Giacomo Al Gerosa

List of Publications by Year
in descending order

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88 papers	3,315 citations	136740 32 h-index	161609 54 g-index
101 all docs	101 docs citations	101 times ranked	3653 citing authors

#	Article	IF	Citations
1	Atmospheric composition change: Ecosystemsâ€“Atmosphere interactions. Atmospheric Environment, 2009, 43, 5193-5267.	1.9	609
2	Tropospheric Ozone Assessment Report: Present-day tropospheric ozone distribution and trends relevant to vegetation. Elementa, 2018, 6, .	1.1	212
3	Ozone stress in woody plants assessed with chlorophyll a fluorescence. A critical reassessment of existing data. Environmental and Experimental Botany, 2011, 73, 19-30.	2.0	117
4	New flux based doseâ€“response relationships for ozone for European forest tree species. Environmental Pollution, 2015, 206, 163-174.	3.7	106
5	Ecological impacts of atmospheric pollution and interactions with climate change in terrestrial ecosystems of the Mediterranean Basin: Current research and future directions. Environmental Pollution, 2017, 227, 194-206.	3.7	98
6	Vegetation feedbacks during drought exacerbate ozone air pollution extremes in Europe. Nature Climate Change, 2020, 10, 444-451.	8.1	96
7	Ozone uptake by an evergreen Mediterranean Forest () in Italy. Part I: Micrometeorological flux measurements and flux partitioning. Atmospheric Environment, 2005, 39, 3255-3266.	1.9	94
8	Dry Deposition of Ozone Over Land: Processes, Measurement, and Modeling. Reviews of Geophysics, 2020, 58, e2019RG000670.	9.0	86
9	Selection of chlorophyll fluorescence parameters as indicators of photosynthetic efficiency in large scale plant ecological studies. Ecological Indicators, 2020, 108, 105686.	2.6	77
10	Measuring, modelling and testing ozone exposure, flux and effects on vegetation in southern European conditionsâ€”What does not work? A review from Italy. Environmental Pollution, 2007, 146, 648-658.	3.7	67
11	Foliar response of an Ailanthus altissima clone in two sites with different levels of ozone-pollution. Environmental Pollution, 2003, 121, 137-146.	3.7	62
12	Leaf morphology and chemistry in Fagus sylvatica (beech) trees as affected by site factors and ozone: results from CONECOFOR permanent monitoring plots in Italy. Tree Physiology, 2005, 25, 211-219.	1.4	60
13	Ozone sensitivity of Fagus sylvatica and Fraxinus excelsior young trees in relation to leaf structure and foliar ozone uptake. Environmental Pollution, 2003, 125, 91-98.	3.7	59
14	Comparison of seasonal variations of ozone exposure and fluxes in a Mediterranean Holm oak forest between the exceptionally dry 2003 and the following year. Environmental Pollution, 2009, 157, 1737-1744.	3.7	58
15	Estimates of ozone AOT40 from passive sampling in forest sites in South-Western Europe. Environmental Pollution, 2007, 145, 629-635.	3.7	51
16	Micrometeorological determination of time-integrated stomatal ozone fluxes over wheat: a case study in Northern Italy. Atmospheric Environment, 2003, 37, 777-788.	1.9	50
17	Robustness of modelled ozone exposures and doses. Environmental Pollution, 2007, 146, 578-586.	3.7	50
18	Severe drought events increase the sensitivity to ozone on poplar clones. Environmental and Experimental Botany, 2014, 100, 94-104.	2.0	50

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19	Stomatal ozone fluxes over a barley field in Italy. â€œEffective exposureâ€•as a possible link between exposure- and flux-based approaches. Atmospheric Environment, 2004, 38, 2421-2432.	1.9	48
20	Chlorophyll a fluorescence analysis along a vertical gradient of the crown in a poplar (Oxford) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 702	1.4	47
21	Visible leaf injury in young trees of Fagus sylvatica L. and Quercus robur L. in relation to ozone uptake and ozone exposure. An Open-Top Chambers experiment in South Alpine environmental conditions. Environmental Pollution, 2008, 152, 274-284.	3.7	44
22	Ozone sensitivity of currant tomato (Lycopersicon pimpinellifolium), a potential bioindicator species. Environmental Pollution, 2006, 141, 275-282.	3.7	43
23	Photosynthesis responses to ozone in young trees of three species with different sensitivities, in a 2-year open-top chamber experiment (Curno, Italy). Physiologia Plantarum, 2007, 130, 122-135.	2.6	43
24	Sensitivity analysis of a parameterization of the stomatal component of the DO3SE model for Quercus ilex to estimate ozone fluxes. Environmental Pollution, 2008, 155, 473-480.	3.7	43
25	Validation of the stomatal flux approach for the assessment of ozone visible injury in young forest trees. Results from the TOP (transboundary ozone pollution) experiment at Curno, Italy. Environmental Pollution, 2009, 157, 1497-1505.	3.7	42
26	Modeling seasonal ozone fluxes to grassland and wheat: model improvement, testing, and application. Atmospheric Environment, 2004, 38, 2349-2359.	1.9	41
27	Nutritional Traits of Bean (Phaseolus vulgaris) Seeds from Plants Chronically Exposed to Ozone Pollution. Journal of Agricultural and Food Chemistry, 2009, 57, 201-208.	2.4	41
28	Ozone fluxes and foliar injury development in the ozone-sensitive poplar clone Oxford (Populus) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 3	1.4	38
29	A flux-based assessment of the effects of ozone on foliar injury, photosynthesis, and yield of bean (Phaseolus vulgaris L. cv. Borlotto Nano Lingua di Fuoco) in open-top chambers. Environmental Pollution, 2009, 157, 1727-1736.	3.7	36
30	Growth and physiological responses to ozone and mild drought stress of tree species with different ecological requirements. Trees - Structure and Function, 2010, 24, 695-704.	0.9	36
31	A flux-based assessment of above and below ground biomass of Holm oak (Quercus ilex L.) seedlings after one season of exposure to high ozone concentrations. Atmospheric Environment, 2015, 113, 41-49.	1.9	35
32	Short and long term photosynthetic adjustments in sun and shade leaves ofFagus sylvaticaL., investigated by fluorescence transient (FT) analysis. Plant Biosystems, 2012, 146, 206-216.	0.8	34
33	Ozone uptake by an evergreen mediterranean forest (L.) in Italyâ€”Part II: flux modelling. Upscaling leaf to canopy ozone uptake by a process-based model. Atmospheric Environment, 2005, 39, 3267-3278.	1.9	33
34	Comparison of Different Algorithms for Stomatal Ozone Flux Determination from Micrometeorological Measurements. Water, Air, and Soil Pollution, 2007, 179, 309-321.	1.1	33
35	Setting ozone critical levels for protecting horticultural Mediterranean crops: Case study of tomato. Environmental Pollution, 2014, 185, 178-187.	3.7	30
36	Field evaluation combined with modelling analysis to study fertilizer and tillage as factors affecting N2O emissions: A case study in the Po valley (Northern Italy). Agriculture, Ecosystems and Environment, 2016, 225, 72-85.	2.5	25

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37	Gas exchange and JIP-test parameters of two Mediterranean maquis species are affected by sea spray and ozone interaction. Environmental and Experimental Botany, 2011, 73, 80-88.	2.0	24
38	Characterization of total ecosystem-scale biogenic VOC exchange at a Mediterranean oakâ€“hornbeam forest. Atmospheric Chemistry and Physics, 2016, 16, 7171-7194.	1.9	24
39	The ozone-like syndrome in durum wheat (Triticum durum Desf.): Mechanisms underlying the different symptomatic responses of two sensitive cultivars. Plant Physiology and Biochemistry, 2017, 112, 261-269.	2.8	24
40	Varietal screening of ozone sensitivity in Mediterranean durum wheat (Triticum durum, Desf.). Atmospheric Environment, 2015, 110, 18-26.	1.9	23
41	Responses to ozone on Populus "Oxford" clone in an open top chamber experiment assessed before sunrise and in full sunlight. Photosynthetica, 2013, 51, 267-280.	0.9	22
42	Increased nitrogen wet deposition triggers negative effects of ozone on the biomass production of Carpinus betulus L. young trees. Environmental and Experimental Botany, 2018, 152, 128-136.	2.0	22
43	Conclusive remarks. Reliability and comparability of chlorophyll fluorescence data from several field teams. Environmental and Experimental Botany, 2011, 73, 116-119.	2.0	21
44	Integrated study through LCA, ELCC analysis and air quality modelling related to the adoption of high efficiency small scale pellet boilers. Biomass and Bioenergy, 2016, 90, 262-272.	2.9	20
45	Evaluating stomatal ozone fluxes in WRF-Chem: Comparing ozone uptake in Mediterranean ecosystems. Atmospheric Environment, 2016, 143, 237-248.	1.9	20
46	Biomass and physiological responses of Quercus robur (L.) young trees during 2Âyears of treatments with different levels of ozone and nitrogen wet deposition. Trees - Structure and Function, 2016, 30, 1995-2010.	0.9	20
47	Interactions among vegetation and ozone, water and nitrogen fluxes in a coastal Mediterranean maquis ecosystem. Biogeosciences, 2009, 6, 1783-1798.	1.3	19
48	Contrasting effects of water salinity and ozone concentration on two cultivars of durum wheat () Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50	3.7	19
49	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.	1.9	19
50	Sources of errors in assessing ozone visible symptoms on native vegetation. Environmental Pollution, 2006, 140, 257-268.	3.7	18
51	Long-term measurements of NOx and O3 soil fluxes in a temperate deciduous forest. Agricultural and Forest Meteorology, 2016, 228-229, 205-216.	1.9	17
52	Photosynthetic performance and biochemical adjustments in two co-occurring Mediterranean evergreens, Quercus ilex and Arbutus unedo, differing in salt-exclusion ability. Functional Plant Biology, 2014, 41, 391.	1.1	16
53	Scarce evidence of ozone effect on recent health and productivity of alpine forestsâ€"a case study in Trentino, N. Italy. Environmental Science and Pollution Research, 2018, 25, 8217-8232.	2.7	15
54	Assessing the Impact of Ozone on Forest Trees in An Integrative Perspective: Are Foliar Visible Symptoms Suitable Predictors for Growth Reduction? A Critical Review. Forests, 2019, 10, 1144.	0.9	14

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55	Tropospheric Ozone in Alpine Forest Sites: Air Quality Monitoring and Statistical Data Analysis. Water, Air, and Soil Pollution, 1999, 116, 345-350.	1.1	13
56	Intra-annual Pattern of Photosynthesis, Growth and Stable Isotope Partitioning in a Poplar Clone Subjected to Ozone and Water Stress. Water, Air, and Soil Pollution, 2013, 224, 1.	1.1	13
57	Evaluation of the uncertainty in the ozone flux effect modelling: From the experiments to the doseâ€“response relationships. Atmospheric Environment, 2012, 54, 44-52.	1.9	12
58	Early physiological responses of Pinus pinea L. seedlings infected by Heterobasidion sp.pl. in an ozone-enriched atmospheric environment. Tree Physiology, 2015, 35, 331-340.	1.4	12
59	A dose-response relationship for marketable yield reduction of two lettuce (Lactuca sativa L.) cultivars exposed to tropospheric ozone in Southern Europe. Environmental Science and Pollution Research, 2017, 24, 26249-26258.	2.7	12
60	Vertical Ozone Gradients above Forests. Comparison of Different Calculation Options with Direct Ozone Measurements above a Mature Forest and Consequences for Ozone Risk Assessment. Forests, 2017, 8, 337.	0.9	12
61	Selection of tree species for forests under climate change: is PSI functioning a better predictor for net photosynthesis and growth than PSII?. Tree Physiology, 2020, 40, 1561-1571.	1.4	12
62	Method comparison of indirect assessments of understory leaf area index (LAIu): A case study across the extended network of ICOS forest ecosystem sites in Europe. Ecological Indicators, 2021, 128, 107841.	2.6	12
63	Retrieval and validation of forest background reflectivity from daily Moderate Resolution Imaging Spectroradiometer (MODIS) bidirectional reflectance distribution function (BRDF) data across European forests. Biogeosciences, 2021, 18, 621-635.	1.3	12
64	Early Events inPopulusHybrid andFagus sylvaticaLeaves Exposed to Ozone. Scientific World Journal, The, 2010, 10, 512-527.	0.8	11
65	A simple linear model for estimating ozone AOT40 at forest sites from raw passive sampling data. Journal of Environmental Monitoring, 2012, 14, 2238.	2.1	11
66	Evaluation of simulated ozone effects in forest ecosystems against biomass damage estimates from fumigation experiments. Biogeosciences, 2018, 15, 6941-6957.	1.3	11
67	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.	2.5	11
68	Site- and house-specific and meteorological factors influencing exchange of particles between outdoor and indoor domestic environments. Building and Environment, 2019, 160, 106181.	3.0	10
69	Ozone Risk Assessment and Mapping in the Alps Based on Data from Passive Samplers. Scientific World Journal, The, 2002, 2, 1023-1035.	0.8	9
70	Crown condition surveys in Italian forests: issues in reporting findings. Environmental Monitoring and Assessment, 2003, 85, 221-238.	1.3	9
71	Ozone Effects on Fruit Productivity and Photosynthetic Response of Two Tomato Cultivars in Relation to Stomatal Fluxes. Italian Journal of Agronomy, 2008, 3, 61.	0.4	9
72	A Site-Specific Analysis of the Implications of a Changing Ozone Profile and Climate for Stomatal Ozone Fluxes in Europe. Water, Air, and Soil Pollution, 2019, 230, 1.	1.1	9

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73	Errors in ozone risk assessment using standard conditions for converting ozone concentrations obtained by passive samplers in mountain regions. Journal of Environmental Monitoring, 2012, 14, 1703.	2.1	8
74	Techniques of Ozone Monitoring in a Mountain Forest Region: Passive and Continuous Sampling, Vertical and Canopy Profiles. Scientific World Journal, The, 2001, 1, 612-626.	0.8	7
75	Ozone risk assessment for an Alpine larch forest in two vegetative seasons with different approaches: comparison of POD1 and AOT40. Environmental Science and Pollution Research, 2017, 24, 26238-26248.	2.7	7
76	Dose-response relationships for ozone effect on the growth of deciduous broadleaf oaks in mediterranean environment. Atmospheric Environment, 2018, 190, 331-341.	1.9	6
77	Neural Network Analysis to Evaluate Ozone Damage to Vegetation Under Different Climatic Conditions. Frontiers in Forests and Global Change, 2020, 3, .	1.0	6
78	Size-resolved aerosol fluxes above a broadleaved deciduous forest. Agricultural and Forest Meteorology, 2019, 279, 107757.	1.9	5
79	Size-segregated aerosol fluxes, deposition velocities, and chemical composition in an Alpine valley. Atmospheric Research, 2022, 268, 105995.	1.8	4
80	Case Study: Valle Camonica and the Adamello Park. , 2013, , .		3
81	Some remarks on â€œNew functions for estimating AOT40 from ozone passive samplingâ€•by De Marco etÂal. (2014). Atmospheric Environment, 2014, 98, 707-710.	1.9	3
82	(E)merging directions on air pollution and climate change research in Mediterranean Basin ecosystems. Environmental Science and Pollution Research, 2017, 24, 26155-26159.	2.7	3
83	Introducing the Bulletin of Atmospheric Science and Technology. Bulletin of Atmospheric Science and Technology, 2020, 1, 1-11.	0.4	2
84	Assessment of Integrated Aerosol Sampling Techniques in Indoor, Confined and Outdoor Environments Characterized by Specific Emission Sources. Applied Sciences (Switzerland), 2021, 11, 4360.	1.3	2
85	Ozone Fluxes to a Larch Forest Ecosystem at the Timberline in the Italian Alps. , 0, , .		2
86	Challenges in Understanding the Risks to Natural and Semi-Natural Vegetation from Ozone Exposure. Italian Journal of Agronomy, 2008, 3, 53.	0.4	1
87	Ozone Flux Measurement and Modelling on Leaf/Shoot and Canopy Scale. Italian Journal of Agronomy, 2008, 3, 21.	0.4	1
88	Assessing Present and Future Ozone Hazards to Natural Forests in the Alpine Area â€" Comparison of a Wide Scale Mapping Technique with Local Passive Sampler Measurements. , 2013, , .		1