Benjamin Loubet

List of Publications by Year
in descending order

128 papers	5,904 citations	87888 38 h-index	95266 68 g-index
160 all docs	160 docs citations	160 times ranked	6368 citing authors

#	Article	IF	Citations
1	Atmospheric composition change: Ecosystemsâ€“Atmosphere interactions. Atmospheric Environment, 2009, 43, 5193-5267.	4.1	609
2	Dissolved carbon leaching from soil is a crucial component of the net ecosystem carbon balance. Global Change Biology, 2011, 17, 1167-1185.	9.5	374
3	Towards a climate-dependent paradigm of ammonia emission and deposition. Philosophical Transactions of the Royal Society B: Biological Sciences, 2013, 368, 20130166.	4.0	328
4	HONO Emissions from Soil Bacteria as a Major Source of Atmospheric Reactive Nitrogen. Science, 2013, 341, 1233-1235.	12.6	276
5	Challenges in quantifying biosphereâ€“atmosphere exchange of nitrogen species. Environmental Pollution, 2007, 150, 125-139.	7.5	203
6	Effect of management, climate and soil conditions on N2O and NO emissions from an arable crop rotation using high temporal resolution measurements. Agricultural and Forest Meteorology, 2011, 151, 228-240.	4.8	143
7	Climate control of terrestrial carbon exchange across biomes and continents. Environmental Research Letters, 2010, 5, 034007.	5.2	137
8	The mass budget of atmospheric ammonia in woodland within 1 km of livestock buildings. Environmental Pollution, 1998, 102, 343-348.	7.5	133
9	Advances in understanding, models and parameterizations of biosphere-atmosphere ammonia exchange. Biogeosciences, 2013, 10, 5183-5225.	3.3	116
10	Global maps of soil temperature. Global Change Biology, 2022, 28, 3110-3144.	9.5	113
11	Carbon, nitrogen and Greenhouse gases budgets over a four years crop rotation in northern France. Plant and Soil, 2011, 343, 109-137.	3.7	111
12	Field measurements of airborne concentration and deposition rate of maize pollen. Agricultural and Forest Meteorology, 2003, 119, 37-51.	4.8	107
13	Global parameterization and validation of a twoâ€leaf light use efficiency model for predicting gross primary production across FLUXNET sites. Journal of Geophysical Research G: Biogeosciences, 2016, 121, 1045-1072.	3.0	93
14	Modelling airborne concentration and deposition rate of maize pollen. Atmospheric Environment, 2004, 38, 5555-5566.	4.1	80
15	Title is missing!. Plant and Soil, 2001, 228, 131-145.	3.7	79
16	Investigation of the interaction between sources and sinks of atmospheric ammonia in an upland landscape using a simplified dispersion-exchange model. Journal of Geophysical Research, 2001, 106, 24183-24195.	3.3	71
17	Variability in carbon exchange of European croplands. Agriculture, Ecosystems and Environment, 2010, 139, 325-335.	5.3	71
18	Variations in Maize Pollen Emission and Deposition in Relation to Microclimate. Environmental Science & Technology, 2005, 39, 4377-4384.	10.0	67

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19	Seasonal variability of apoplastic NH4 + and pH in an intensively managed grassland. Plant and Soil, 2002, 238, 97-110.	3.7	64
20	Temporal variability in bioassays of the stomatal ammonia compensation point in relation to plant and soil nitrogen parameters in intensively managed grassland. Biogeosciences, 2009, 6, 171-179.	3.3	64
21	SURFATM-NH3: a model combining the surface energy balance and bi-directional exchanges of ammonia applied at the field scale. Biogeosciences, 2009, 6, 1371-1388.	3.3	61
22	Partitioning of ozone deposition over a developed maize crop between stomatal and non-stomatal uptakes, using eddy-covariance flux measurements and modelling. Agricultural and Forest Meteorology, 2009, 149, 1385-1396.	4.8	60
23	Management effects on European cropland respiration. Agriculture, Ecosystems and Environment, 2010, 139, 346-362.	5.3	58
24	The ALFAM2 database on ammonia emission from field-applied manure: Description and illustrative analysis. Agricultural and Forest Meteorology, 2018, 258, 66-79.	4.8	57
25	Dynamics of ammonia exchange with cut grassland: synthesis of results and conclusions of the GRAMINAE Integrated Experiment. Biogeosciences, 2009, 6, 2907-2934.	3.3	55
26	Predicting and partitioning ozone fluxes to maize crops from sowing to harvest: the Surfatm-O₃ model. Biogeosciences, 2011, 8, 2869-2886.	3.3	54
27	Ammonia fluxes in relation to cutting and fertilization of an intensively managed grassland derived from an inter-comparison of gradient measurements. Biogeosciences, 2009, 6, 819-834.	3.3	52
28	A modeling study on mitigation of N2O emissions and NO3 leaching at different agricultural sites across Europe using LandscapeDNDC. Science of the Total Environment, 2016, 553, 128-140.	8.0	52
29	Dynamics of ammonia exchange with cut grassland: strategy and implementation of the GRAMINAE Integrated Experiment. Biogeosciences, 2009, 6, 309-331.	3.3	51
30	ORCHIDEE-CROP (v0), a new process-based agro-land surface model: model description and evaluation over Europe. Geoscientific Model Development, 2016, 9, 857-873.	3.6	51
31	An inverse model to estimate ammonia emissions from fields. European Journal of Soil Science, 2010, 61, 793-805.	3.9	50
32	Are ammonia emissions from field-applied slurry substantially over-estimated in European emission inventories?. Biogeosciences, 2012, 9, 1611-1632.	3.3	50
33	Concentrations and fluxes of isoprene and oxygenated VOCs at a French Mediterranean oak forest. Atmospheric Chemistry and Physics, 2014, 14, 10085-10102.	4.9	50
34	Ozone deposition onto bare soil: A new parameterisation. Agricultural and Forest Meteorology, 2011, 151, 669-681.	4.8	49
35	Ammonia sources and sinks in an intensively managed grassland canopy. Biogeosciences, 2009, 6, 1903-1915.	3.3	48
36	A coupled dispersion and exchange model for short-range dry deposition of atmospheric ammonia. Quarterly Journal of the Royal Meteorological Society, 2006, 132, 1733-1763.	2.7	47

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37	Comparison of Gas Exchange and Bioassay Determinations of the Ammonia Compensation Point in Luzula sylvatica (Huds.) Gaud.. Plant Physiology, 2001, 125, 476-487.	4.8	44
38	Fluxes of NH3and CO2over upland moorland in the vicinity of agricultural land. Journal of Geophysical Research, 2001, 106, 24169-24181.	3.3	43
39	Relationship between ammonia stomatal compensation point and nitrogen metabolism in arable crops: Current status of knowledge and potential modelling approaches. Environmental Pollution, 2008, 154, 390-403.	7.5	43
40	Predicting the net carbon exchanges of crop rotations in Europe with an agro-ecosystem model. Agriculture, Ecosystems and Environment, 2010, 139, 384-395.	5.3	42
41	Eddy covariance measurement of ammonia fluxes: Comparison of high frequency correction methodologies. Agricultural and Forest Meteorology, 2012, 158-159, 30-42.	4.8	42
42	The Impact of Acquisition Date on the Prediction Performance of Topsoil Organic Carbon from Sentinel-2 for Croplands. Remote Sensing, 2019, 11, 2143.	4.0	42
43	An Evaluation of the Wind-tunnel Technique for Estimating Ammonia Volatilization from Land: Part 1. Analysis and Improvement of Accuracy. Biosystems Engineering, 1999, 72, 71-81.	0.4	40
44	Inter-comparison of ammonia fluxes obtained using the Relaxed Eddy Accumulation technique. Biogeosciences, 2009, 6, 2575-2588.	3.3	39
45	Reduced microbial diversity induces larger volatile organic compound emissions from soils. Scientific Reports, 2020, 10, 6104.	3.3	39
46	Modelling ozone deposition fluxes: The relative roles of deposition and detoxification processes. Agricultural and Forest Meteorology, 2011, 151, 480-492.	4.8	38
47	Ammonia Deposition Near Hot Spots: Processes, Models and Monitoring Methods. , 2009, , 205-267.		38
48	Diurnal fluxes of HONO above a crop rotation. Atmospheric Chemistry and Physics, 2017, 17, 6907-6923.	4.9	37
49	Model of stomatal ammonia compensation point (STAMP) in relation to the plant nitrogen and carbon metabolisms and environmental conditions. Ecological Modelling, 2010, 221, 479-494.	2.5	36
50	Comparison of methods for the determination of NO-O₃-NO₂ fluxes and chemical interactions over a bare soil. Atmospheric Measurement Techniques, 2012, 5, 1241-1257.	3.1	36
51	Net carbon storage measured in a mowed and grazed temperate sown grassland shows potential for carbon sequestration under grazed system. Carbon Management, 2014, 5, 131-144.	2.4	36
52	Profiles of volatile organic compound emissions from soils amended with organic waste products. Science of the Total Environment, 2018, 636, 1333-1343.	8.0	35
53	Influence of Dynamic Ozone Dry Deposition on Ozone Pollution. Journal of Geophysical Research D: Atmospheres, 2020, 125, e2020JD032398.	3.3	34
54	Predicting and mitigating the net greenhouse gas emissions of crop rotations in Western Europe. Agricultural and Forest Meteorology, 2011, 151, 1654-1671.	4.8	33

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55	Temporal mosaicking approaches of Sentinel-2 images for extending topsoil organic carbon content mapping in croplands. International Journal of Applied Earth Observation and Geoinformation, 2021, 96, 102277.	2.8	33
56	Intercomparison and assessment of turbulent and physiological exchange parameters of grassland. Biogeosciences, 2009, 6, 1445-1466.	3.3	33
57	Investigating the stomatal, cuticular and soil ammonia fluxes over a growing tritical crop under high acidic loads. Biogeosciences, 2012, 9, 1537-1552.	3.3	32
58	Advection of NH₃ over a pasture field and its effect on gradient flux measurements. Biogeosciences, 2009, 6, 1295-1309.	3.3	29
59	Characterisation of soil emissions of nitric oxide at field and laboratory scale using high resolution method. Atmospheric Environment, 2009, 43, 2648-2658.	4.1	29
60	Turbulence characteristics in grassland canopies and implications for tracer transport. Biogeosciences, 2009, 6, 1519-1537.	3.3	27
61	Inverse dispersion modelling highlights the efficiency of slurry injection to reduce ammonia losses by agriculture in the Po Valley (Italy). Agricultural and Forest Meteorology, 2013, 171-172, 306-318.	4.8	26
62	Assessment of CH4 and CO2 surface emissions from Polesgo's landfill (Ouagadougou, Burkina Faso) based on static chamber method. Advances in Climate Change Research, 2019, 10, 181-191.	5.1	26
63	Fungicide Volatilization Measurements: Inverse Modeling, Role of Vapor Pressure, and State of Foliar Residue. Environmental Science & Technology, 2010, 44, 2522-2528.	10.0	25
64	Filtering of windborne particles by a natural windbreak. Boundary-Layer Meteorology, 2007, 123, 481-509.	2.3	24
65	Modelling diurnal and seasonal patterns of maize pollen emission in relation to meteorological factors. Agricultural and Forest Meteorology, 2011, 151, 11-21.	4.8	24
66	Investigating discrepancies in heat, CO2 fluxes and O3 deposition velocity over maize as measured by the eddy-covariance and the aerodynamic gradient methods. Agricultural and Forest Meteorology, 2013, 169, 35-50.	4.8	24
67	Characterization of total ecosystem-scale biogenic VOC exchange at a Mediterranean oakâ€“hornbeam forest. Atmospheric Chemistry and Physics, 2016, 16, 7171-7194.	4.9	24
68	An Evaluation of the Wind-tunnel Technique for Estimating Ammonia Volatilization from Land: Part 2. Influence of the Tunnel on Transfer Processes. Biosystems Engineering, 1999, 72, 83-92.	0.4	22
69	Assessment of the total, stomatal, cuticular, and soil 2â€‰year ozone budgets of an agricultural field with winter wheat and maize crops. Journal of Geophysical Research G: Biogeosciences, 2013, 118, 1120-1132.	3.0	21
70	Investigating sources and sinks for ammonia exchanges between the atmosphere and a wheat canopy following slurry application with trailing hose. Agricultural and Forest Meteorology, 2015, 207, 11-23.	4.8	21
71	Importance of soil NO emissions for the total atmospheric NOx budget of Saxony, Germany. Atmospheric Environment, 2017, 152, 61-76.	4.1	21
72	Investigating sources of measured forest-atmosphere ammonia fluxes using two-layer bi-directional modelling. Agricultural and Forest Meteorology, 2017, 237-238, 80-94.	4.8	21

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73	Measurement and modelling ozone fluxes over a cut and fertilized grassland. Biogeosciences, 2009, 6, 1987-1999.	3.3	21
74	Multilayer modelling of ozone fluxes on winter wheat reveals large deposition on wet senescing leaves. Agricultural and Forest Meteorology, 2015, 211-212, 58-71.	4.8	20
75	Chemical reaction rates of ozone in water infusions of wheat, beech, oak and pine leaves of different ages. Atmospheric Environment, 2017, 151, 176-187.	4.1	20
76	Estimation of NH₃ emissions from a naturally ventilated livestock farm using local-scale atmospheric dispersion modelling. Biogeosciences, 2009, 6, 2847-2860.	3.3	19
77	Characterization of ozone deposition to a mixed oakâ€“hornbeam forest â€“ flux measurements at five levels above and inside the canopy and their interactions with nitric oxide. Atmospheric Chemistry and Physics, 2018, 18, 17945-17961.	4.9	19
78	Ammonia volatilisation following urea fertilisation in an irrigated sorghum crop in Italy. Agricultural and Forest Meteorology, 2014, 195-196, 179-191.	4.8	18
79	Comparative study of biogenic volatile organic compounds fluxes by wheat, maize and rapeseed with dynamic chambers over a short period in northern France. Atmospheric Environment, 2019, 214, 116855.	4.1	18
80	Soil and vegetation-atmosphere exchange of NO, NH 3 , and N 2 O from field measurements in a semi arid grazed ecosystem in Senegal. Atmospheric Environment, 2017, 156, 36-51.	4.1	17
81	A top-down approach of surface carbonyl sulfide exchange by a Mediterranean oak forest ecosystem in southern France. Atmospheric Chemistry and Physics, 2016, 16, 14909-14923.	4.9	16
82	Varying applicability of four different satellite-derived soil moisture products to global gridded crop model evaluation. International Journal of Applied Earth Observation and Geoinformation, 2016, 48, 51-60.	2.8	16
83	A method for measuring the settling velocity distribution of large biotic particles. Aerobiologia, 2007, 23, 159-169.	1.7	15
84	Observed volatilization fluxes of S-metolachlor and benoxacor applied on soil with and without crop residues. Environmental Science and Pollution Research, 2017, 24, 3985-3996.	5.3	15
85	Ammonia stomatal compensation point of young oilseed rape leaves during dark/light cycles under various nitrogen nutritions. Agriculture, Ecosystems and Environment, 2009, 133, 170-182.	5.3	14
86	Modelling agro-forestry scenarios for ammonia abatement in the landscape. Environmental Research Letters, 2014, 9, 125001.	5.2	14
87	Nitrogen oxides and ozone fluxes from an oilseed-rape management cycle: the influence of cattle slurry application. Biogeosciences, 2017, 14, 2225-2244.	3.3	14
88	Nitrogen use efficiency and N₂O and NH₃ losses attributed to three fertiliser types applied to an intensively managed silage crop. Biogeosciences, 2019, 16, 4731-4745.	3.3	14
89	Validation of Space-Based Albedo Products from Upscaled Tower-Based Measurements Over Heterogeneous and Homogeneous Landscapes. Remote Sensing, 2020, 12, 833.	4.0	14
90	Soil ozone deposition: Dependence of soil resistance to soil texture. Atmospheric Environment, 2019, 199, 202-209.	4.1	13

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91	Evaluation of a new inference method for estimating ammonia volatilisation from multiple agronomic plots. Biogeosciences, 2018, 15, 3439-3460.	3.3	12
92	Accounting for Surface Cattle Slurry in Ammonia Volatilization Models: The Case of Volt'Air. Soil Science Society of America Journal, 2012, 76, 2184-2194.	2.2	11
93	Simulating the net ecosystem CO2 exchange and its components over winter wheat cultivation sites across a large climate gradient in Europe using the ORCHIDEE-STICS generic model. Agriculture, Ecosystems and Environment, 2016, 226, 1-17.	5.3	11
94	Characterization of particulate and gaseous pollutants from a French dairy and sheep farm. Science of the Total Environment, 2020, 712, 135598.	8.0	11
95	Ammonia, nitrous oxide, carbon dioxide, and water vapor fluxes after green manuring of faba bean under Mediterranean climate. Agriculture, Ecosystems and Environment, 2021, 315, 107439.	5.3	11
96	Nitrogen flows and fate in rural landscapes. , 0, , 229-248.		10
97	Modelling landâ€“atmosphere daily exchanges of NO, NH₃, and CO₂ in a semi-arid grazed ecosystem in Senegal. Biogeosciences, 2019, 16, 2049-2077.	3.3	10
98	Title is missing!. Water, Air and Soil Pollution, 2001, 1, 157-166.	0.8	9
99	Gaseous Deposition Contributes to the Contamination of Surface Waters by Pesticides Close to Treated Fields. A Process-Based Model Study. Environmental Science & Technology, 2013, 47, 14250-14257.	10.0	9
100	New particle formation from agricultural recycling of organic waste products. Npj Climate and Atmospheric Science, 2021, 4, .	6.8	9
101	Biophysical characteristics of maize pollen: Variability during emission and consequences on cross-pollination risks. Field Crops Research, 2012, 127, 51-63.	5.1	8
102	Cross-correlations of Biogenic Volatile Organic Compounds (BVOC) emissions typify different phenological stages and stressful events in a Mediterranean Sorghum plantation. Agricultural and Forest Meteorology, 2021, 303, 108380.	4.8	8
103	Volatile organic compound fluxes over a winter wheat field by PTR-Qi-TOF-MS and eddy covariance. Atmospheric Chemistry and Physics, 2022, 22, 2817-2842.	4.9	8
104	Impact of parameterization choices on the restitution of ozone deposition over vegetation. Atmospheric Environment, 2018, 178, 49-65.	4.1	6
105	Monoterpene Chemical Speciation with High Time Resolution Using a FastGC/PTR-MS: Results from the COV3ER Experiment on Quercus ilex. Atmosphere, 2020, 11, 690.	2.3	6
106	Neural Network Analysis to Evaluate Ozone Damage to Vegetation Under Different Climatic Conditions. Frontiers in Forests and Global Change, 2020, 3, .	2.3	6
107	A multiresidue analytical method on air and rainwater for assessing pesticide atmospheric contamination in untreated areas. Science of the Total Environment, 2022, 823, 153582.	8.0	6
108	Characterization of Total OH Reactivity in a Rapeseed Field: Results from the COV3ER Experiment in April 2017. Atmosphere, 2020, 11, 261.	2.3	5

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109	Improving the simulation of soil temperature within the EPIC model. Environmental Modelling and Software, 2021, 144, 105140.	4.5	5
110	Advances in Understanding, Models and Parameterizations of Biosphere-Atmosphere Ammonia Exchange. , 2013, , 11-84.		5
111	Measurement of short-range dispersion and deposition of ammonia over a maize canopy. Agricultural and Forest Meteorology, 2003, 114, 175-196.	4.8	4
112	Modelling Atmosphere-Biosphere Exchange of Ozone and Nitrogen Oxides. , 2015, , 85-105.		4
113	Evaluation of new flux attribution methods for mapping N 2 O emissions at the landscape scale. Agriculture, Ecosystems and Environment, 2017, 247, 9-22.	5.3	4
114	Measurement report: Biogenic volatile organic compound emission profiles of rapeseed leaf litter and its secondary organic aerosol formation potential. Atmospheric Chemistry and Physics, 2021, 21, 12613-12629.	4.9	4
115	Chemical identification and quantification of volatile organic compounds emitted by sewage sludge. Science of the Total Environment, 2022, 838, 155948.	8.0	4
116	Modelling and inference of maize pollen emission rate with a Lagrangian dispersal model using Monte Carlo method. Journal of Agricultural Science, 2020, 158, 383-395.	1.3	3
117	Short-Term Effect of Green Waste and Sludge Amendment on Soil Microbial Diversity and Volatile Organic Compound Emissions. Applied Microbiology, 2021, 1, 123-141.	1.6	2
118	Effect of senescence on biogenic volatile organic compound fluxes in wheat plants. Atmospheric Environment, 2021, 266, 118665.	4.1	2
119	Experimental Assessment of Atmospheric Ammonia Dispersion and Short Range Dry Deposition in a Maize Canopy. , 2001, , 157-166.		2
120	Gaseous emissions at different space scales in the nitrogen cycle: A review. Cahiers Agricultures, 2013, 22, 258-271.	0.9	2
121	DÃ©pÃ´t de polluants sur les espaces agricoles Ã proximitÃ© des voies de transport en ÃŽle-de-France. VertigO: La Revue Electronique En Sciences De L'environnement, 2013, , .	0.1	1
122	Mechanisms of Pollutant Exchange at Soil-Vegetation-Atmosphere Interfaces and Atmospheric Fate. , 2020, , 61-96.		1
123	Measuring Air Pollutant Concentrations and Fluxes. , 2020, , 119-157.		1
124	Modelling Exchanges: From the Process Scale to the Regional Scale. , 2020, , 159-207.		1
125	Assessment Methods for Ammonia Hot-Spots. , 2009, , 391-407.		0
126	In-Canopy Turbulenceâ€"State of the Art and Potential Improvements. , 2015, , 215-223.		0

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127	O3 and NOx Exchange. , 2015, , 163-167.		0
128	Reducing the Impacts of Agriculture on Air Quality. , 2020, , 245-282.		0