Thomas Friborg

List of Publications by Year
in descending order

65 papers	5,193 citations	101496 36 h-index	102432 66 g-index
93 all docs	93 docs citations	93 times ranked	5970 citing authors

#	Article	IF	Citations
1	UAV-borne, LiDAR-based elevation modelling: a method for improving local-scale urban flood risk assessment. Natural Hazards, 2022, 113, 423-451.	1.6	27
2	Explicitly modelling microtopography in permafrost landscapes in a land surface model (JULES) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 702	1.3	6
3	Substantial hysteresis in emergent temperature sensitivity of global wetland CH4 emissions. Nature Communications, 2021, 12, 2266.	5.8	34
4	Deriving Aerodynamic Roughness Length at Ultra-High Resolution in Agricultural Areas Using UAV-Borne LiDAR. Remote Sensing, 2021, 13, 3538.	1.8	5
5	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.	1.9	33
6	Field-scale CH₄ emission at a subarctic mire with heterogeneous permafrost thaw status. Biogeosciences, 2021, 18, 5811-5830.	1.3	5
7	Inference of spatial heterogeneity in surface fluxes from eddy covariance data: A case study from a subarctic mire ecosystem. Agricultural and Forest Meteorology, 2020, 280, 107783.	1.9	17
8	Modeled Microbial Dynamics Explain the Apparent Temperature Sensitivity of Wetland Methane Emissions. Global Biogeochemical Cycles, 2020, 34, e2020GB006678.	1.9	34
9	Increasing contribution of peatlands to boreal evapotranspiration in a warming climate. Nature Climate Change, 2020, 10, 555-560.	8.1	106
10	The biophysical climate mitigation potential of boreal peatlands during the growing season. Environmental Research Letters, 2020, 15, 104004.	2.2	31
11	Volatile organic compound fluxes in a subarctic peatland and lake. Atmospheric Chemistry and Physics, 2020, 20, 13399-13416.	1.9	28
12	Climateâ€Sensitive Controls on Large Spring Emissions of CH₄ and CO₂ From Northern Lakes. Journal of Geophysical Research G: Biogeosciences, 2019, 124, 2379-2399.	1.3	50
13	Model-data fusion to assess year-round CO2 fluxes for an arctic heath ecosystem in West Greenland (69Â°N). Agricultural and Forest Meteorology, 2019, 272-273, 176-186.	1.9	23
14	Large loss of CO2 in winter observed across the northern permafrost region. Nature Climate Change, 2019, 9, 852-857.	8.1	225
15	Monthly gridded data product of northern wetland methane emissions based on upscaling eddy covariance observations. Earth System Science Data, 2019, 11, 1263-1289.	3.7	69
16	ORCHIDEE-PEAT (revision 4596), a model for northern peatland CO₂, water, and energy fluxes on daily to annual scales. Geoscientific Model Development, 2018, 11, 497-519.	1.3	43
17	Direct and indirect controls of the interannual variability in atmospheric CO2 exchange of three contrasting ecosystems in Denmark. Agricultural and Forest Meteorology, 2017, 233, 12-31.	1.9	35
18	Year-round CH₄ and CO₂ flux dynamics in two contrasting freshwater ecosystems of the subarctic. Biogeosciences, 2017, 14, 5189-5216.	1.3	55

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19	Carbon stocks and fluxes in the high latitudes: using site-level data to evaluate Earth system models. Biogeosciences, 2017, 14, 5143-5169.	1.3	43
20	Estimating evaporation with thermal UAV data and two-source energy balance models. Hydrology and Earth System Sciences, 2016, 20, 697-713.	1.9	119
21	Crop water stress maps for an entire growing season from visible and thermal UAV imagery. Biogeosciences, 2016, 13, 6545-6563.	1.3	86
22	Methane dynamics in the subarctic tundra: combining stable isotope analyses, plot- and ecosystem-scale flux measurements. Biogeosciences, 2016, 13, 597-608.	1.3	37
23	Large methane emissions from a subarctic lake during spring thaw: Mechanisms and landscape significance. Journal of Geophysical Research G: Biogeosciences, 2015, 120, 2289-2305.	1.3	70
24	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.	3.3	171
25	Assessing the spatial variability in peak season CO₂ exchange characteristics across the Arctic tundra using a light response curve parameterization. Biogeosciences, 2014, 11, 4897-4912.	1.3	20
26	Partitioning forest evapotranspiration: Interception evaporation and the impact of canopy structure, local and regional advection. Journal of Hydrology, 2014, 517, 677-690.	2.3	36
27	Modeling Canopy CO₂ Exchange in the European Russian Arctic. Arctic, Antarctic, and Alpine Research, 2013, 45, 50-63.	0.4	4
28	Modelling of growing season methane fluxes in a high-Arctic wet tundra ecosystem 1997â€“2010 using in situ and high-resolution satellite data. Tellus, Series B: Chemical and Physical Meteorology, 2013, 65, 19722.	0.8	24
29	Carbon dioxide balance of subarctic tundra from plot to regional scales. Biogeosciences, 2013, 10, 437-452.	1.3	65
30	Climate and site management as driving factors for the atmospheric greenhouse gas exchange of a restored wetland. Biogeosciences, 2013, 10, 39-52.	1.3	51
31	Monitoring the Multi-Year Carbon Balance of a Subarctic Palsa Mire with Micrometeorological Techniques. Ambio, 2012, 41, 207-217.	2.8	60
32	Trends in CO₂ exchange in a high Arctic tundra heath, 2000â€“2010. Journal of Geophysical Research, 2012, 117, .	3.3	63
33	Partitioning of forest evapotranspiration: The impact of edge effects and canopy structure. Agricultural and Forest Meteorology, 2012, 166-167, 86-97.	1.9	25
34	Quantification of C uptake in subarctic birch forest after setback by an extreme insect outbreak. Geophysical Research Letters, 2011, 38, n/a-n/a.	1.5	42
35	Interpreting the variations in atmospheric methane fluxes observed above a restored wetland. Agricultural and Forest Meteorology, 2011, 151, 841-853.	1.9	64
36	Energy Fluxes above Three Disparate Surfaces in a Temperate Mesoscale Coastal Catchment. Vadose Zone Journal, 2011, 10, 54-66.	1.3	41

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37	Catchmentâ€Wide Atmospheric Greenhouse Gas Exchange as Influenced by Land Use Diversity. Vadose Zone Journal, 2011, 10, 67-77.	1.3	16
38	Comparing Evapotranspiration Rates Estimated from Atmospheric Flux and TDR Soil Moisture Measurements. Vadose Zone Journal, 2011, 10, 78-83.	1.3	28
39	Plant-mediated CH4 transport and C gas dynamics quantified in-situ in a Phalaris arundinacea-dominant wetland. Plant and Soil, 2011, 343, 287-301.	1.8	35
40	BVOC ecosystem flux measurements at a high latitude wetland site. Atmospheric Chemistry and Physics, 2010, 10, 1617-1634.	1.9	62
41	Annual cycle of methane emission from a subarctic peatland. Journal of Geophysical Research, 2010, 115, .	3.3	128
42	Biotic, Abiotic, and Management Controls on the Net Ecosystem CO2 Exchange of European Mountain Grassland Ecosystems. Ecosystems, 2008, 11, 1338-1351.	1.6	122
43	Spatial and Interâ€Annual Variability of Trace Gas Fluxes in a Heterogeneous Highâ€Arctic Landscape. Advances in Ecological Research, 2008, 40, 473-498.	1.4	19
44	Highâ€Arctic Soil CO2 and CH4 Production Controlled by Temperature, Water, Freezing and Snow. Advances in Ecological Research, 2008, 40, 441-472.	1.4	33
45	Observations and Status of Peatland Greenhouse Gas Emissions in Europe. Ecological Studies, 2008, , 243-261.	0.4	68
46	A catchment-scale carbon and greenhouse gas budget of a subarctic landscape. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2007, 365, 1643-1656.	1.6	76
47	Methane emissions from western Siberian wetlands: heterogeneity and sensitivity to climate change. Environmental Research Letters, 2007, 2, 045015.	2.2	110
48	Arctic Vegetation Damage by Winter-Generated Coal Mining Pollution Released upon Thawing. Environmental Science & Technology, 2007, 41, 2407-2413.	4.6	38
49	Temperature and snow-melt controls on interannual variability in carbon exchange in the high Arctic. Theoretical and Applied Climatology, 2007, 88, 111-125.	1.3	93
50	Decadal vegetation changes in a northern peatland, greenhouse gas fluxes and net radiative forcing. Global Change Biology, 2006, 12, 2352-2369.	4.2	214
51	Thawing sub-arctic permafrost: Effects on vegetation and methane emissions. Geophysical Research Letters, 2004, 31, .	1.5	423
52	Siberian wetlands: Where a sink is a source. Geophysical Research Letters, 2003, 30, .	1.5	150
53	Surface fluxes of heat and water vapour from sites in the European Arctic. Theoretical and Applied Climatology, 2001, 70, 19-33.	1.3	44
54	Surface energy- and water balance in a high-arcticenvironment in NE Greenland. Theoretical and Applied Climatology, 2001, 70, 35-51.	1.3	31

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55	Seasonal carbon dioxide balance and respiration of a high-arctic fen ecosystem in NE-Greenland. Theoretical and Applied Climatology, 2001, 70, 149-166.	1.3	73
56	Trace gas exchange in a high-Arctic valley: 1. Variationsin CO2and CH4Flux between tundra vegetation types. Global Biogeochemical Cycles, 2000, 14, 701-713.	1.9	143
57	Trace gas exchange in a high-Arctic valley: 2. Landscape CH4fluxes measured and modeled using eddy correlation data. Global Biogeochemical Cycles, 2000, 14, 715-723.	1.9	68
58	Trace gas exchange in a high-Arctic valley: 3. Integrating and scaling CO2fluxes from canopy to landscape using flux data, footprint modeling, and remote sensing. Global Biogeochemical Cycles, 2000, 14, 725-744.	1.9	93
59	Controls on the greenhouse gas exchange of a high-arctic ecosystem. Geografisk Tidsskrift, 1999, 99, 19-26.	0.4	1
60	Models of CO2 and water vapour fluxes from a sparse millet crop in the Sahel. Agricultural and Forest Meteorology, 1999, 93, 7-26.	1.9	14
61	Rapid response of greenhouse gas emission to early spring thaw in a subarctic mire as shown by micrometeorological techniques. Geophysical Research Letters, 1997, 24, 3061-3064.	1.5	82
62	The variability of evaporation during the HAPEX-Sahel Intensive Observation Period. Journal of Hydrology, 1997, 188-189, 385-399.	2.3	96
63	Spatial and temporal variations in net carbon flux during HAPEX-Sahel. Journal of Hydrology, 1997, 188-189, 563-588.	2.3	43
64	A system to measure surface fluxes of momentum, sensible heat, water vapour and carbon dioxide. Journal of Hydrology, 1997, 188-189, 589-611.	2.3	848
65	Carbon dioxide flux, transpiration and light response of millet in the Sahel. Journal of Hydrology, 1997, 188-189, 633-650.	2.3	20