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Curriculum vitae

Full names	Ari Tapani Karppinen
Place and date of birth	Rautavaara, Finland, 22.12.1961
Current positions	1. Head of Dispersion Modelling group, Finnish Meteorological Institute, Air Quality 2. Docent of Physics, University of Helsinki
Education	M. Sc., Applied Physics, Helsinki University of Technology, 1988 Lic. Tech, Applied Physics, Helsinki University of Technology, 1998 D. Sc.(Tech), Applied Physics, Helsinki University of Technology, 2001 Docent, Physics, University of Helsinki, 2004

Previous professional appointments

Outokumpu Oy,

- research assistant 1980-1982

Helsinki University of Technology

- research assistant 1982-84

Finnish Meteorological Institute

- research assistant 1984-86
- research scientist 1987-88

Ministry of the Environment

- research scientist, 1988

Finnish Meteorological Institute

- research scientist 1989-94
- senior research scientist 1994-2004
- head of research group 2004-

Key qualifications

Doc. Ari Karppinen has worked as a research scientist at the Finnish Meteorological Institute since 1984. His expertise is on mathematical modelling, atmospheric physics and chemistry; particularly evaluation of urban air quality, the dispersion of pollution from traffic.

His MSc thesis (1987) dealt with the description and application of a system for calculating radiation doses due to long range transport of radioactive releases and his Licentiate's thesis (1998) studied the effective choice of NO_x – emission control measures. His doctor's thesis (2001) dealt with the meteorological pre-processing and atmospheric dispersion modelling of urban air quality and applications in the Helsinki metropolitan area

Doc. Karppinen is the author of approximately 140 scientific publications; 25 of these in refereed international journals. He has given over 20 lectures and presentations at scientific conferences

Doc. Karppinen's group is currently working on projects:

1. "Health Effects caused by Urban Air Pollution for the Transport System Plan Scenarios in Helsinki Area – HEAT", Academy of Finland, 2002-4.
2. "An integrated model for evaluating the emissions, atmospheric dispersion and risks caused by ambient air fine particulate matter – KOPRA". Technology Advancement Fund in Finland, 2002-5.
3. "Improved modelling tools for air quality forecasting, applying deterministic and neural network models – FORECAST", Academy of Finland, 2002-4.
4. "Integrated Systems for Forecasting Urban Meteorology, Air Pollution and Population Exposure – FUMAPEX", EU, City of Tomorrow, 2002-5.
5. "Optimised Expert System for Conducting Environmental Assessment of Urban Road Traffic – OSCAR", EU, City of Tomorrow, 2002-5.
6. "Source apportionment of urban airborne particles and polycyclic aromatic hydrocarbons in Europe-SAPPHIRE", EU, City of Tomorrow, 2002-5.
7. "Using ceilometers for boundary layer height estimation" Vaisala Oyj. 2003-4.
8. "Environmentally viable electronic city - ENV-e-CITY", EU, Information Society Technology, Content, Multimedia Tools and Markets: e-Content, 2002-3.

Professional membership in scientific societies

1. COST 710, "Preprocessing of Meteorological Data for Dispersion Modelling". National representative of Finland, 1995-98.
2. COST 715, "Meteorology Applied to Urban Air Pollution Problems". National representative of Finland, since 1998.

Supervised academic thesis

Doc. A. Karppinen is currently guiding the doctoral studies of Harri Niska, UKU and Esko Valkonen, HUT.

Language proficiency

Finnish: native language, English: excellent, Swedish: basic, German: basic

Contact information

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