	Turku	2 ECTS
PET Basics (one lecture)	2022	Turku	2 ECTS
Jump to Medical Research in the UTU (one lecture)	2022	Turku	2 ECTS
App. of AI in Diagnostics, Drug Disc. and Imag. (one lecture)	2022	Turku	2 ECTS
Medical Imaging Project Work (co-organised)	2022	Turku	5 ECTS
BIMA Thesis Plan, Seminar and Practical Laboratory Work	2022	Turku	20 ECTS

Laboratory Internship to Learn Basic Research Methods...	2022	Turku	5-15 ECTS
PET Scientific Seminar	2022	Turku	1 ECTS
Bioimage informatics I (one week)	2021	Turku	5 ECTS
App. of AI in Diagnostics, Drug Disc. and Imag. (one lecture)	2021	Turku	2 ECTS
Modelling project (one group)	2021	Turku	8-12 ECTS
Capstone (one group)	2021	Turku	10 ECTS
Statistics in Biomedical Sciences	2021	Turku	2 ECTS
PET Basics (one lecture)	2021	Turku	2 ECTS
Medical Imaging Project Work (co-organised)	2021	Turku	5 ECTS
BIMA Thesis Plan, Seminar and Practical Laboratory Work	2021	Turku	20 ECTS
Laboratory Internship to Learn Basic Research Methods...	2021	Turku	5-15 ECTS
App. of AI in Diagnostics, Drug Disc. and Imag. (one lecture)	2020	Turku	2 ECTS
Bioimage informatics II (one week, Jobitti)	2020	Turku	5 ECTS
Medical Imaging Project Work (co-organised)	2020	Turku	5 ECTS
BIMA Thesis Plan, Seminar and Practical Laboratory Work	2020	Turku	20 ECTS
Laboratory Internship to Learn Basic Research Methods...	2020	Turku	5-15 ECTS
Machine learning seminar	2019	Turku	-
Bioimage informatics I (one week, Jobitti)	2019	Turku	5 ECTS
Modelling project (one group)	2019	Turku	8-12 ECTS
JoMA course Geometry and programming (co-organised)	2019	Oulu	2 ECTS
Bioinformatics Journal Club (co-organised)	2019	Turku	-
Geometry and Programming (co-organised)	2018	Helsinki	-
Systems biology (one lecture)	2018	Turku	4 ECTS
EDUFI Winter school (one day)	2018	Helsinki	-
Geometry and Programming (co-organised)	2018	Turku	-
Statistical Analysis of Biochemical (co-organised)	2017	Turku	1 ECTS
Geometry and Programming (co-organised)	2017	Turku	-
Survival Analysis and Cox Model	2017	Turku	2 ECTS
Algebraic Topology	2016	Massey	5 ECTS
Didactical thesis project (co-organised)	2015	Turku	-
Mathematical software in teaching	2015	Turku	5 ECTS
Mathematical demonstrations (co-organised)	2015	Turku	5 ECTS
Modelling project (one group)	2015	Turku	10 ECTS
Scientific computing I	2015	Turku	4 ECTS
Mathematical software in teaching	2014	Turku	5 ECTS
Mathematical demonstrations (co-organised)	2014	Turku	5 ECTS
Mathematical software in teaching	2013	Turku	5 ECTS
Mathematical teaching material	2013	Turku	2 ECTS
Mathematical software in teaching	2012	Turku	5 ECTS
Mathematical demonstrations (co-organised)	2012	Turku	5 ECTS
Mathematical software in teaching	2011	Turku	5 ECTS
Modelling project (one group)	2011	Turku	10 ECTS
Mathematical software in teaching	2010	Turku	5 ECTS
Seminar for mathematics teachers	2010	Turku	2 ECTS

During years 2010-2014 I have organised analysis seminar at University of Turku with ~120 speakers from Finland and abroad. In 2018-2019 I have organised two seminars at Turku Centre for Biotechnology and in 2019-2020 a seminar at Turku PET Centre. I have organised Turku PET Centre scientific seminar series 2022-2023.

The Knowledge Alliances Erasmus+ funding was received for the development of teaching.

### *Awards and honours*

Honorable Mention in International Mathematics Competition for University Students 2004 in Skopje, Macedonia.

### *Other key academic merits*

Memberships at University of Turku. Member of Biomedical Science steering group from August 2019 and leader since May 2022. Member of BIMA steering group from August 2019. Member of international basic education committee and steering group of basic education and continuous learning. Member in two doctoral dissertation committees. Member of Scholarship Committee for International Degree Programmes. Member of Future technologies and digital society executive committee.

Member in organising committee of Turku PET Symposium in 2022 and 2025. Volunteer in Turku PET Symposium three times. One of the two main organisers of International Conference on Complex Analysis and Related Topics, The 12th Romanian - Finnish Seminar (~120 mainly international participants), 16.-21.8.2009, secretary of organizing committee.

Referee of over 70 scientific articles including Med. Phys. Biol., Trans. Amer. Math. Soc. and Ann. Acad. Sci. Fenn. Math. Written 21 written reviews of the American Mathematical Society.

Guest editor of special issue "Methods, Applications and Developments in Positron Emission Tomography" of journal Applied Sciences, special issue "Deep Learning in Cardiology" of journal Diagnostics, and special issue "AI-Driven Integration of Multimodal Imaging and Clinical Data for Long COVID: Mapping Brain-Behavior Associations and Treatment Outcomes" of journal Brain sciences.

Invited speaker in Finnish Mathematical Days 2010, 4-5.1.2010, Jyväskylä, Finland, and in AI & Informatics in Nuclear Medicine Symposium 2023, 9-11.10.2023, Groningen, the Netherlands.

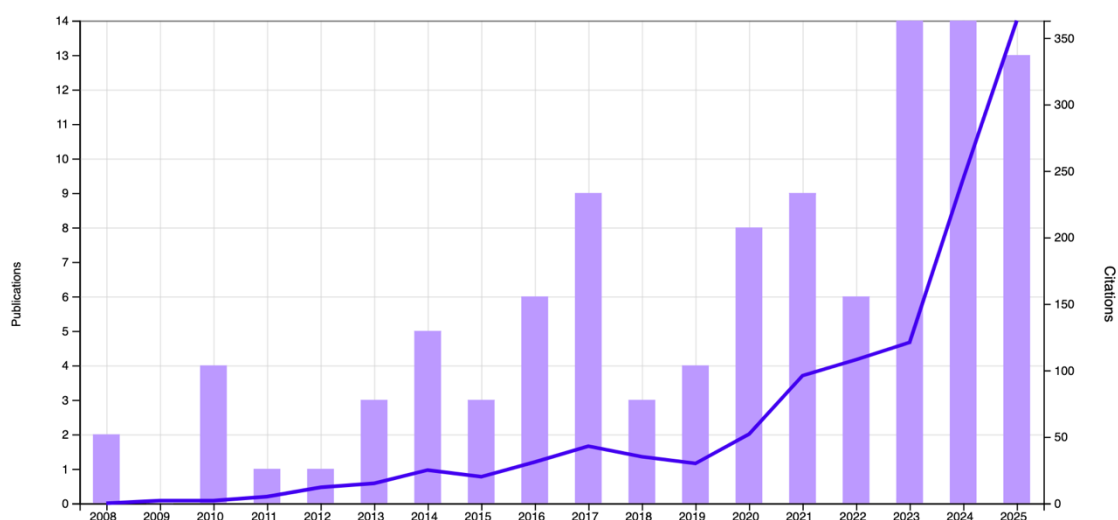


Figure 1. Number of publications and citations based on Web of Science.

### *Scientific, societal impact and other merits*

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My work has been cited 1205 times in Web of Science (139 documents), 1583 times in Scopus (131 documents), 386 times in MathSciNet (37 documents) and 2423 times in Google scholar (161 documents). Impact of research based on Web of Science as publications and citations is depicted in Figure 1.

Associate member of the Finnish Matriculation Examination Board since 2010. Member of exam composer team for 7 years.

Participated biannually in national television broadcast *Abitreenit* as an expert in Mathematics since 2017 (12 times, 1.5 hours live broadcast).

Military service as conscript at the Utti Jaeger Regiment (1999, paratrooper) and at Air Force Academy (1999–2000, fighter pilot).

### *Link to the complete CV*

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[users.utu.fi/ripekl/klen\\_CV.pdf](https://users.utu.fi/ripekl/klen_CV.pdf)