

1. Education

- **PhD in physics** (excellent 5/5), thesis grading *Laudatur*, Univ. Helsinki, Finland, April 18th 2008
- **MSc in physics** (excellent 5/5), thesis grading *Laudatur*, Univ. Helsinki, Finland, October 21st 2005

2. Research positions held, including post-doctoral positions

- **Professor**, ACES, Stockholm University, Sweden, 2017-
- **Visiting professor**, Faculty of Science, Tampere University of Technology, Finland, August-September 2018
- **Associate Professor**, ACES, Stockholm University, Sweden, 2011-2016
- **Adjunct Professor**, Department of Chemical Engineering, Carnegie Mellon University, USA 2011-
- **Docent**, Department of Physics, University of Helsinki, Finland, 2011-
- **Dreyfus post-doctoral fellow**, Center for Atmospheric Particle Studies, Carnegie Mellon University, USA, 2009-2011
- **Post-doctoral researcher**, Department of Physics, University of Helsinki, Finland 2009-2010
- **Doctoral student**, Department of Physics, University of Helsinki, 2003-2009

3. Parental leave

- **Parental leave**, 20% of full time, October 2018 to August 2019
- **Parental leave**, 100 % of full time (exclusive of individual days), November 2017 to October 2018

4. Awards and honors

- **Member of the Royal Swedish Academy of Sciences 2020-**
- **Sixten Heymans pris 2019**
- **Thomson Reuters / Clarivate Analytics highly cited researcher 2016, 2017, 2018 and 2019**
- **Wallenberg Academy Fellow 2015**
- **IUGG (International Union for Geodesy and Geophysics) Early Career Scientist Award** in meteorology, 2014
- **Smoluchowski Award** for significant contributions to aerosol science, Gesellschaft für Aerosolforschung (GAeF), 2014
- **Membership of Academy Club for Young Scientists**, Finnish Academy of Science and Letters, 2010-2011
- **Sheldon K. Friedlander Award** for excellent dissertation, American Association for Aerosol Research (AAAR), 2010
- **The Award of the Finnish Association for Aerosol Research (FAAR)** for excellence in aerosol research, 2010
- **Doctor Prima** in the 95th conferment of the Faculty of Philosophy, University of Helsinki, 2010
- **Invited participant of ACCESS IX** (Atmospheric Chemistry Colloquium for Emerging Senior Scientists), MT, USA, 2007
- **PhD thesis award** of the University of Helsinki, all faculties, 2008
- **MSc thesis award** of the Department of Physics, University of Helsinki, 2005
- **Pro Mathematica Medal** for excellence in Finnish national mathematics baccalaureate examination, 2001

5. Publications

In total 143 peer-reviewed articles in scientific journals (see full publication list for details):

- 10 *ISI* highly cited papers, i.e. in the top 1% in the field of geophysics;
- 3 in *Nature*, 2 in *Science*, 2 in *Nature Geosci.*, 5 in *Nature Communications*, 1 in *Nature Protocols*, 1 in *Chem. Soc. Rev.*, 1 in *Proc. Nat. Acad. Sci.*, 2 in *Science Adv.*)
- 9301/8532 citations, *h*-index 47 (*ISI Web of Science*, February 2021);

5 book chapters in *Boreal Forest and Climate Change*, Springer 2008; *Nature's Nanostructures*, Pan Stanford publishing 2011; *From the Earth's Core to Outer Space*. Springer 2012; *Physical Chemistry of Gas-Liquid Interfaces*, Elsevier 2018.

Hundreds of peer-reviewed conference papers.

6. Invited presentations

In total 46 invited presentations in international scientific conferences and seminar series (see full publication list for details):

- **3 plenary lectures:**
 - The 18th ICNAA conference, Prague, Czech Republic, 08/2009;
 - 10th Anniversary of the European Research Council, Brussels, Belgium, 03/2017;
 - International Aerosol Conference, St. Louis, MS, USA, 09/2018
- **6 keynote presentations:**
 - The 5th NorWip workshop, Helsinki, Finland, 08/2009;
 - The Bolin symposium, Kungliga Vetenskapsakademien, Stockholm, Sweden 09/2013;
 - The Goldschmidt Conference, Prague, Czech Republic, 08/2015;
 - Gordon Research Conference on atmospheric chemistry, MN, USA, 07/2017;
 - Gordon Research Conference on biogenic hydrocarbons in the atmosphere, Les Diablerets, Switzerland, 06/2018
 - Norndip conference, Stockholm (online), Sweden, 01/2021;
- **17 invited talks** in e.g. *American Geophysical Union* annual meetings, *Telluride Science Conferences*, annual meetings of the *American Association for Aerosol Research (AAAR)*, *The International Union of Geodesy and Geophysics (IUGG)* annual meeting, *American Chemical Society (ACS)* fall meeting, "Towards a molecular understanding of atmospheric aerosol" conference, *European Science Open Forum (ESOF)*, conferences (see full publication list for details).
- **26 invited seminars** in various research institutes and universities globally (see full publication list for details).

7. Academic leadership and supervision

- **Unit head**, Atmospheric Science Unit, ACES, Stockholm University, 2016-
- **Deputy unit head**, Atmospheric Science Unit, ACES, Stockholm University, 2014-2016
- **Research Area leader**, Bolin Centre for Climate Research, 2013-2016
- **Coordinator**, H2020 integrated project FORCeS (8 MEur) funded by the European Commission, 2019-2023
- **Principal investigator**, project INTEGRATE (2.75 Eur) funded by the European Research Council consolidator grant, 2020-2025
- **Principal investigator**, project ATMOGAIN (1.5 MEur) funded by the European Research Council starting grant, 2011-2016
- **Principal investigator**, Wallenberg Academy Fellowship (7.5 MSEK), 2016-2020
- **Principal investigator** for several smaller projects (with overall funding over 1 MEur), funded by Vetenskapsrådet, Formas, University of Helsinki funds, Camille and Henry Dreyfus foundation, Maj and Tor Nessling foundation, Vilho, Yrjö and Kalle Vaisala foundation and Magnus Ehrnrooth foundation, during 2006-
- **Work package leader / co-investigator**, European integrated project EUCAARI, 2007-2011; Nordic Centers of Excellence CRAICC, 2012-2015 and eSTICC 2014-2019; ACAS project funded by Knut and Alice Wallenberg Foundation, 2017-2021; Marie Curie ITN iMIRACLI 2020-2024
- **Board / directorate memberships**: American Association for Aerosol Research (AAAR) Board of Directors, 2013-2016; Nordic Society for Aerosol Research (NOSA) board, 2011-2017; Department of Applied Environmental Science board, Stockholm University, 2012-; SITES measurement network board, 2014-2017; University of Helsinki board, 2018-2021.
- **Principal or co-advisor of 18 PhD students (7 ongoing)**: Taina Yli-Juuti (2013, Univ. Helsinki, principal advisor), Erica Trump (2013, Carnegie Mellon University, co-advisor), Silja Häkkinen (2015, Univ. Helsinki, principal advisor), Juan Acosta Navarro (2017, Stockholm Univ., principal advisor), Elham Baranzadeh (2017, Univ. Eastern Finland, co-advisor), Narges Rastak (2018, Stockholm Univ., principal advisor), Maryam Dalirian (2018, Stockholm Univ., principal advisor), Samuel Lowe (2020, Stockholm Univ., principal advisor), Emelie Graham (Stockholm Univ., principal advisor), Ines Bulatovic (Stockholm Univ., co-advisor), Roman Bardakov (Stockholm University, co-advisor), Yvette Gremlich (Stockholm University, co-advisor), Théodore Khadir (Stockholm University, principal advisor), Maura Dewey (Stockholm University, co-advisor), Dominic Heslin-Rees (Stockholm University, co-advisor), Almuth Neuberger (Stockholm University, co-advisor), Fredrik Mattson (Stockholm University, co-advisor), Ivica Crljenica (Stockholm Univ., on leave, principal advisor); **10 post-doctoral researchers**: Dr. Jan Julin (2011-2016, Stockholm Univ.), Dr. Lars Ahlm (2012-2016, Stockholm Univ.), Dr. Benjamin Murphy (2012-2015, Stockholm Univ.), Dr. Paul Zieger (2013-2016, Stockholm Univ.), Dr. Vidya Varma (2013-2016, Stockholm Univ.), Dr. Tinja Olenius (2015-2019), Dr. Daniel Schlessinger (2016-), Dr. Tanja Dallafior (2017-2018), Dr. Jenni Kontkanen (2017-2018); Dr. Liine Heikkinen (2021-) **10 MSc students**: S. Arnoldt (2014, Stockholm Univ.), N. Rastak (2012, Stockholm Univ.), J. Acosta Navarro (2013, Univ. Helsinki), S. Häkkinen (2012, Univ. Helsinki), L. Riuttanen (2009, Univ. Helsinki), L. Li (2009, Univ. Helsinki), T. Yli-Juuti (2009, Univ. Helsinki), S. Mazon (2008, Univ. Helsinki), H. Manninen (2007, Univ. Helsinki), T. Nieminen (2007, Univ. Helsinki); **4 BSc students**: H. Stalheim (2017, Stockholm Univ.), S. Häkkinen (2010, Univ. Helsinki), M. Hulkkonen (2008, Univ. Helsinki), T. Yli-Juuti (2007, Univ. Helsinki)

7. Positions of trust and consulting

- **Editor/Associate editor**, *Atmospheric Chemistry and Physics* (2011-2020); *AMBIO* (2011-2016); *Aerosol Sci. Technol.* (2017-2019)
- **Grant proposal reviewer**, European Commission, European Research Council, Natural Environment Research Council (NERC), UK; National Science Foundation (NSF), USA; National Oceanic and Atmospheric Administration (NOAA), USA; Academy of Sciences of the Czech Republic; Estonian Research Council; Canada Council for the Arts, Vetenskapsrådet 2006-
- **Manuscript reviewer**, *AMBIO*, *Aerosol Science and Technology*, *Atmospheric Environment*, *Atmospheric Research*, *Journal of Physical Chemistry*, *Environmental Science and Technology*, *Chemical Physics Letters*, *International Journal of Thermal Sciences*, *Journal of Geophysical Research*, *Atmospheric Chemistry and Physics*, *Journal of Aerosol Science*, *Nature Geoscience*, *Communications Chemistry* 2006-
- **Reviewer for faculty appointments**, University of Helsinki, Finland, 2017; University of Minnesota, USA, 2017; University of Manchester, UK, 2018, 2021; Colorado State University, USA, 2020.
- **Appointment as opponent**, PhD defense of Anton Laakso (Univ. Eastern Finland), 2016; PhD defense of Laura Thölix (Univ. Helsinki) 2018; PhD defence of Inger Helene Karset (University of Oslo) 2020; Lic. defense of Melissa Gomis (Stockholm Univ.), 2016
- **Thesis reviewer/committee member**, PhD J. Soares (2016, Univ. Helsinki), PhD A.-M. Sundström (2014, Univ. Helsinki), PhD A. Horst (2013, Stockholm Univ.), PhD A. Palm Cousins (2013, Stockholm Univ.), PhD E. Kirillova (2013, Stockholm Univ.), PhD T. Hede (2013, Stockholm Univ.), PhD E. Emanuelsson (2013, University of Gothenburg), PhD X. Li (KTH, 2011), PhD S. Mikkonen (2011, Univ. Eastern Finland), PhD T. Raatikainen (2010, Univ. Eastern Finland), Lic. Xiang-Yu Li (2016, Stockholm Univ.), BSc J. Koskinen (2009, Univ. Helsinki).

8. Other academic and professional activities and memberships

- **Conference organisation/steering committee memberships**:

Session convener, *EGU general assembly* 2015, 2019, 2020, 2021
Program committee chair / vice chair, *IAMA meeting* 2015 and 2017, USA
Conference Chair, *NOSA annual meeting* 2014, Sweden
Program committee member, *IAMA meeting* 2013, USA
Workshop Chair, *Early Career Scientist Workshop, iLEAPS conference* 2011, Germany
Member of the program committee, *Finnish/Nordic Physics days* 2011, Finland
Member of the steering group, *Millennium Youth Camp* 2010, Finland
Chair, *Workshop on saturation vapour pressures of atmospheric organic compounds* 2010, Denmark

9. Teaching at the university level

- **Lecturer on** *Environmental Physics* (Stockholm University, 2016); *Air quality outdoors and indoors* (Stockholm University, 2015, 2016, 2017); *Cloud physics* (Stockholm University, 2013, 2014, 2015, 2016); *Organic aerosols* (summer school organized by University of Gothenburg, 2013); *Aerosols, clouds and climate* (Stockholm University, 2012; 2014); *The Earth's climate and climate change* (Stockholm Summer School, Bert Bolin Centre for Climate Research, Stockholm University, 2012); *Atmospheric particle formation* (2-day intensive course given at Stockholm University, University of Galway, University of Leeds, University of Manchester, University of Cologne, Paul Scherrer Institute, University of Gothenburg, Lund University, University of Copenhagen, University of Prague, Leibniz Institute for Tropospheric Research, during 2008-2011) ; *Formation and growth of atmospheric aerosol* (University of Helsinki, 2006, 2008, 2010, 2012, 2014); *Environmental Physics II* (University of Helsinki, 2008 and 2011); *Physics and chemistry of air pollution* (University of Helsinki, 2006, 2007, 2008); *Introduction to physical sciences* (University of Helsinki, 2006, 2008)
- **Teaching assistant on** *Physics and chemistry of air pollution* (University of Helsinki, 2005); *Thermophysics* (University of Helsinki, 2004, 2005)
- **Pedagogical training:** *Course design* (3 ECTS, Stockholm University, 2013); *Teaching in the disciplines* (4.5 ECTS, Stockholm University, 2014)

10. Management training

- Half-day module "Managing your project, managing yourself" by Mr. William Uber, iLEAPS early career scientist workshop, 2011
- "Personal leadership" coaching module by Mr. Alexander Marlevi at Next Peak Ltd.
- In total three full-day workshops for ACESI and ACES leadership with different management- and leadership-related themes by Mr. Anders Lundin from Värdegrundsfabriken, 2015-
- "Handledning och ledarskap" (two-day intensive course) by the Faculty of Science, 2014
- "Research supervision" (3 ECTS) training by Centre for the advancement of university teaching, Stockholm University, 2016
- Participation in the mentorship programs of Stockholm University and Knut and Alice Wallenberg foundation, 2016-

11. Commissions within research and education policy

- **Nomination** as a Stockholm University representative for ERC Swedish reference group, 2016
- **Vice chair**, proposal evaluation panel NT-8 ("Processes in soil, air and water"), Vetenskapsrådet, 2016
- **Member**, proposal evaluation panel NT-8 ("Processes in soil, air and water"), Vetenskapsrådet, 2015
- **Member of the external specialist group** on redesigning the Finnish Centre of Excellence concept, Academy of Finland, 2015-2016
- **Invited commentary** on the national publication classification system JUFO, Julkaisufoorumi, Finland, 2011
- **Invited expert**, European Research Area Board (ERAB) meeting on the scientific strategy of the European Research Area, European Commission, 2009
- **Invited panelist**, European Science Foundation (ESF) in panel discussion "Educating new generation of scientists", ESF annual meeting, Stockholm, Sweden, 2008