

1. Personal details

Kulmala, Liisa-Maija

Female, 2 children (born in 2010 and 2014)

ORCID ID: <https://orcid.org/0000-0003-1775-8240>

Date of birth: 4 June 1981

Citizenship: Finnish

Current residence: Helsinki, Finland



2. Education and degrees awarded

Docent in Forest Ecology, University of Helsinki (FI) 12 Sep 2018

PhD (Forest Sciences), University of Helsinki (FI) 21 Dec 2011

MSc (Forest Ecology), University of Helsinki (FI) 21 Nov 2005

3. Current position

03/2018– Finnish Meteorological Institute (FMI) (80% until 12/2020)
Senior research scientist: Modelling of ecosystem-atmosphere interactions and soil carbon dynamics

03/2018–12/2020 University of Helsinki (UH), Finland, Dept. Forest Science (20%)
Leading a small group *Carbon cycle using isotopic methods*, supervision of students

4. Previous academic work experience

09/2014–02/2018 University of Helsinki, Finland, Dept. Forest Sciences:
Post-doctoral project funded by the Academy of Finland: '*Climatic response of the primary production of ground vegetation and its destiny in boreal Scots pine forests*'

03/2017–04/2017 Visit at the University of Lund (Sweden), Department of Physical Geography and Ecosystem Science

03/2015–04/2015 Visit at the University of Antwerp (Belgium), Department of Biology

10/2012–02/2014 Finnish Forest Research Institute (METLA)
- Researcher in a project '*Multi-scale modelling of tree growth, forest ecosystems, and their environmental control*' in cooperation with Aalto University

02/2013 Visit at the INRA Nancy (France), LERFoB

04/2011–12/2012 University of Helsinki, Dept. Forest Sciences (part-time)
- Planning, providing informative, textual, visual and experimental content, and implementation of Carbondot for general audience (funded by Tieteen tiedotus RY and Ministry of Education and Culture, Finland)
- Researcher in projects '*Decadal climate prediction in adaptation to climate change*', '*Distributed Infrastructure for EXPERimentation in Ecosystem Research*' and EU-funded '*Greenhouse gas management in European land use systems*'

04/2011–12/2011 University of Helsinki, Dept. Physics (part-time)
- Preparation of the pan-European Research Infrastructure '*Integrated carbon observation system*' (ICOS RI)

10/2010–11/2010 University of Helsinki, Dept. Physics
- Preparation of ICOS RI

04/2010–05/2010 University of Helsinki, Dept. Physics
- Preparation of '*Turpeen energiakäytön hyödyt ja haitat*', comment by Finnish Academy of Science and Letters, Preparation of '*Integrated carbon observation system*'

01/2006–03/2010 University of Helsinki, Dept. Forest Ecology
- Doctoral studies

5. Career breaks

02/2014–12/2014	<i>Family leave</i>
12/2010–03/2011	<i>Family leave</i>
05/2010–09/2010	<i>Family leave</i>

6. Personal research funding and grants

- University of Helsinki Funds (2018–2020): 150 000 €
- Post-doctoral researcher (2014–2017) from Academy of Finland: 266 824 €
- Funded position in Graduate School in Physics, Chemistry, Biology and Meteorology of Atmospheric Composition and Climate Change (2006–2009).

7. Leadership and supervision experience

- PhD Student: K. Ryhti, UH, Dept. Forest Sciences: (responsible supervisor)
- PhD Student: M.D.R Dominguez Carrasco, UH, Dept. Forest Sciences: (secondary supervisor)
- PhD Student: P. Schiestl-Aalto, UH, Dept. Forest Sciences: (2017, secondary supervisor)
- Master's Student: S. Salko, UH, Dept. Forest Sciences (responsible supervisor) M.N. Hussain, UH, Dept. Food and Environmental Sciences (secondary supervisor), P. Kettunen, UH, Dept. Biosciences (2016, responsible supervisor),
- Bachelor's degree student: L. Lahtinen (2017, responsible supervisor), S. Salko (2017, responsible supervisor)

8. Latest teaching duties (2017-2018)

- Planning and responsible lecturer:
 - Atmospheric and Earth system Today (5 p), Department of Physics (UH), 2017, together with L. Järvi
- Visiting lecturer at several courses at the department of Forest Sciences (UH) such as :
 - *Biogeochemical cycles and forest management interactions* (2 h), led by Doc. H.-S. Helmisaari
 - *Adaptation of forestry to climate change* (2h), led by Doc. F. Berninger
 - *Metsäpuiden ekofysiologian jatkokurssi* (4h), led by Prof. J. Bäck
 - *Puiden aineenvaihdunta, kasvu ja rakenne* (4h), led by Doc T. Hölttä
 - *Metsäekologia* (8 h), led by Prof. K. Heliövaara
 - *Metsäekologian kenttäkurssi* (20 h), led by Doc. K. Minkkinen

9. Experience of organising scientific meetings

- One-day scientific workshops in the CarbonAction project (2/2018 and 4/2018), co-organizer
- CRAICC-PEEX Workshop on *Carbon exchange in the soil/cryosphere – vegetation – atmosphere continuum*, Helsinki (FI), 9-10 Feb 2015, co-organizer
- ICOS 4th Stakeholders Conference and Annual Meeting, Helsinki (FI), 31 May – 02 June 2010, co-organizer
- Organizing Wine & Science seminar series at UH Forest Sciences in 2011–2012 and 2014–2018

10. Awards and honours

- 2013 International Association of Wood Anatomists (IAWA): *A reward for an oral presentation in International Symposium on Wood Structure in Plant Biology and Ecology* (Naples, Italy)
- 2006 The Finnish Society of Forest Science: *A reward for a successful Master Thesis* and for participation in leisure activities (500 €)
- 2003 Nordea Bank: *A reward for a successful student and for participation in leisure activities* (500 €)

11. Other key scientific or academic merits

- Member of PhD committee, Faculty of Forest Sciences, SLU, Umeå (SWE). 1 Dec 2017. Defender: Hyungwoo Lim
- Co-editing two textbooks:
 - Hari P, Heliövaara K, Kulmala L eds. (2013) *Physical and Physiological Ecology of Boreal Forests*. Springer Verlag. Springer. Dordrecht, NL, 534 p.
 - Hari P, Kulmala L eds. (2008) *Boreal Forest and Climate Change*. Springer Verlag. Springer. Dordrecht, NL, 582 p.
- Regular Journal Review: Global change biology, Agricultural Forest Meteorology, Biogeosciences, Acta Oecologia, Forest Ecology and Management, Polish Journal of Environmental Studies, Boreal Environment Research, Silva Fennica
- Key works intended to popular audience in Finnish, linked to research:
 - Announcement by FMI: 'Pitkittynyt kuivuus vaikeutti nurmen hiilensidontaa kesällä', <https://ilmatieteenlaitos.fi/ajankohtaista/656560378> (2018)
 - chairing session 'Millaista on ilmastoystävällinen metsien käyttö' in Science Night [Tieteen yö] Helsinki (2018)
 - chairing session 'Sattumia metsässä' in Science Forum [Tieteen päivät] Helsinki (2015)
 - Hiilipuu (hiilipuu.fi): a webpage visualizing and introducing to carbon uptake and release, as well as an interactive piece (CarbonTree) to visualize the carbon uptake and release, presented for example in Tiedekulma, University of Helsinki, and in Cimuset conference (2012)
 - Organization of an introduction of the climate change research at University of Helsinki in Tiedekulma (4–8 June 2012), main organizer
 - Radio interview in Radiaattori (by Sisko Loikkanen), YLE Radio 1, (11/2011)
 - Co-editing 'Turpeen energiakäytön hyödyt ja haitat' (Finnish Academy of Science and Letters, 2010)
 - Tieteessä tapahtuu (1/2010): 'Tutkija tarkkailijana ilmastokokouksessa Kööpenhaminassa'. p: 30–32

12. Memberships and positions of trust in scientific societies

- Member of Nature Panel (the Finnish national IPBES panel): 2019-2022
- Member of Executive board: The Finnish Society of Forest Science: 2011-2017

13. Scientific impact of research

- Altogether **31** accepted, peer-reviewed, scientific publications, one in *Nature Communications*
- 9 first authored publications
- H-index: **13** (Web of Science)
- Total number of citations **693**