Florian HumpenÃ¶der

List of Publications by Year
in descending order

56 papers	10,031 citations	81900 39 h-index	144013 57 g-index
62 all docs	62 docs citations	62 times ranked	10405 citing authors

#	Article	IF	Citations
1	The Shared Socioeconomic Pathways and their energy, land use, and greenhouse gas emissions implications: An overview. Global Environmental Change, 2017, 42, 153-168.	7.8	2,966
2	Scenarios towards limiting global mean temperature increase below 1.5 Â°C. Nature Climate Change, 2018, 8, 325-332.	18.8	795
3	Land-use futures in the shared socio-economic pathways. Global Environmental Change, 2017, 42, 331-345.	7.8	645
4	Fossil-fueled development (SSP5): An energy and resource intensive scenario for the 21st century. Global Environmental Change, 2017, 42, 297-315.	7.8	418
5	Bending the curve of terrestrial biodiversity needs an integrated strategy. Nature, 2020, 585, 551-556.	27.8	413
6	Harmonization of global land use change and management for the period 850â€"2100 (LUH2) for CMIP6. Geoscientific Model Development, 2020, 13, 5425-5464.	3.6	408
7	Reactive nitrogen requirements to feed the world in 2050 and potential to mitigate nitrogen pollution. Nature Communications, 2014, 5, 3858.	12.8	356
8	Understanding future emissions from low-carbon power systems by integration of life-cycle assessment and integrated energy modelling. Nature Energy, 2017, 2, 939-945.	39.5	321
9	Taking stock of national climate policies to evaluate implementation of the Paris Agreement. Nature Communications, 2020, 11, 2096.	12.8	241
10	Impact of declining renewable energy costs on electrification in low-emission scenarios. Nature Energy, 2022, 7, 32-42.	39.5	196
11	Environmental co-benefits and adverse side-effects of alternative power sector decarbonization strategies. Nature Communications, 2019, 10, 5229.	12.8	188
12	A sustainable development pathway for climate action within the UN 2030 Agenda. Nature Climate Change, 2021, 11, 656-664.	18.8	179
13	Hotspots of uncertainty in landâ€use and landâ€cover change projections: a globalâ€scale model comparison. Global Change Biology, 2016, 22, 3967-3983.	9.5	171
14	Land-use protection for climate change mitigation. Nature Climate Change, 2014, 4, 1095-1098.	18.8	164
15	A multi-model assessment of food security implications of climate change mitigation. Nature Sustainability, 2019, 2, 386-396.	23.7	152
16	Land-use transition for bioenergy and climate stabilization: model comparison of drivers, impacts and interactions with other land use based mitigation options. Climatic Change, 2014, 123, 495-509.	3.6	140
17	Investigating afforestation and bioenergy CCS as climate change mitigation strategies. Environmental Research Letters, 2014, 9, 064029.	5.2	129
18	Decoupling Livestock from Land Use through Industrial Feed Production Pathways. Environmental Science & Technology, 2018, 52, 7351-7359.	10.0	124

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19	Key determinants of global land-use projections. Nature Communications, 2019, 10, 2166.	12.8	123
20	The impact of high-end climate change on agricultural welfare. Science Advances, 2016, 2, e1501452.	10.3	118
21	Landâ€based measures to mitigate climate change: Potential and feasibility by country. Global Change Biology, 2021, 27, 6025-6058.	9.5	114
22	Tradeâ€offs between land and water requirements for largeâ€scale bioenergy production. GCB Bioenergy, 2016, 8, 11-24.	5.6	108
23	Assessing uncertainties in land cover projections. Global Change Biology, 2017, 23, 767-781.	9.5	103
24	Cost and attainability of meeting stringent climate targets without overshoot. Nature Climate Change, 2021, 11, 1063-1069.	18.8	102
25	Large-scale bioenergy production: how to resolve sustainability trade-offs?. Environmental Research Letters, 2018, 13, 024011.	5.2	96
26	Comparing impacts of climate change and mitigation on global agriculture by 2050. Environmental Research Letters, 2018, 13, 064021.	5.2	93
27	The value of bioenergy in low stabilization scenarios: an assessment using REMIND-MAgPIE. Climatic Change, 2014, 123, 705-718.	3.6	81
28	Afforestation to mitigate climate change: impacts on food prices under consideration of albedo effects. Environmental Research Letters, 2016, 11, 085001.	5.2	74
29	Peatland protection and restoration are key for climate change mitigation. Environmental Research Letters, 2020, 15, 104093.	5.2	74
30	Projected environmental benefits of replacing beef with microbial protein. Nature, 2022, 605, 90-96.	27.8	72
31	Critical adjustment of land mitigation pathways for assessing countriesâ€™ climate progress. Nature Climate Change, 2021, 11, 425-434.	18.8	61
32	Mitigation Strategies for Greenhouse Gas Emissions from Agriculture and Land-Use Change: Consequences for Food Prices. Environmental Science & Technology, 2017, 51, 365-374.	10.0	57
33	Large uncertainty in carbon uptake potential of landâ€based climateâ€change mitigation efforts. Global Change Biology, 2018, 24, 3025-3038.	9.5	56
34	MAgPIE 4 â€“ aÂ modular open-source framework for modeling global land systems. Geoscientific Model Development, 2019, 12, 1299-1317.	3.6	56
35	Targeted policies can compensate most of the increased sustainability risks in 1.5â€‰Â°C mitigation scenarios. Environmental Research Letters, 2018, 13, 064038.	5.2	48
36	Environmental flow provision: Implications for agricultural water and land-use at the global scale. Global Environmental Change, 2015, 30, 113-132.	7.8	47

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37	Climate extremes, landâ€“climate feedbacks and land-use forcing at 1.5Â°C. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2018, 376, 20160450.	3.4	46
38	Carbon dioxide removal technologies are not born equal. Environmental Research Letters, 2021, 16, 074021.	5.2	45
39	Livestock and human use of land: Productivity trends and dietary choices as drivers of future land and carbon dynamics. Global and Planetary Change, 2017, 159, 1-10.	3.5	44
40	Effects of land-use change on the carbon balance of 1st generation biofuels: An analysis for the European Union combining spatial modeling and LCA. Biomass and Bioenergy, 2013, 56, 166-178.	5.7	43
41	Land-Use and Carbon Cycle Responses to Moderate Climate Change: Implications for Land-Based Mitigation?. Environmental Science & Technology, 2015, 49, 6731-6739.	10.0	36
42	Livestock production and the water challenge of future food supply: Implications of agricultural management and dietary choices. Global Environmental Change, 2017, 47, 121-132.	7.8	34
43	Global consequences of afforestation and bioenergy cultivation on ecosystem service indicators. Biogeosciences, 2017, 14, 4829-4850.	3.3	33
44	Land-based implications of early climate actions without global net-negative emissions. Nature Sustainability, 2021, 4, 1052-1059.	23.7	27
45	The global economic long-term potential of modern biomass in a climate-constrained world. Environmental Research Letters, 2014, 9, 074017.	5.2	26
46	Mapping the yields of lignocellulosic bioenergy crops from observations at the global scale. Earth System Science Data, 2020, 12, 789-804.	9.9	26
47	Bio-energy and CO2 emission reductions: an integrated land-use and energy sector perspective. Climatic Change, 2020, 163, 1675-1693.	3.6	23
48	Pasture intensification is insufficient to relieve pressure on conservation priority areas in open agricultural markets. Global Change Biology, 2018, 24, 3199-3213.	9.5	22
49	The value of climate-resilient seeds for smallholder adaptation in sub-Saharan Africa. Climatic Change, 2020, 162, 1213-1229.	3.6	22
50	Taking account of governance: Implications for land-use dynamics, food prices, and trade patterns. Ecological Economics, 2016, 122, 12-24.	5.7	21
51	Impact of LULCC on the emission of BVOCs during the 21st century. Atmospheric Environment, 2017, 165, 73-87.	4.1	11
52	Are scenario projections overly optimistic about future yield progress?. Global Environmental Change, 2020, 64, 102120.	7.8	11
53	Quantifying synergies and trade-offs in the global water-land-food-climate nexus using a multi-model scenario approach. Environmental Research Letters, 2022, 17, 045004.	5.2	11
54	Global biomass supply modeling for long-run management of the climate system. Climatic Change, 2022, 172, .	3.6	8

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55	Accounting for local temperature effect substantially alters afforestation patterns. Environmental Research Letters, 2022, 17, 024030.	5.2	3
56	Estimating global land system impacts of timber plantations using MAgPIE 4.3.5. Geoscientific Model Development, 2021, 14, 6467-6494.	3.6	2