

Benjamin Loubet

List of Publications by Year in descending order

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128
papers

5,904
citations

87886

38
h-index

95259

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 N ₂ O 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 NH ₄ ⁺ and pH in an intensively managed grassland. <i>Plant and Soil</i> , 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. <i>Biogeosciences</i> , 2009, 6, 171-179.	3.3	64
21	SURFATM-NH ₃ : a model combining the surface energy balance and bi-directional exchanges of ammonia applied at the field scale. <i>Biogeosciences</i> , 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. <i>Agricultural and Forest Meteorology</i> , 2009, 149, 1385-1396.	4.8	60
23	Management effects on European cropland respiration. <i>Agriculture, Ecosystems and Environment</i> , 2010, 139, 346-362.	5.3	58
24	The ALFAM2 database on ammonia emission from field-applied manure: Description and illustrative analysis. <i>Agricultural and Forest Meteorology</i> , 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. <i>Biogeosciences</i> , 2009, 6, 2907-2934.	3.3	55
26	Predicting and partitioning ozone fluxes to maize crops from sowing to harvest: the Surfatom-O ₃ model. <i>Biogeosciences</i> , 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. <i>Biogeosciences</i> , 2009, 6, 819-834.	3.3	52
28	A modeling study on mitigation of N ₂ O emissions and NO ₃ leaching at different agricultural sites across Europe using LandscapeDNDC. <i>Science of the Total Environment</i> , 2016, 553, 128-140.	8.0	52
29	Dynamics of ammonia exchange with cut grassland: strategy and implementation of the GRAMINAE Integrated Experiment. <i>Biogeosciences</i> , 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. <i>Geoscientific Model Development</i> , 2016, 9, 857-873.	3.6	51
31	An inverse model to estimate ammonia emissions from fields. <i>European Journal of Soil Science</i> , 2010, 61, 793-805.	3.9	50
32	Are ammonia emissions from field-applied slurry substantially over-estimated in European emission inventories?. <i>Biogeosciences</i> , 2012, 9, 1611-1632.	3.3	50
33	Concentrations and fluxes of isoprene and oxygenated VOCs at a French Mediterranean oak forest. <i>Atmospheric Chemistry and Physics</i> , 2014, 14, 10085-10102.	4.9	50
34	Ozone deposition onto bare soil: A new parameterisation. <i>Agricultural and Forest Meteorology</i> , 2011, 151, 669-681.	4.8	49
35	Ammonia sources and sinks in an intensively managed grassland canopy. <i>Biogeosciences</i> , 2009, 6, 1903-1915.	3.3	48
36	A coupled dispersion and exchange model for short-range dry deposition of atmospheric ammonia. <i>Quarterly Journal of the Royal Meteorological Society</i> , 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 <i>Luzula sylvatica</i> (Huds.) Gaud.. <i>Plant Physiology</i> , 2001, 125, 476-487.	4.8	44
38	Fluxes of NH ₃ and CO ₂ over upland moorland in the vicinity of agricultural land. <i>Journal of Geophysical Research</i> , 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. <i>Environmental Pollution</i> , 2008, 154, 390-403.	7.5	43
40	Predicting the net carbon exchanges of crop rotations in Europe with an agro-ecosystem model. <i>Agriculture, Ecosystems and Environment</i> , 2010, 139, 384-395.	5.3	42
41	Eddy covariance measurement of ammonia fluxes: Comparison of high frequency correction methodologies. <i>Agricultural and Forest Meteorology</i> , 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. <i>Remote Sensing</i> , 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. <i>Biosystems Engineering</i> , 1999, 72, 71-81.	0.4	40
44	Inter-comparison of ammonia fluxes obtained using the Relaxed Eddy Accumulation technique. <i>Biogeosciences</i> , 2009, 6, 2575-2588.	3.3	39
45	Reduced microbial diversity induces larger volatile organic compound emissions from soils. <i>Scientific Reports</i> , 2020, 10, 6104.	3.3	39
46	Modelling ozone deposition fluxes: The relative roles of deposition and detoxification processes. <i>Agricultural and Forest Meteorology</i> , 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. <i>Atmospheric Chemistry and Physics</i> , 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. <i>Ecological Modelling</i> , 2010, 221, 479-494.	2.5	36
50	Comparison of methods for the determination of NO ₂ and NO ₃ fluxes and chemical interactions over a bare soil. <i>Atmospheric Measurement Techniques</i> , 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. <i>Carbon Management</i> , 2014, 5, 131-144.	2.4	36
52	Profiles of volatile organic compound emissions from soils amended with organic waste products. <i>Science of the Total Environment</i> , 2018, 636, 1333-1343.	8.0	35
53	Influence of Dynamic Ozone Dry Deposition on Ozone Pollution. <i>Journal of Geophysical Research D: Atmospheres</i> , 2020, 125, e2020JD032398.	3.3	34
54	Predicting and mitigating the net greenhouse gas emissions of crop rotations in Western Europe. <i>Agricultural and Forest Meteorology</i> , 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. <i>International Journal of Applied Earth Observation and Geoinformation</i> , 2021, 96, 102277.	2.8	33
56	Intercomparison and assessment of turbulent and physiological exchange parameters of grassland. <i>Biogeosciences</i> , 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. <i>Biogeosciences</i> , 2012, 9, 1537-1552.	3.3	32
58	Advection of NH ₃ over a pasture field and its effect on gradient flux measurements. <i>Biogeosciences</i> , 2009, 6, 1295-1309.	3.3	29
59	Characterisation of soil emissions of nitric oxide at field and laboratory scale using high resolution method. <i>Atmospheric Environment</i> , 2009, 43, 2648-2658.	4.1	29
60	Turbulence characteristics in grassland canopies and implications for tracer transport. <i>Biogeosciences</i> , 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). <i>Agricultural and Forest Meteorology</i> , 2013, 171-172, 306-318.	4.8	26
62	Assessment of CH ₄ and CO ₂ surface emissions from Polesgo's landfill (Ouagadougou, Burkina Faso) based on static chamber method. <i>Advances in Climate Change Research</i> , 2019, 10, 181-191.	5.1	26
63	Fungicide Volatilization Measurements: Inverse Modeling, Role of Vapor Pressure, and State of Foliar Residue. <i>Environmental Science & Technology</i> , 2010, 44, 2522-2528.	10.0	25
64	Filtering of windborne particles by a natural windbreak. <i>Boundary-Layer Meteorology</i> , 2007, 123, 481-509.	2.3	24
65	Modelling diurnal and seasonal patterns of maize pollen emission in relation to meteorological factors. <i>Agricultural and Forest Meteorology</i> , 2011, 151, 11-21.	4.8	24
66	Investigating discrepancies in heat, CO ₂ fluxes and O ₃ deposition velocity over maize as measured by the eddy-covariance and the aerodynamic gradient methods. <i>Agricultural and Forest Meteorology</i> , 2013, 169, 35-50.	4.8	24
67	Characterization of total ecosystem-scale biogenic VOC exchange at a Mediterranean oak "hornbeam forest. <i>Atmospheric Chemistry and Physics</i> , 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. <i>Biosystems Engineering</i> , 1999, 72, 83-92.	0.4	22
69	Assessment of the total, stomatal, cuticular, and soil %year ozone budgets of an agricultural field with winter wheat and maize crops. <i>Journal of Geophysical Research G: Biogeosciences</i> , 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. <i>Agricultural and Forest Meteorology</i> , 2015, 207, 11-23.	4.8	21
71	Importance of soil NO emissions for the total atmospheric NO _x budget of Saxony, Germany. <i>Atmospheric Environment</i> , 2017, 152, 61-76.	4.1	21
72	Investigating sources of measured forest-atmosphere ammonia fluxes using two-layer bi-directional modelling. <i>Agricultural and Forest Meteorology</i> , 2017, 237-238, 80-94.	4.8	21

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73	Measurement and modelling ozone fluxes over a cut and fertilized grassland. <i>Biogeosciences</i> , 2009, 6, 1987-1999.	3.3	21
74	Multilayer modelling of ozone fluxes on winter wheat reveals large deposition on wet senescing leaves. <i>Agricultural and Forest Meteorology</i> , 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. <i>Atmospheric Environment</i> , 2017, 151, 176-187.	4.1	20
76	Estimation of NH_3 emissions from a naturally ventilated livestock farm using local-scale atmospheric dispersion modelling. <i>Biogeosciences</i> , 2009, 6, 2847-2860.	3.3	19
77	Characterization of ozone deposition to a mixed oak-hornbeam forest – flux measurements at five levels above and inside the canopy and their interactions with nitric oxide. <i>Atmospheric Chemistry and Physics</i> , 2018, 18, 17945-17961.	4.9	19
78	Ammonia volatilisation following urea fertilisation in an irrigated sorghum crop in Italy. <i>Agricultural and Forest Meteorology</i> , 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. <i>Atmospheric Environment</i> , 2019, 214, 116855.	4.1	18
80	Soil and vegetation-atmosphere exchange of NO , NH_3 , and N_2O from field measurements in a semi arid grazed ecosystem in Senegal. <i>Atmospheric Environment</i> , 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. <i>Atmospheric Chemistry and Physics</i> , 2016, 16, 14909-14923.	4.9	16
82	Varying applicability of four different satellite-derived soil moisture products to global gridded crop model evaluation. <i>International Journal of Applied Earth Observation and Geoinformation</i> , 2016, 48, 51-60.	2.8	16
83	A method for measuring the settling velocity distribution of large biotic particles. <i>Aerobiologia</i> , 2007, 23, 159-169.	1.7	15
84	Observed volatilization fluxes of S-metolachlor and benoxacor applied on soil with and without crop residues. <i>Environmental Science and Pollution Research</i> , 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. <i>Agriculture, Ecosystems and Environment</i> , 2009, 133, 170-182.	5.3	14
86	Modelling agro-forestry scenarios for ammonia abatement in the landscape. <i>Environmental Research Letters</i> , 2014, 9, 125001.	5.2	14
87	Nitrogen oxides and ozone fluxes from an oilseed-rape management cycle: the influence of cattle slurry application. <i>Biogeosciences</i> , 2017, 14, 2225-2244.	3.3	14
88	Nitrogen use efficiency and N_2O and NH_3 losses attributed to three fertiliser types applied to an intensively managed silage crop. <i>Biogeosciences</i> , 2019, 16, 4731-4745.	3.3	14
89	Validation of Space-Based Albedo Products from Upscaled Tower-Based Measurements Over Heterogeneous and Homogeneous Landscapes. <i>Remote Sensing</i> , 2020, 12, 833.	4.0	14
90	Soil ozone deposition: Dependence of soil resistance to soil texture. <i>Atmospheric Environment</i> , 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. <i>Biogeosciences</i> , 2018, 15, 3439-3460.	3.3	12
92	Accounting for Surface Cattle Slurry in Ammonia Volatilization Models: The Case of Volt'Air. <i>Soil Science Society of America Journal</i> , 2012, 76, 2184-2194.	2.2	11
93	Simulating the net ecosystem CO ₂ exchange and its components over winter wheat cultivation sites across a large climate gradient in Europe using the ORCHIDEE-STICS generic model. <i>Agriculture, Ecosystems and Environment</i> , 2016, 226, 1-17.	5.3	11
94	Characterization of particulate and gaseous pollutants from a French dairy and sheep farm. <i>Science of the Total Environment</i> , 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. <i>Agriculture, Ecosystems and Environment</i> , 2021, 315, 107439.	5.3	11
96	Nitrogen flows and fate in rural landscapes. , 0, , 229-248.		10
97	Modelling land-atmosphere daily exchanges of NO, NH ₃ , and CO ₂ in a semi-arid grazed ecosystem in Senegal. <i>Biogeosciences</i> , 2019, 16, 2049-2077.	3.3	10
98	Title is missing!. <i>Water, Air and Soil Pollution</i> , 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. <i>Environmental Science & Technology</i> , 2013, 47, 14250-14257.	10.0	9
100	New particle formation from agricultural recycling of organic waste products. <i>Npj Climate and Atmospheric Science</i> , 2021, 4, .	6.8	9
101	Biophysical characteristics of maize pollen: Variability during emission and consequences on cross-pollination risks. <i>Field Crops Research</i> , 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. <i>Agricultural and Forest Meteorology</i> , 2021, 303, 108380.	4.8	8
103	Volatile organic compound fluxes over a winter wheat field by PTR-Qi-TOF-MS and eddy covariance. <i>Atmospheric Chemistry and Physics</i> , 2022, 22, 2817-2842.	4.9	8
104	Impact of parameterization choices on the restitution of ozone deposition over vegetation. <i>Atmospheric Environment</i> , 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 <i>Quercus ilex</i> . <i>Atmosphere</i> , 2020, 11, 690.	2.3	6
106	Neural Network Analysis to Evaluate Ozone Damage to Vegetation Under Different Climatic Conditions. <i>Frontiers in Forests and Global Change</i> , 2020, 3, .	2.3	6
107	A multiresidue analytical method on air and rainwater for assessing pesticide atmospheric contamination in untreated areas. <i>Science of the Total Environment</i> , 2022, 823, 153582.	8.0	6
108	Characterization of Total OH Reactivity in a Rapeseed Field: Results from the COV3ER Experiment in April 2017. <i>Atmosphere</i> , 2020, 11, 261.	2.3	5

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109	Improving the simulation of soil temperature within the EPIC model. <i>Environmental Modelling and Software</i> , 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. <i>Agricultural and Forest Meteorology</i> , 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. <i>Agriculture, Ecosystems and Environment</i> , 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. <i>Atmospheric Chemistry and Physics</i> , 2021, 21, 12613-12629.	4.9	4
115	Chemical identification and quantification of volatile organic compounds emitted by sewage sludge. <i>Science of the Total Environment</i> , 2022, 838, 155948.	8.0	4
116	Modelling and inference of maize pollen emission rate with a Lagrangian dispersal model using Monte Carlo method. <i>Journal of Agricultural Science</i> , 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. <i>Applied Microbiology</i> , 2021, 1, 123-141.	1.6	2
118	Effect of senescence on biogenic volatile organic compound fluxes in wheat plants. <i>Atmospheric Environment</i> , 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. <i>Cahiers Agricultures</i> , 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. <i>VertigO: La Revue Electronique En Sciences De L'environnement</i> , 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