Emanuele Lugato

List of Publications by Year
in descending order

70 papers	9,175 citations	61857 43 h-index	91712 69 g-index
75 all docs	75 docs citations	75 times ranked	9738 citing authors

#	Article	IF	Citations
1	An assessment of the global impact of 21st century land use change on soil erosion. Nature Communications, 2017, 8, 2013.	5.8	1,398
2	The new assessment of soil loss by water erosion in Europe. Environmental Science and Policy, 2015, 54, 438-447.	2.4	825
3	Land use and climate change impacts on global soil erosion by water (2015-2070). Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 21994-22001.	3.3	622
4	Soil carbon storage informed by particulate and mineral-associated organic matter. Nature Geoscience, 2019, 12, 989-994.	5.4	588
5	Estimating the soil erosion cover-management factor at the European scale. Land Use Policy, 2015, 48, 38-50.	2.5	516
6	Biochar as a strategy to sequester carbon and increase yield in durum wheat. European Journal of Agronomy, 2011, 34, 231-238.	1.9	355
7	A flexible unmanned aerial vehicle for precision agriculture. Precision Agriculture, 2012, 13, 517-523.	3.1	259
8	Impact of biochar application on plant water relations in Vitis vinifera (L.). European Journal of Agronomy, 2014, 53, 38-44.	1.9	251
9	Copper distribution in European topsoils: An assessment based on LUCAS soil survey. Science of the Total Environment, 2018, 636, 282-298.	3.9	240
10	Cost of agricultural productivity loss due to soil erosion in the European Union: From direct cost evaluation approaches to the use of macroeconomic models. Land Degradation and Development, 2018, 29, 471-484.	1.8	214
11	Potential carbon sequestration of European arable soils estimated by modelling a comprehensive set of management practices. Global Change Biology, 2014, 20, 3557-3567.	4.2	181
12	A new baseline of organic carbon stock in European agricultural soils using a modelling approach. Global Change Biology, 2014, 20, 313-326.	4.2	176
13	Can N₂O emissions offset the benefits from soil organic carbon storage?. Global Change Biology, 2021, 27, 237-256.	4.2	174
14	How does tillage intensity affect soil organic carbon? A systematic review. Environmental Evidence, 2017, 6, .	1.1	171
15	Different climate sensitivity of particulate and mineral-associated soil organic matter. Nature Geoscience, 2021, 14, 295-300.	5.4	164
16	Mapping LUCAS topsoil chemical properties at European scale using Gaussian process regression. Geoderma, 2019, 355, 113912.	2.3	148
17	A linkage between the biophysical and the economic: Assessing the global market impacts of soil erosion. Land Use Policy, 2019, 86, 299-312.	2.5	143
18	A New Assessment of Soil Loss Due to Wind Erosion in European Agricultural Soils Using a Quantitative Spatially Distributed Modelling Approach. Land Degradation and Development, 2017, 28, 335-344.	1.8	125

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19	Mitigation potential of soil carbon management overestimated by neglecting N2O emissions. Nature Climate Change, 2018, 8, 219-223.	8.1	122
20	Towards a Panâ€European Assessment of Land Susceptibility to Wind Erosion. Land Degradation and Development, 2016, 27, 1093-1105.	1.8	116
21	A step towards a holistic assessment of soil degradation in Europe: Coupling on-site erosion with sediment transfer and carbon fluxes. Environmental Research, 2018, 161, 291-298.	3.7	116
22	Low stabilization of aboveground crop residue carbon in sandy soils of Swedish long-term experiments. Geoderma, 2015, 237-238, 246-255.	2.3	109
23	Effect of Good Agricultural and Environmental Conditions on erosion and soil organic carbon balance: A national case study. Land Use Policy, 2016, 50, 408-421.	2.5	104
24	Manure management and soil biodiversity: Towards more sustainable food systems in the EU. Agricultural Systems, 2021, 194, 103251.	3.2	98
25	A Soil Erosion Indicator for Supporting Agricultural, Environmental and Climate Policies in the European Union. Remote Sensing, 2020, 12, 1365.	1.8	97
26	Potential Sources of Anthropogenic Copper Inputs to European Agricultural Soils. Sustainability, 2018, 10, 2380.	1.6	95
27	Optimal energy use of agricultural crop residues preserving soil organic carbon stocks in Europe. Renewable and Sustainable Energy Reviews, 2015, 44, 519-529.	8.2	90
28	Surface albedo following biochar application in durum wheat. Environmental Research Letters, 2012, 7, 014025.	2.2	89
29	Methane and carbon dioxide fluxes and source partitioning in urban areas: The case study of Florence, Italy. Environmental Pollution, 2012, 164, 125-131.	3.7	84
30	Unifying soil organic matter formation and persistence frameworks: the MEMS model. Biogeosciences, 2019, 16, 1225-1248.	1.3	81
31	Integrated and spatially explicit assessment of sustainable crop residues potential in Europe. Biomass and Bioenergy, 2019, 122, 257-269.	2.9	77
32	Soil organic carbon (SOC) dynamics with and without residue incorporation in relation to different nitrogen fertilisation rates. Geoderma, 2006, 135, 315-321.	2.3	76
33	Long-term effects of recommended management practices on soil carbon changes and sequestration in north-eastern Italy. Soil Use and Management, 2006, 22, 71-81.	2.6	76
34	Distribution of organic and humic carbon in wet-sieved aggregates of different soils under long-term fertilization experiment. Geoderma, 2010, 157, 80-85.	2.3	75
35	Soil carbon, multiple benefits. Environmental Development, 2015, 13, 33-38.	1.8	75
36	Climate change impacts of power generation from residual biomass. Biomass and Bioenergy, 2016, 89, 146-158.	2.9	74

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37	Soil erosion is unlikely to drive a future carbon sink in Europe. Science Advances, 2018, 4, eaau3523.	4.7	67
38	Quantifying the erosion effect on current carbon budget of European agricultural soils at high spatial resolution. Global Change Biology, 2016, 22, 1976-1984.	4.2	65
39	Potential carbon sequestration in a cultivated soil under different climate change scenarios: A modelling approach for evaluating promising management practices in north-east Italy. Agriculture, Ecosystems and Environment, 2008, 128, 97-103.	2.5	59
40	Application of DNDC biogeochemistry model to estimate greenhouse gas emissions from Italian agricultural areas at high spatial resolution. Agriculture, Ecosystems and Environment, 2010, 139, 546-556.	2.5	52
41	The Application of Biochar in the EU: Challenges and Opportunities. Agronomy, 2013, 3, 462-473.	1.3	52
42	Modelling soil organic carbon dynamics in two long-term experiments of north-eastern Italy. Agriculture, Ecosystems and Environment, 2007, 120, 423-432.	2.5	51
43	How does tillage intensity affect soil organic carbon? A systematic review protocol. Environmental Evidence, 2016, 5, .	1.1	51
44	An integrated non-point source model-GIS system for selecting criteria of best management practices in the Po Valley, North Italy. Agriculture, Ecosystems and Environment, 2004, 102, 247-262.	2.5	45
45	Nitrate concentrations in groundwater under contrasting agricultural management practices in the low plains of Italy. Agriculture, Ecosystems and Environment, 2012, 147, 47-56.	2.5	45
46	What are the effects of agricultural management on soil organic carbon in boreo-temperate systems?. Environmental Evidence, 2015, 4, .	1.1	42
47	Relationship between aggregate pore size distribution and organicâ€"humic carbon in contrasting soils. Soil and Tillage Research, 2009, 103, 153-157.	2.6	37
48	Olsen phosphorus, exchangeable cations and salinity in two long-term experiments of north-eastern Italy and assessment of soil quality evolution. Agriculture, Ecosystems and Environment, 2008, 124, 85-96.	2.5	36
49	What are the effects of agricultural management on soil organic carbon (SOC) stocks?. Environmental Evidence, 2014, 3, .	1.1	36
50	An energyâ€biochar chain involving biomass gasification and rice cultivation in Northern Italy. GCB Bioenergy, 2013, 5, 192-201.	2.5	34
51	Characterization of Humic Carbon in Soil Aggregates in a Longâ€term Experiment with Manure and Mineral Fertilization. Soil Science Society of America Journal, 2012, 76, 880-890.	1.2	33
52	Land use change and soil organic carbon dynamics in Mediterranean agro-ecosystems: The case study of Pianosa Island. Geoderma, 2012, 175-176, 29-36.	2.3	31
53	Maximising climate mitigation potential by carbon and radiative agricultural land management with cover crops. Environmental Research Letters, 2020, 15, 094075.	2.2	26
54	Reply to â€œThe new assessment of soil loss by water erosion in Europe. Panagos P. et al., 2015 Environ. Sci. Policy 54, 438â€"447â€"A responseâ€by Evans and Boardman [Environ. Sci. Policy 58, 11â€"15]. Environmental Science and Policy, 2016, 59, 53-57.	2.4	24

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55	Complementing the topsoil information of the Land Use/Land Cover Area Frame Survey (LUCAS) with modelled N2O emissions. PLoS ONE, 2017, 12, e0176111.	1.1	23
56	Integrated management for sustainable cropping systems: Looking beyond the greenhouse balance at the field scale. Global Change Biology, 2020, 26, 2584-2598.	4.2	23
57	Carbon sequestration capacity and productivity responses of Mediterranean olive groves under future climates and management options. Mitigation and Adaptation Strategies for Global Change, 2019, 24, 467-491.	1.0	18
58	Reply to the comment on â€œThe new assessment of soil loss by water erosion in Europeâ€•by Fiener & Auerswald. Environmental Science and Policy, 2016, 57, 143-150.	2.4	16
59	Lateral carbon transfer from erosion in noncroplands matters. Global Change Biology, 2018, 24, 3283-3284.	4.2	15
60	Assessing the Climate Regulation Potential of Agricultural Soils Using a Decision Support Tool Adapted to Stakeholders' Needs and Possibilities. Frontiers in Environmental Science, 2019, 7, .	1.5	15
61	Using Diffuse Reflectance Spectroscopy as a High Throughput Method for Quantifying Soil C and N and Their Distribution in Particulate and Mineral-Associated Organic Matter Fractions. Frontiers in Environmental Science, 2021, 9, .	1.5	13
62	Modelling Soil Organic Carbon Changes Under Different Maize Cropping Scenarios for Cellulosic Ethanol in Europe. Bioenergy Research, 2015, 8, 537-545.	2.2	12
63	A grassland strategy for farming systems in Europe to mitigate GHG emissionsâ€"An integrated spatially differentiated modelling approach. Land Use Policy, 2016, 58, 318-334.	2.5	11
64	Spatial evaluation and tradeâ€off analysis of soil functions through Bayesian networks. European Journal of Soil Science, 2021, 72, 1575-1589.	1.8	11
65	Phosphorus plant removal from European agricultural land. Journal Fur Verbraucherschutz Und Lebensmittelsicherheit, 2022, 17, 5-20.	0.5	11
66	Long-term pan evaporation observations as a resource to understand the water cycle trend: case studies from Australia. Hydrological Sciences Journal, 2013, 58, 1287-1296.	1.2	7
67	Which agricultural management interventions are most influential on soil organic carbon (using) Tj ETQq1 1 0.784314 rgBT /Overlock	1.1	4
68	Agricultural land use and N losses to water: the case study of a fluvial park in Northern Italy. Water Science and Technology, 2003, 47, 275-282.	1.2	2
69	Chapter 11. Using mitigation and adaptation strategies to optimize crop yield and greenhouse gas emissions. , 2014, , 203-236.		0
70	Continental-scale measurements of soil pyrogenic carbon in Europe. Soil Research, 2022, 60, 103-113.	0.6	0