Thomas Gasser

List of Publications by Year
in descending order

46	6,594	27	47
papers	citations	h-index	g-index
		201674	214800

84	84	84	8582
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Global Carbon Budget 2020. Earth System Science Data, 2020, 12, 3269-3340.	9.9	1,477
2	Biophysical and economic limits to negative CO2 emissions. Nature Climate Change, 2016, 6, 42-50.	18.8	973
3	Global Carbon Budget 2017. Earth System Science Data, 2018, 10, 405-448.	9.9	801
4	Global Carbon Budget 2021. Earth System Science Data, 2022, 14, 1917-2005.	9.9	663
5	Historical carbon dioxide emissions caused by land-use changes are possibly larger than assumed. Nature Geoscience, 2017, 10, 79-84.	12.9	284
6	Negative emissions physically needed to keep global warming below 2â€‰Â°C. Nature Communications, 2015, 6, 7958.	12.8	265
7	The contribution of Chinaâ€™s emissions to global climate forcing. Nature, 2016, 531, 357-361.	27.8	214
8	How to spend a dwindling greenhouse gas budget. Nature Climate Change, 2018, 8, 7-10.	18.8	119
9	Historical CO₂ emissions from land use and land cover change and their uncertainty. Biogeosciences, 2020, 17, 4075-4101.	3.3	112
10	Enhancing life cycle impact assessment from climate science: Review of recent findings and recommendations for application to LCA. Ecological Indicators, 2016, 71, 163-174.	6.3	108
11	Climate warming from managed grasslands cancels the cooling effect of carbon sinks in sparsely grazed and natural grasslands. Nature Communications, 2021, 12, 118.	12.8	106
12	Historical and future perspectives of global soil carbon response to climate and land-use changes. Tellus, Series B: Chemical and Physical Meteorology, 2022, 62, 700.	1.6	103
13	Simulating the Earth system response to negative emissions. Environmental Research Letters, 2016, 11, 095012.	5.2	98
14	Path-dependent reductions in CO2 emission budgets caused by permafrost carbon release. Nature Geoscience, 2018, 11, 830-835.	12.9	86
15	A theoretical framework for the net land-to-atmosphere CO₂ flux and its implications in the definition of "emissions from land-use change". Earth System Dynamics, 2013, 4, 171-186.	7.1	74
16	Accounting for the climateâ€“carbon feedback in emission metrics. Earth System Dynamics, 2017, 8, 235-253.	7.1	71
17	Empirical estimates of regional carbon budgets imply reduced global soil heterotrophic respiration. National Science Review, 2021, 8, nwaa145.	9.5	70
18	Reduced Complexity Model Intercomparison Project Phase 1: introduction and evaluation of global-mean temperature response. Geoscientific Model Development, 2020, 13, 5175-5190.	3.6	70

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19	Bridging the gap between impact assessment methods and climate science. Environmental Science and Policy, 2016, 64, 129-140.	4.9	69
20	The contribution of carbon dioxide emissions from the aviation sector to future climate change. Environmental Research Letters, 2019, 14, 084019.	5.2	66
21	Attributing the increase in atmospheric CO2 to emitters and absorbers. Nature Climate Change, 2013, 3, 926-930.	18.8	63
22	The declining uptake rate of atmospheric CO₂ by land and ocean sinks. Biogeosciences, 2014, 11, 3453-3475.	3.3	62
23	Field-experiment constraints on the enhancement of the terrestrial carbon sink by CO2 fertilization. Nature Geoscience, 2019, 12, 809-814.	12.9	58
24	The compact Earth system model OSCARÂv2.2: description and first results. Geoscientific Model Development, 2017, 10, 271-319.	3.6	49
25	The weakening relationship between Eurasian spring snow cover and Indian summer monsoon rainfall. Science Advances, 2019, 5, eaau8932.	10.3	39
26	Indicate separate contributions of long-lived and short-lived greenhouse gases in emission targets. Npj Climate and Atmospheric Science, 2022, 5, 5.	6.8	36
27	Linearity between temperature peak and bioenergy CO2 emission rates. Nature Climate Change, 2014, 4, 983-987.	18.8	33
28	Short-lived climate forcers have long-term climate impacts via the carbonâ€“climate feedback. Nature Climate Change, 2020, 10, 851-855.	18.8	31
29	Reduced Complexity Model Intercomparison Project Phase 2: Synthesizing Earth System Knowledge for Probabilistic Climate Projections. Earth's Future, 2021, 9, e2020EF001900.	6.3	28
30	Increased Global Land Carbon Sink Due to Aerosolâ€Induced Cooling. Global Biogeochemical Cycles, 2019, 33, 439-457.	4.9	27
31	Re-evaluating the 1940s CO₂ plateau. Biogeosciences, 2016, 13, 4877-4897.	3.3	22
32	Uncertainty in projected climate change arising from uncertain fossil-fuel emission factors. Environmental Research Letters, 2018, 13, 044017.	5.2	19
33	Global cooling induced by biophysical effects of bioenergy crop cultivation. Nature Communications, 2021, 12, 7255.	12.8	19
34	Carbon Cycle Response to Temperature Overshoot Beyond 2Â°C: An Analysis of CMIP6 Models. Earth's Future, 2021, 9, e2020EF001967.	6.3	17
35	The contributions of individual countries and regions to the global radiative forcing. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	7.1	15
36	Amplified warming from physiological responses to carbon dioxide reduces the potential of vegetation for climate change mitigation. Communications Earth & Environment, 2022, 3, .	6.8	13

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37	Potential feedbacks between loss of biosphere integrity and climate change. Global Sustainability, 2019, 2, .	3.3	11
38	How the Glasgow Declaration on Forests can help keep alive the 1.5â€‰Â°C target. Proceedings of the National Academy of Sciences of the United States of America, 2022, 119, .	7.1	11
39	Missed atmospheric organic phosphorus emitted by terrestrial plants, part 2: Experiment of volatile phosphorus. Environmental Pollution, 2020, 258, 113728.	7.5	10
40	Analytically tractable climateâ€"carbon cycle feedbacks under 21st century anthropogenic forcing. Earth System Dynamics, 2018, 9, 507-523.	7.1	9
41	Impact of bioenergy crop expansion on climateâ€"carbon cycle feedbacks in overshoot scenarios. Earth System Dynamics, 2022, 13, 779-794.	7.1	8
42	Decadal variability in land carbon sink efficiency. Carbon Balance and Management, 2021, 16, 15.	3.2	6
43	On the contribution of global aviation to the CO2 radiative forcing of climate. Atmospheric Environment, 2021, 267, 118762.	4.1	6
44	Climate Warming Mitigation from Nationally Determined Contributions. Advances in Atmospheric Sciences, 2022, 39, 1217-1228.	4.3	6
45	Gross changes in forest area shape the future carbon balance of tropical forests. Biogeosciences, 2018, 15, 91-103.	3.3	3
46	Analysis of slight precipitation in China during the past decades and its relationship with advanced very high radiometric resolution normalized difference vegetation index. International Journal of Climatology, 2018, 38, 5563-5575.	3.5	2