Ari Karppinen

List of Publications by Year
in descending order

83 papers	3,092 citations	159525 30 h-index	168321 53 g-index
95 all docs	95 docs citations	95 times ranked	3570 citing authors

#	Article	IF	Citations
1	Mixing height determination by ceilometer. Atmospheric Chemistry and Physics, 2006, 6, 1485-1493.	1.9	240
2	Retrieval of mixing height and dust concentration with lidar ceilometer. Boundary-Layer Meteorology, 2007, 124, 117-128.	1.2	204
3	Intercomparison of air quality data using principal component analysis, and forecasting of PM10 and PM2.5 concentrations using artificial neural networks, in Thessaloniki and Helsinki. Science of the Total Environment, 2011, 409, 1266-1276.	3.9	204
4	Chemical composition of aerosols during a major biomass burning episode over northern Europe in spring 2006: Experimental and modelling assessments. Atmospheric Environment, 2007, 41, 3577-3589.	1.9	195
5	Evolving the neural network model for forecasting air pollution time series. Engineering Applications of Artificial Intelligence, 2004, 17, 159-167.	4.3	190
6	Evaluation of a multiple regression model for the forecasting of the concentrations of NOx and PM10 in Athens and Helsinki. Science of the Total Environment, 2011, 409, 1559-1571.	3.9	177
7	Meteorological dependence of size-fractionated number concentrations of urban aerosol particles. Atmospheric Environment, 2006, 40, 1427-1440.	1.9	160
8	Integrated systems for forecasting urban meteorology, air pollution and population exposure. Atmospheric Chemistry and Physics, 2007, 7, 855-874.	1.9	126
9	A model for evaluating the population exposure to ambient air pollution in an urban area. Atmospheric Environment, 2002, 36, 2109-2119.	1.9	109
10	A measurement campaign in a street canyon in Helsinki and comparison of results with predictions of the OSPM model. Atmospheric Environment, 2001, 35, 231-243.	1.9	78
11	Evaluation of the CAR-FMI model against measurements near a major road. Atmospheric Environment, 2001, 35, 949-960.	1.9	64
12	Measurements and modelling of PM2.5 concentrations near a major road in Kuopio, Finland. Atmospheric Environment, 2002, 36, 4057-4068.	1.9	59
13	The surface energy balance and the mixing height in urban areasâ€"activities and recommendations of COST-Action 715. Boundary-Layer Meteorology, 2007, 124, 3-24.	1.2	57
14	Evaluation and modelling of the size fractionated aerosol particle number concentration measurements nearby a major road in Helsinki â€" Part I: Modelling results within the LIPIKA project. Atmospheric Chemistry and Physics, 2007, 7, 4065-4080.	1.9	54
15	Refinement of a model for evaluating the population exposure in an urban area. Geoscientific Model Development, 2014, 7, 1855-1872.	1.3	54
16	A semi-empirical model for urban PM10 concentrations, and its evaluation against data from an urban measurement network. Atmospheric Environment, 2001, 35, 4433-4442.	1.9	50
17	Modelling the dispersion of particle numbers in five European cities. Geoscientific Model Development, 2016, 9, 451-478.	1.3	50
18	Evaluation of an integrated modelling system containing a multi-layer perceptron model and the numerical weather prediction model HIRLAM for the forecasting of urban airborne pollutant concentrations. Atmospheric Environment, 2005, 39, 6524-6536.	1.9	49

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19	The Helsinki Testbed: A Mesoscale Measurement, Research, and Service Platform. Bulletin of the American Meteorological Society, 2011, 92, 325-342.	1.7	48
20	Influence of spatial resolution on population PM2.5 exposure and health impacts. Air Quality, Atmosphere and Health, 2019, 12, 705-718.	1.5	44
21	Temporal variations in black carbon concentrations with different time scales in Helsinki during 1996â€“2005. Atmospheric Chemistry and Physics, 2008, 8, 1017-1027.	1.9	41
22	A Three-Step Method for Estimating the Mixing Height Using Ceilometer Data from the Helsinki Testbed. Journal of Applied Meteorology and Climatology, 2012, 51, 2172-2187.	0.6	40
23	The influence of residential wood combustion on the concentrations of PM_{2.5} in four Nordic cities. Atmospheric Chemistry and Physics, 2020, 20, 4333-4365.	1.9	40
24	Statistical and diagnostic evaluation of a new-generation urban dispersion modelling system against an extensive dataset in the Helsinki area. Atmospheric Environment, 2001, 35, 4617-4628.	1.9	39
25	An integrated multi-model approach for air quality assessment: Development and evaluation of the OSCAR Air Quality Assessment System. Environmental Modelling and Software, 2008, 23, 268-281.	1.9	39
26	Fusion of meteorological and air quality data extracted from the web for personalized environmental information services. Environmental Modelling and Software, 2015, 64, 143-155.	1.9	39
27	The refinement of a meteorological pre-processor for the urban environment. International Journal of Environment and Pollution, 2000, 14, 565.	0.2	38
28	Evaluation of the OSPM model combined with an urban background model against the data measured in 1997 in Runeberg Street, Helsinki. Atmospheric Environment, 2003, 37, 1101-1112.	1.9	38
29	Health Impacts of Ambient Air Pollution in Finland. International Journal of Environmental Research and Public Health, 2018, 15, 736.	1.2	38
30	Modelling of the urban concentrations of PM_{2.5} on a high resolution for a period of 35Âyears, for the assessment of lifetime exposure and health effects. Atmospheric Chemistry and Physics, 2018, 18, 8041-8064.	1.9	33
31	Evaluation of the impact of wood combustion on benzo[<i>a</i>]pyrene (BaP) concentrations; ambient measurements and dispersion modeling in Helsinki, Finland. Atmospheric Chemistry and Physics, 2017, 17, 3475-3487.	1.9	32
32	Evaluation of the European population intake fractions for European and Finnish anthropogenic primary fine particulate matter emissions. Atmospheric Environment, 2009, 43, 3052-3059.	1.9	31
33	Integrated modeling assessments of the population exposure in Finland to primary PM2.5 from traffic and domestic wood combustion on the resolutions of 1 and 10Âkm. Air Quality, Atmosphere and Health, 2011, 4, 179-188.	1.5	31
34	An Overview of the Urban Boundary Layer Atmosphere Network in Helsinki. Bulletin of the American Meteorological Society, 2013, 94, 1675-1690.	1.7	31
35	Evaluation and modeling of the size fractionated aerosol particle number concentration measurements nearby a major road in Helsinki â€“ Part II: Aerosol measurements within the SAPPHIRE project. Atmospheric Chemistry and Physics, 2007, 7, 4081-4094.	1.9	28
36	Uncertainty of eddy covariance flux measurements over an urban area based on two towers. Atmospheric Measurement Techniques, 2018, 11, 5421-5438.	1.2	25

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37	Intake fraction distributions for benzene from vehicles in the Helsinki metropolitan area. Atmospheric Environment, 2009, 43, 301-310.	1.9	24
38	The impact of measures to reduce ambient air PM₁₀ concentrations originating from road dust, evaluated for a street canyon in Helsinki. Atmospheric Chemistry and Physics, 2019, 19, 11199-11212.	1.9	18
39	Analysis and evaluation of selected PM10 pollution episodes in the Helsinki Metropolitan Area in 2002. Atmospheric Environment, 2008, 42, 3992-4005.	1.9	17
40	Evaluation of inversion strengths and mixing heights during extremely stable atmospheric stratification. International Journal of Environment and Pollution, 2001, 16, 603.	0.2	15
41	Ontology-centered environmental information delivery for personalized decision support. Expert Systems With Applications, 2015, 42, 5032-5046.	4.4	15
42	Measurements and Modelling of Air Pollution in a Street Canyon in Helsinki. Environmental Monitoring and Assessment, 2000, 65, 371-379.	1.3	14
43	Comparison of the predictions of two road dust emission models with the measurements of a mobile van. Atmospheric Chemistry and Physics, 2014, 14, 9155-9169.	1.9	14
44	Residential Wood Combustion in Finland: PM2.5 Emissions and Health Impacts with and without Abatement Measures. International Journal of Environmental Research and Public Health, 2019, 16, 2920.	1.2	14
45	Evaluation of two versions of the HIRLAM numerical weather prediction model during an air pollution episode in southern Finland. Atmospheric Environment, 2005, 39, 2775-2786.	1.9	13
46	Evaluation of intake fractions for different subpopulations due to primary fine particulate matter (PM2.5) emitted from domestic wood combustion and traffic in Finland. Air Quality, Atmosphere and Health, 2011, 4, 199-209.	1.5	13
47	Modeling of the Concentrations of Ultrafine Particles in the Plumes of Ships in the Vicinity of Major Harbors. International Journal of Environmental Research and Public Health, 2020, 17, 777.	1.2	13
48	An operational urban air quality model ENFUSER, based on dispersion modelling and data assimilation. Environmental Modelling and Software, 2022, 156, 105460.	1.9	12
49	Evaluation and application of a statistical model for assessment of long-range transported proportion of PM2.5 in the United Kingdom and in Finland. Atmospheric Environment, 2008, 42, 3980-3991.	1.9	11
50	Environmental data extraction from multimedia resources. , 2012, , .		9
51	Recent meteorological and marine studies to support nuclear power plant safety in Finland. Energy, 2018, 165, 1102-1118.	4.5	9
52	Building an Environmental Information System for Personalized Content Delivery. IFIP Advances in Information and Communication Technology, 2011, , 169-176.	0.5	8
53	Opinion: Insights into updating Ambient Air Quality Directive 2008/50/EC. Atmospheric Chemistry and Physics, 2022, 22, 4801-4808.	1.9	8
54	The influence of vehicle emission characteristics and meteorological conditions on urban N0<SUB align=right>2 concentrations. International Journal of Vehicle Design, 1998, 20, 125.	0.1	6

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55	Estimating domestic wood burning emissions of particulate matter in two Nordic cities by combining ambient air observations with receptor and dispersion models. Chemical Industry and Chemical Engineering Quarterly, 2010, 16, 237-241.	0.4	6
56	Evaluation of an urban modelling system against three measurement campaigns in London and Birmingham. Atmospheric Pollution Research, 2017, 8, 38-55.	1.8	6
57	Added Value of Vaisala AQT530 Sensors as a Part of a Sensor Network for Comprehensive Air Quality Monitoring. Frontiers in Environmental Science, 2021, 9, .	1.5	6
58	Multimodal Fusion of Sentinel 1 Images and Social Media Data for Snow Depth Estimation. IEEE Geoscience and Remote Sensing Letters, 2022, 19, 1-5.	1.4	6
59	A model for environmental data extraction from multimedia and its evaluation against various chemical weather forecasting datasets. Ecological Informatics, 2014, 23, 69-82.	2.3	5
60	Evaluation of Air Quality Using Dynamic Land-use Regression and Fusion of Environmental Information. , 2015, , .		5
61	Modelling of the public health costs of fine particulate matter and results for Finland inÂ2015. Atmospheric Chemistry and Physics, 2020, 20, 9371-9391.	1.9	5
62	The emissions, dispersion and chemical transformation of traffic-originated nitrogen oxides in the Helsinki metropolitan area. International Journal of Vehicle Design, 1998, 20, 131.	0.1	4
63	Validation of the dispersion model CAR-FMI against measurements near a major road. International Journal of Environment and Pollution, 2001, 16, 137.	0.2	4
64	Getting the environmental information across: from the Web to the user. Expert Systems, 2015, 32, 405-432.	2.9	4
65	Heterogeneous Urban Exposures and Prevalent Hypertension in the Helsinki Capital Region, Finland. International Journal of Environmental Research and Public Health, 2021, 18, 1196.	1.2	4
66	Extraction of Environmental Data from On-Line Environmental Information Sources. International Federation for Information Processing, 2012, , 361-370.	0.4	4
67	Environmental data extraction from heatmaps using the AirMerge system. Multimedia Tools and Applications, 2016, 75, 1589-1613.	2.6	3
68	Personalized Environmental Service Orchestration for Quality of Life Improvement. International Federation for Information Processing, 2012, , 351-360.	0.4	3
69	Input-adaptive linear mixed-effects model for estimating alveolar lung-deposited surface area (LDSA) using multipollutant datasets. Atmospheric Chemistry and Physics, 2022, 22, 1861-1882.	1.9	3
70	Air Quality Forecasting During Summer 2006: Forest Fires as One of Major Pollution Sources in Europe. NATO Security Through Science Series C: Environmental Security, 2008, , 305-312.	0.1	2
71	A High-Resolution National Emission Inventory and Dispersion Modellingâ€"Is Population Density a Sufficient Proxy Variable?. Springer Proceedings in Complexity, 2020, , 199-204.	0.2	2
72	Sensitivity analysis of the meteorological preprocessor MPP-FMI 3.0 using algorithmic differentiation. Geoscientific Model Development, 2017, 10, 3793-3803.	1.3	1

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73	Modelling the Dispersion of Particle Numbers in Five European Cities. Springer Proceedings in Complexity, 2016, , 415-418.	0.2	1
74	Personalized Environmental Service Configuration and Delivery Orchestration: The PESCaDO Demonstrator. Lecture Notes in Computer Science, 2015, , 435-440.	1.0	1
75	Fusion of Air Quality Information: Evaluation of the Enfuser-Methdoology in Finland and a Case Study in China. Springer Proceedings in Complexity, 2018, , 213-218.	0.2	1
76	Chapter 2.11 Dispersion modelling of the concentrations of the fine particulate matter in Europe. Developments in Environmental Science, 2007, 6, 189-199.	0.5	0
77	Inter-comparison of predicted population exposure distributions during four selected episodes in Helsinki and evaluation against measured data. International Journal of Environment and Pollution, 2010, 40, 248.	0.2	0
78	Guest Editorial: Environmental Multimedia Retrieval. Multimedia Tools and Applications, 2016, 75, 1557-1562.	2.6	0
79	Urban Population Exposure Assessment: Integration of the Air-Quality Measurements and Expand Model. Epidemiology, 2006, 17, S59.	1.2	0
80	Intake Fraction for Benzene Traffic Emissions in Helsinki. Alliance for Global Sustainability Bookseries, 2009, , 71-77.	0.2	0
81	The Sensitivity of the Predictions of a Roadside Dispersion Model to Meteorological Variables: Evaluation Using Algorithmic Differentiation. Springer Proceedings in Complexity, 2018, , 89-94.	0.2	0
82	Characteristics and Mitigation of Vehicular Non-exhaust Particle Emissions in Nordic Conditions. Springer Proceedings in Complexity, 2020, , 211-216.	0.2	0
83	Intake Fraction for Benzene Traffic Emissions in Helsinki. NATO Security Through Science Series C: Environmental Security, 2008, , 719-720.	0.1	0