Annalea Lohila

List of Publications by Year
in descending order

106	9,234	76326 40	43889 91
papers	citations	h-index	g-index

174	174	174	9679
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Stable carbon isotope signatures of methane from a Finnish subarctic wetland. Tellus, Series B: Chemical and Physical Meteorology, 2022, 64, 18818.	1.6	31
2	Methane budget estimates in Finland from the CarbonTracker Europe-CH₄ data assimilation system. Tellus, Series B: Chemical and Physical Meteorology, 2022, 71, 1565030.	1.6	11
3	The ABCflux database: Arcticâ€“boreal CO₂ flux observations and ancillary information aggregated to monthly time steps across terrestrial ecosystems. Earth System Science Data, 2022, 14, 179-208.	9.9	22
4	Global maps of soil temperature. Global Change Biology, 2022, 28, 3110-3144.	9.5	113
5	Towards agricultural soil carbon monitoring, reporting, and verification through the Field Observatory Network (FiON). Geoscientific Instrumentation, Methods and Data Systems, 2022, 11, 93-109.	1.6	8
6	Identifying main uncertainties in estimating past and present radiative forcing of peatlands. Global Change Biology, 2022, 28, 4069-4084.	9.5	5
7	Assessing methane emissions for northern peatlands in ORCHIDEE-PEAT revision 7020. Geoscientific Model Development, 2022, 15, 2813-2838.	3.6	8
8	Excess soil moisture and fresh carbon input are prerequisites for methane production in podzolic soil. Biogeosciences, 2022, 19, 2025-2041.	3.3	1
9	Measurement report: Atmospheric new particle formation in a coastal agricultural site explained with binPMF analysis of nitrate CI-APi-TOF spectra. Atmospheric Chemistry and Physics, 2022, 22, 8097-8115.	4.9	8
10	Expert assessment of future vulnerability of the global peatland carbon sink. Nature Climate Change, 2021, 11, 70-77.	18.8	167
11	Upscaling Northern Peatland CO2 Fluxes Using Satellite Remote Sensing Data. Remote Sensing, 2021, 13, 818.	4.0	19
12	Predicting catchment-scale methane fluxes with multi-source remote sensing. Landscape Ecology, 2021, 36, 1177-1195.	4.2	19
13	Carbon dioxide and methane exchange of a patterned subarctic fen during two contrasting growing seasons. Biogeosciences, 2021, 18, 873-896.	3.3	15
14	Quantifying groundwater fluxes from an aapa mire to a riverside esker formation. Hydrology Research, 2021, 52, 585-596.	2.7	2
15	Substantial hysteresis in emergent temperature sensitivity of global wetland CH4 emissions. Nature Communications, 2021, 12, 2266.	12.8	34
16	Identifying dominant environmental predictors of freshwater wetland methane fluxes across diurnal to seasonal time scales. Global Change Biology, 2021, 27, 3582-3604.	9.5	59
17	Methane production and oxidation potentials along a fenâ€bog gradient from southern boreal to subarctic peatlands in Finland. Global Change Biology, 2021, 27, 4449-4464.	9.5	17
18	Carbon dioxide fluxes and carbon balance of an agricultural grassland in southern Finland. Biogeosciences, 2021, 18, 3467-3483.	3.3	14

#	Article	IF	Citations
19	Warming climate forcing impact from a sub-arctic peatland as a result of late Holocene permafrost aggradation and initiation of bare peat surfaces. Quaternary Science Reviews, 2021, 264, 107022.	3.0	3
20	FLUXNET-CH₄: a global, multi-ecosystem dataset and analysis of methane seasonality from freshwater wetlands. Earth System Science Data, 2021, 13, 3607-3689.	9.9	79
21	Subarctic catchment water storage and carbon cycling â€“ Leading the way for future studies using integrated datasets at Pallas, Finland. Hydrological Processes, 2021, 35, e14350.	2.6	10
22	Mosses are Important for Soil Carbon Sequestration in Forested Peatlands. Frontiers in Environmental Science, 2021, 9, .	3.3	9
23	Gap-filling eddy covariance methane fluxes: Comparison of machine learning model predictions and uncertainties at FLUXNET-CH4 wetlands. Agricultural and Forest Meteorology, 2021, 308-309, 108528.	4.8	33
24	Refining the role of phenology in regulating gross ecosystem productivity across European peatlands. Global Change Biology, 2020, 26, 876-887.	9.5	25
25	Detecting northern peatland vegetation patterns at ultraâ€high spatial resolution. Remote Sensing in Ecology and Conservation, 2020, 6, 457-471.	4.3	27
26	The FLUXNET2015 dataset and the ONEFlux processing pipeline for eddy covariance data. Scientific Data, 2020, 7, 225.	5.3	646
27	Effects of drought and meteorological forcing on carbon and water fluxes in Nordic forests during the dry summer of 2018. Philosophical Transactions of the Royal Society B: Biological Sciences, 2020, 375, 20190516.	4.0	35
28	Impact of partial harvest on CH4 and N2O balances of a drained boreal peatland forest. Agricultural and Forest Meteorology, 2020, 295, 108168.	4.8	18
29	Vegetation controls of water and energy balance of a drained peatland forest: Responses to alternative harvesting practices. Agricultural and Forest Meteorology, 2020, 295, 108198.	4.8	31
30	Satellite Determination of Peatland Water Table Temporal Dynamics by Localizing Representative Pixels of A SWIR-Based Moisture Index. Remote Sensing, 2020, 12, 2936.	4.0	16
31	Modeled Microbial Dynamics Explain the Apparent Temperature Sensitivity of Wetland Methane Emissions. Global Biogeochemical Cycles, 2020, 34, e2020GB006678.	4.9	34
32	Effect of the 2018 European drought on methane and carbon dioxide exchange of northern mire ecosystems. Philosophical Transactions of the Royal Society B: Biological Sciences, 2020, 375, 20190517.	4.0	34
33	Increasing contribution of peatlands to boreal evapotranspiration in a warming climate. Nature Climate Change, 2020, 10, 555-560.	18.8	106
34	Stomatal response to decreased relative humidity constrains the acceleration of terrestrial evapotranspiration. Environmental Research Letters, 2020, 15, 094066.	5.2	18
35	Sesquiterpenes dominate monoterpenes in northern wetland emissions. Atmospheric Chemistry and Physics, 2020, 20, 7021-7034.	4.9	18
36	Decreased carbon accumulation feedback driven by climateâ€induced drying of two southern boreal bogs over recent centuries. Global Change Biology, 2020, 26, 2435-2448.	9.5	40

#	Article	IF	Citations
37	A Microbial Functional Groupâ€Based CH₄ Model Integrated Into a Terrestrial Ecosystem Model: Model Structure, Siteâ€Level Evaluation, and Sensitivity Analysis. Journal of Advances in Modeling Earth Systems, 2020, 12, e2019MS001867.	3.8	7
38	Carbonâ€“nitrogen interactions in European forests and semi-natural vegetation â€“ Part 1: Fluxes and budgets of carbon, nitrogen and greenhouse gases from ecosystem monitoring and modelling. Biogeosciences, 2020, 17, 1583-1620.	3.3	21
39	Carbonâ€“nitrogen interactions in European forests and semi-natural vegetation â€“ Part 2: Untangling climatic, edaphic, management and nitrogen deposition effects on carbon sequestration potentials. Biogeosciences, 2020, 17, 1621-1654.	3.3	18
40	The biophysical climate mitigation potential of boreal peatlands during the growing season. Environmental Research Letters, 2020, 15, 104004.	5.2	31
41	Water flow controls the spatial variability of methane emissions in a northern valley fen ecosystem. Biogeosciences, 2020, 17, 6247-6270.	3.3	10
42	PEATâ€CLSM: A Specific Treatment of Peatland Hydrology in the NASA Catchment Land Surface Model. Journal of Advances in Modeling Earth Systems, 2019, 11, 2130-2162.	3.8	40
43	Parameter calibration and stomatal conductance formulation comparison for boreal forests with adaptive population importance sampler in the land surface model JSBACH. Geoscientific Model Development, 2019, 12, 4075-4098.	3.6	10
44	Ecosystem carbon response of an Arctic peatland to simulated permafrost thaw. Global Change Biology, 2019, 25, 1746-1764.	9.5	52
45	Memory effects of climate and vegetation affecting net ecosystem CO2 fluxes in global forests. PLoS ONE, 2019, 14, e0211510.	2.5	58
46	Reviews and syntheses: Greenhouse gas exchange data from drained organic forest soils â€“ a review of current approaches and recommendations for future research. Biogeosciences, 2019, 16, 4687-4703.	3.3	13
47	Greenhouse gas and energy fluxes in a boreal peatland forest after clear-cutting. Biogeosciences, 2019, 16, 3703-3723.	3.3	39
48	Monthly gridded data product of northern wetland methane emissions based on upscaling eddy covariance observations. Earth System Science Data, 2019, 11, 1263-1289.	9.9	69
49	Nitrogen-rich organic soils under warm well-drained conditions are global nitrous oxide emission hotspots. Nature Communications, 2018, 9, 1135.	12.8	98
50	Retrieval of daily gross primary production over Europe and Africa from an ensemble of SEVIRI/MSG products. International Journal of Applied Earth Observation and Geoinformation, 2018, 65, 124-136.	2.8	8
51	Standardisation of chamber technique for CO2, N2O and CH4 fluxes measurements from terrestrial ecosystems. International Agrophysics, 2018, 32, 569-587.	1.7	76
52	Persistent carbon sink at a boreal drained bog forest. Biogeosciences, 2018, 15, 3603-3624.	3.3	47
53	Could continuous cover forestry be an economically and environmentally feasible management option on drained boreal peatlands?. Forest Ecology and Management, 2018, 424, 78-84.	3.2	57
54	Towards long-term standardised carbon and greenhouse gas observations for monitoring Europeâ€™s terrestrial ecosystems: a review. International Agrophysics, 2018, 32, 439-455.	1.7	55

#	Article	IF	Citations
55	Standardisation of eddy-covariance flux measurements of methane and nitrous oxide. International Agrophysics, 2018, 32, 517-549.	1.7	66
56	Ancillary vegetation measurements at ICOS ecosystem stations. International Agrophysics, 2018, 32, 645-664.	1.7	35
57	Measurement of the ¹³C isotopic signature of methane emissions from northern European wetlands. Global Biogeochemical Cycles, 2017, 31, 605-623.	4.9	52
58	Lateral expansion and carbon exchange of a boreal peatland in Finland resulting in 7000 years of positive radiative forcing. Journal of Geophysical Research G: Biogeosciences, 2017, 122, 562-577.	3.0	31
59	Elemental Composition of Natural Nanoparticles and Fine Colloids in European Forest Stream Waters and Their Role as Phosphorus Carriers. Global Biogeochemical Cycles, 2017, 31, 1592-1607.	4.9	48
60	Methane exchange at the peatland forest floor â€“ automatic chamber system exposes the dynamics of small fluxes. Biogeosciences, 2017, 14, 1947-1967.	3.3	24
61	Modelling sun-induced fluorescence and photosynthesis with a land surface model at local and regional scales in northern Europe. Biogeosciences, 2017, 14, 1969-1987.	3.3	40
62	HIMMELI v1.0: HelsinkI Model of MEthane buiLd-up and emIssion for peatlands. Geoscientific Model Development, 2017, 10, 4665-4691.	3.6	24
63	Growing season CH₄ and N₂O fluxes from a subarctic landscape in northern Finland; from chamber to landscape scale. Biogeosciences, 2017, 14, 799-815.	3.3	22
64	Assessing various drought indicators in representing summer drought in boreal forests in Finland. Hydrology and Earth System Sciences, 2016, 20, 175-191.	4.9	36
65	Importance of vegetation classes in modeling CH4 emissions from boreal and subarctic wetlands in Finland. Science of the Total Environment, 2016, 572, 1111-1122.	8.0	23
66	Calibration and validation of a semi-empirical flux ecosystem model for coniferous forests in the Boreal region. Ecological Modelling, 2016, 341, 37-52.	2.5	39
67	Do the energy fluxes and surface conductance of boreal coniferous forests in Europe scale with leaf area?. Global Change Biology, 2016, 22, 4096-4113.	9.5	39
68	Response of boreal lakes to episodic weather-induced events. Inland Waters, 2016, 6, 523-534.	2.2	21
69	Large contribution of boreal upland forest soils to a catchmentâ€scale CH₄ balance in a wet year. Geophysical Research Letters, 2016, 43, 2946-2953.	4.0	41
70	A simple CO2 exchange model simulates the seasonal leaf area development of peatland sedges. Ecological Modelling, 2015, 314, 32-43.	2.5	10
71	CO₂ fluxes and ecosystem dynamics at five European treeless peatlands â€“ merging data and process oriented modeling. Biogeosciences, 2015, 12, 125-146.	3.3	27
72	The uncertain climate footprint of wetlands under human pressure. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, 4594-4599.	7.1	171

#	Article	IF	Citations
73	Studying the impact of living roots on the decomposition of soil organic matter in two different forestry-drained peatlands. Plant and Soil, 2015, 396, 59-72.	3.7	17
74	Nitrous oxide emission budgets and land-use-driven hotspots for organic soils in Europe. Biogeosciences, 2014, 11, 6595-6612.	3.3	68
75	Measurements of CO₂ exchange with an automated chamber system throughout the year: challenges in measuring night-time respiration on porous peat soil. Biogeosciences, 2014, 11, 347-363.	3.3	54
76	Simulation of CO2 and Attribution Analysis at Six European Peatland Sites Using the ECOSSE Model. Water, Air, and Soil Pollution, 2014, 225, 1.	2.4	21
77	Development, carbon accumulation, and radiative forcing of a subarctic fen over the Holocene. Holocene, 2014, 24, 1156-1166.	1.7	26
78	Methane and carbon dioxide fluxes and their regional scalability for the European Arctic wetlands during the MAMM project in summer 2012. Atmospheric Chemistry and Physics, 2014, 14, 13159-13174.	4.9	39
79	Land management and land-cover change haveÂimpacts of similar magnitude on surfaceÂtemperature. Nature Climate Change, 2014, 4, 389-393.	18.8	404
80	Latent heat exchange in the boreal and arctic biomes. Global Change Biology, 2014, 20, 3439-3456.	9.5	52
81	Chamber measured soil respiration: A useful tool for estimating the carbon balance of peatland forest soils?. Forest Ecology and Management, 2012, 277, 132-140.	3.2	32
82	The European land and inland water CO₂, CO, CH₄ and N₂O balance between 2001 and 2005. Biogeosciences, 2012, 9, 3357-3380.	3.3	53
83	Greenhouse gas flux measurements in a forestry-drained peatland indicate a large carbon sink. Biogeosciences, 2011, 8, 3203-3218.	3.3	101
84	Responses of N₂O fluxes to temperature, water table and N deposition in a northern boreal fen. European Journal of Soil Science, 2010, 61, 651-661.	3.9	65
85	Comparison of greenhouse gas fluxes and nitrogen budgets from an ombotrophic bog in Scotland and a minerotrophic sedge fen in Finland. European Journal of Soil Science, 2010, 61, 640-650.	3.9	82
86	The European carbon balance. Part 4: integration of carbon and other traceâ€gas fluxes. Global Change Biology, 2010, 16, 1451-1469.	9.5	157
87	Greenhouse gas fluxes in a drained peatland forest during spring frost-thaw event. Biogeosciences, 2010, 7, 1715-1727.	3.3	39
88	Forestation of boreal peatlands: Impacts of changing albedo and greenhouse gas fluxes on radiative forcing. Journal of Geophysical Research, 2010, 115, .	3.3	64
89	The European carbon balance. Part 4: integration of carbon and other trace-gas fluxes. Global Change Biology, 2009, 16, 2399-2399.	9.5	5
90	Biosphereâ€“atmosphere exchange of reactive nitrogen and greenhouse gases at the NitroEurope core flux measurement sites: Measurement strategy and first data sets. Agriculture, Ecosystems and Environment, 2009, 133, 139-149.	5.3	104

#	Article	IF	Citations
91	Influences of changing land use and CO2 concentration on ecosystem and landscape level carbon and water balances in mountainous terrain of the Stubai Valley, Austria. Global and Planetary Change, 2009, 67, 29-43.	3.5	27
92	Micrometeorological Measurements of Methane and Carbon Dioxide Fluxes at a Municipal Landfill. Environmental Science & Technology, 2007, 41, 2717-2722.	10.0	82
93	Linking flux network measurements to continental scale simulations: ecosystem carbon dioxide exchange capacity under nonâ€waterâ€stressed conditions. Global Change Biology, 2007, 13, 734-760.	9.5	81
94	Wintertime CO2exchange in a boreal agricultural peat soil. Tellus, Series B: Chemical and Physical Meteorology, 2007, 59, 860-873.	1.6	15
95	Partitioning European grassland net ecosystem CO2 exchange into gross primary productivity and ecosystem respiration using light response function analysis. Agriculture, Ecosystems and Environment, 2007, 121, 93-120.	5.3	305
96	Linking flux network measurements to continental scale simulations: ecosystem carbon dioxide exchange capacity under non-water-stressed conditions. Global Change Biology, 2007, .	9.5	0
97	Modeling atmospheric CO₂ concentration profiles and fluxes above sloping terrain at a boreal site. Atmospheric Chemistry and Physics, 2006, 6, 303-314.	4.9	11
98	PIXGRO: A model for simulating the ecosystem CO2 exchange and growth of spring barley. Ecological Modelling, 2006, 190, 260-276.	2.5	33
99	On the separation of net ecosystem exchange into assimilation and ecosystem respiration: review and improved algorithm. Global Change Biology, 2005, 11, 1424-1439.	9.5	2,778
100	Nitrous Oxide Emissions from a Municipal Landfill. Environmental Science & Technology, 2005, 39, 7790-7793.	10.0	89
101	Measuring methane emissions from a landfill using a cost-effective micrometeorological method. Geophysical Research Letters, 2005, 32, n/a-n/a.	4.0	36
102	Annual CO2exchange of a peat field growing spring barley or perennial forage grass. Journal of Geophysical Research, 2004, 109, .	3.3	100
103	Comparison of different chamber techniques for measuring soil CO2 efflux. Agricultural and Forest Meteorology, 2004, 123, 159-176.	4.8	420
104	Soil and total ecosystem respiration in agricultural fields: effect of soil and crop type. Plant and Soil, 2003, 251, 303-317.	3.7	130
105	Methane production and oxidation potentials in relation to water table fluctuations in two boreal mires. Soil Biology and Biochemistry, 1999, 31, 1741-1749.	8.8	158
106	Seasonal variation in CH 4 emissions and production and oxidation potentials at microsites on an oligotrophic pine fen. Oecologia, 1997, 110, 414-422.	2.0	158