

Personal details and date of CV

Järvi, Leena Johanna (Orchid ID: 0000-0002-5224-3448)

Date of CV: 24 April 2026

Degrees

20.11.2009, PhD in meteorology; 27.1.2006, MSc in meteorology, University of Helsinki (UHEL), Yliopistonkatu 3, 00014, Finland, tel: 02 94191

Title of Docent: 25.2.2014, meteorology, UHEL, Finland

Current employment

1.5.2022 onward, Professor in Urban Meteorology, Institute for Atmospheric and Earth System Research and Helsinki Institute of Sustainability Science, Faculty of Science, UHEL, Finland.

Previous work experience

1.5.2018-30.4.2022, Associate professor in Applied Urban Meteorology, UHEL, Finland; 1.6.2014-30.4.2018, University Researcher, UHEL, Finland; 1.11.2010-31.5.2014, Research Council of Finland Postdoctoral Researcher, UHEL, Finland; 1.11.2009-31.10.2010, Postdoctoral Research Associate, King's College London, UK; 1.2.2006-31.10.2009, Doctoral student, UHEL, Finland.

Career breaks

Parental leave 1.9-31.12.2018. Partial (50%) parental leave 1.2-31.7.2019.

Research funding and grants

In total 4.3 Me of research funding as PI/co-PI. Only major funding (>100 000 e) are listed below.

- 1.9.2025-31.8.2031, research consortium *Emerging chemical pathways in future urban air quality* (RESTART), Jane and Aatos Erkko foundation, 585 500 e, co-PI, PI: H. Vehkamäki (total budget: 1 171 000 e)
- 1.9.2024-31.8.2028, research consortium *Greenhouse dynamics of urban green space* (GHUGS), Research Council of Finland, 449 754 e, PI (total budget 781 426 e)
- 1.9.2020-31.8.2026, research consortium *Individuals, communities and municipalities mitigating climate change by carbon smart green space* (CO-CARBON), Strategic Research Council, 1.24 Me e, PI (total budget 6.4 Me)
- 1.10.2021-30.9.2025, research consortium *Pilot Application in Urban Landscapes - towards integrated city observatories for greenhouse gases* (PAUL), EU framework H2020, 395 750 e, co-PI, PI: W. Kutch (total budget 12.8 Me)
- 1.1.2022-31.12.2024, research consortium *Artificial Intelligence for Urban Low-Emission Autonomous Traffic* (AIforLESAuto), Research Council of Finland, 420 352 e, co-PI, PI: L Ruotsalainen (total budget 2.4 Me)
- 1.9.2020-31.8.2024, research consortium *Sustainable urban development emerging from the merger of cutting-edge Climate, Social and Computer Sciences* (CousCUOS), Research Council of Finland, 329 845 e, co-PI, PI: L Ruotsalainen (total budget 2.4 Me)
- 1.9.2019-31.8.2023, research consortium *Individuals, communities and municipalities mitigating climate change by carbon smart green space* (CarboCity), Research Council of Finland, 288 676 e, PI (total budget 599 598 e)
- 1.1.2011-1.12.2013, postdoctoral research project, Research Council of Finland, 239 480 e, PI

Research output

94 peer-reviewed publications; Main developer of the SUEWS (Surface Urban Energy and Water balance Scheme) model; Creation of post-processed eddy covariance fluxes to open databases such as ICOS Carbon Portal.

Research supervision and leadership experience

Research supervision (UHEL): In total of 13 PhD students (10 main, 3 co-supervisor) at the Doctoral Program in Atmospheric Sciences, 18 MSc students (15 main, 3 co-supervisor) at the Master Program in Atmospheric Sciences, 2 MSc student in the Master Program in Environmental Change and Global Sustainability (1 main, 1 co-supervisor), 2 MSc students in the Master program in Urban Studies and Planning (2 main supervisor), and 9 bachelor students (8 main, 1 co-supervisor) at the meteorology bachelor's degree line.

Leadership in research: Leader of urban meteorology research group, currently 4 postdoctoral researchers (in total 10 instructed), 5 PhD and 2 undergraduate students. Consortium PI in CO-CARBON (2020-26), GHUGS (2024-28) and CarboCity (2019-23), and co-PI in AlforLESAuto (2022-24) and CousCOUS (2020-24); WP leader in H2020 funded PAUL (2021-25) and ACTRIS-2 (2015-19).

Teaching merits

Pedagogical training: University pedagogies I, UHEL, 10 ECTS, 2012

Planned and lectured courses (UHEL): 2020-26 Urban Climate (every 2 years, 5 ETC); 2025 Meteorological Observations Systems, 2023-25 Physical Climatology (3 ETC); 2023-25 Basics of Climatology (2 ECTS); 2017, 24-25 Atmospheric and Earth Sciences Today (5 ETC); 2016-23 Boundary Layer Physics (5 ETC); 2021 Turbulence Theory (5 ETC); 2014-15 Physics and theoretical physics laudatur seminars (5 ETC); 2011-14 Dynamic meteorology (5 ETC).

Awards and honours

2026 Sergej Zilitinkevich Memorial Award, European Meteorological Society; 2021 Timothy Oke Award, International Association for Urban Climate

Other key academic merits, such as

- 2026-2029, Deputy member of the Faculty Council of the Faculty of Science
- 2025, Evaluator for Helmholtz Distinguished Professorship
- 2014-present, PI of ICOS (*Integrated Carbon Observation System*) station FI-Kmp
- 2008-present, Referee for 39 scientific publications in 19 journals
- 2019-2024, Editorial Board Member for *Scientific Model Development*
- 2024, Invited lecture, AGU Fall meeting, 9-13.12.2025, Washington DC, US
- 2024, External examiner of a doctoral thesis, University of Groningen, Netherlands
- 2023 Evaluator of tenure track position, Hong Kong University of Science and Technology
- 2022, External examiner of a doctoral thesis, City University of Hong Kong, Hong Kong
- 2018-2021, Editorial Board Member for *Scientific Reports*
- 2016-2020, Board member of International Association for Urban Climate
- 2015-2020, Steering committee member of the Master Program in Atmospheric Sciences, UHEL
- 2019, Workshop on *strategies to monitor greenhouse gases in urban environments*, Helsinki/Hyytiälä, Finland, main organizer, 29 participants
- 2017, Workshop *In-situ aerosol particle flux measurements – post-processing and analysis*, Hyytiälä Forestry Field station, Finland, main organizer, 22 participants
- 2017, Seminar *Drones in research and research infrastructures*, Helsinki, Finland, main organizer, 70 participants

- 2016, Pre-examiner of a doctoral thesis, Dept. of Forest Sciences, UHEL, Finland
- 2016, External examiner of a doctoral thesis, Dept. of Geography, Maynooth Univ., Ireland

Scientific and societal impact

Promoting open science and research: Open eddy covariance datasets to ICOS Carbon Portal; Publishing datasets used in scientific papers in Zenodo.

Utilizing research output: I lead the Strategic Research Council project CO-CARBON which enhances the utilization of research knowledge among society. The project has produced a policy brief for cities on *Carbon-smart Urban Green Infrastructure as a Climate Solution* by Hautamäki R., Järvi L., Ariluoma M., Kinnunen A., Kulmala L., Lampinen J., Merikoski T. and Tahvonen O. I have also led several studies in collaboration with city representatives, exploring carbon-smart solutions and the impact of trees and building layouts on air pollution in real urban environments.

Key positions of trust, expert positions: Member of the CLEEN strategic research agenda planning group Sustainable cities, Finland, 2013.

Selected research communication: Panel discussion member in *Negative Emissions - How to remove carbon dioxide in urban areas*, 2025, COP30, Belem, Brazil; Panel discussion member *Surrounding nature: parks and green areas in Helsinki*, 2025, urban nature event organised by the City of Helsinki, Helsinki; Presentation *Do trees save city-air?* Researchers' night, 2024, Helsinki; Panel discussion member *More nature to cities*, Climate Change and Biodiversity Now event series, 2023, Helsinki, Finland; Presentation *Carbon sinks in urban vegetation* at event organized by City of Joensuu, 2023, online; Panel member in *Systematic observation of greenhouse gases (GHG) to support climate action in cities and regions*, 2022, COP27, Sharm El-Sheikh, Egypt; Visiting teacher, Kumpula school garden Science camp, 2021-2022, Helsinki, Finland; Pinnalla program panel discussion *IPCC Climate report message to Finland*, 2022, Helsinki, Finland; Keynote/expert commentator, Networks for co-creating and constructing carbon-smart and resilient cities, 2021, COP26, Glasgow, UK; Climate webinar for high-school students, 2021, online; Closing words, Climate College organised by the City of Helsinki, 2020, Helsinki, Finland; Presentation *How Helsinki breaths? (in Finnish)*, Climate hour for students, 2020, Helsinki, Finland; Presentation *Practical example of breathing Helsinki*, Open access to information – lunch meeting for Back to the Future of School EU delegation, 2018, Helsinki, Finland; Public workshop on *Climate changes everywhere and in cities (in Finnish)*, Researchers' Night, 2017, Helsinki, Finland

Expert in media: Strange measurement devices confuse in the middle of Helsinki (in Finnish), Media interview, Ilta-Sanomat, 2025; City requested birdhouses to all trees, but nearly all trees were cut-down (in Finnish), Media interview, YLE, 2023; Planting street creates new source over carbon sink (in Finnish), Media interview, Helsingin Sanomat, 2023; *Trees cool European cities, street tree can sequester even more carbon than tree growing in a forest* (in Finnish), Media interview, Helsingin Sanomat, 2021; *Winter has separated Helsinki from central European Climate, but this is about to change* (in Finnish), Media interview, Helsingin Sanomat, 2021; *Different height trees should be planted in street canyons as it might moderate local air quality* (in Finnish), Media interview, Helsingin Sanomat, 2020; Referred at leading article *Trees make city boulevards diverse* (in Finnish), Helsingin Sanomat, 2020; *The cleanest air in boulevard is obtained with changing street trees, best ones would be treeless canyons* (in Finnish), YLE, 2020; *Spy for city-air* (in Finnish), Media interview, Helsingin Sanomat, 2018; *This drone does not spy but measures air quality – the results can solve how the Helsinki City Boulevards will look* (in Finnish), Media interview, Helsingin Sanomat, 2017.