Sebastian D Sippel

List of Publications by Year
in descending order

45 papers	2,273 citations	218381 26 h-index	276539 41 g-index
51 all docs	51 docs citations	51 times ranked	3476 citing authors

#	Article	IF	Citations
1	Past warming trend constrains future warming in CMIP6 models. Science Advances, 2020, 6, eaaz9549.	4.7	327
2	Increasing probability of record-shattering climate extremes. Nature Climate Change, 2021, 11, 689-695.	8.1	224
3	Climate change now detectable from any single day of weather at global scale. Nature Climate Change, 2020, 10, 35-41.	8.1	154
4	Impacts of droughts and extreme-temperature events on gross primary production and ecosystem respiration: a systematic assessment across ecosystems and climate zones. Biogeosciences, 2018, 15, 1293-1318.	1.3	137
5	Drought, Heat, and the Carbon Cycle: a Review. Current Climate Change Reports, 2018, 4, 266-286.	2.8	132
6	Climatic and soil factors explain the two-dimensional spectrum of global plant trait variation. Nature Ecology and Evolution, 2022, 6, 36-50.	3.4	89
7	Half a degree and rapid socioeconomic development matter for heatwave risk. Nature Communications, 2019, 10, 136.	5.8	85
8	A novel bias correction methodology for climate impact simulations. Earth System Dynamics, 2016, 7, 71-88.	2.7	75
9	Ecosystem impacts of climate extremes crucially depend on the timing. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, 5768-5770.	3.3	73
10	Quantifying changes in climate variability and extremes: Pitfalls and their overcoming. Geophysical Research Letters, 2015, 42, 9990-9998.	1.5	64
11	Beyond climatological extremes - assessing how the odds of hydrometeorological extreme events in South-East Europe change in a warming climate. Climatic Change, 2014, 125, 381-398.	1.7	57
12	Contrasting biosphere responses to hydrometeorological extremes: revisiting the 2010 western Russian heatwave. Biogeosciences, 2018, 15, 6067-6085.	1.3	57
13	Asymmetric responses of primary productivity to altered precipitation simulated by ecosystem models across three long-term grassland sites. Biogeosciences, 2018, 15, 3421-3437.	1.3	55
14	Refining multi-model projections of temperature extremes by evaluation against landâ€"atmosphere coupling diagnostics. Earth System Dynamics, 2017, 8, 387-403.	2.7	53
15	An integrated approach to quantifying uncertainties in the remaining carbon budget. Communications Earth & Environment, 2021, 2, .	2.6	52
16	Do water-saving ground cover rice production systems increase grain yields at regional scales?. Field Crops Research, 2013, 150, 19-28.	2.3	50
17	Uncovering the Forced Climate Response from a Single Ensemble Member Using Statistical Learning. Journal of Climate, 2019, 32, 5677-5699.	1.2	45
18	Stakeholder Perspectives on the Attribution of Extreme Weather Events: An Explorative Enquiry. Weather, Climate, and Society, 2015, 7, 224-237.	0.5	35

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19	Combining large model ensembles with extreme value statistics to improve attribution statements of rare events. Weather and Climate Extremes, 2015, 9, 25-35.	1.6	35
20	Detecting impacts of extreme events with ecological inÂsitu monitoring networks. Biogeosciences, 2017, 14, 4255-4277.	1.3	35
21	Largeâ€Scale Droughts Responsible for Dramatic Reductions of Terrestrial Net Carbon Uptake Over North America in 2011 and 2012. Journal of Geophysical Research G: Biogeosciences, 2018, 123, 2053-2071.	1.3	35
22	Nitrogen dynamics at undisturbed and burned Mediterranean shrublands of Salento Peninsula, Southern Italy. Plant and Soil, 2011, 343, 5-15.	1.8	34
23	The Role of Anthropogenic Warming in 2015 Central European Heat Waves. Bulletin of the American Meteorological Society, 2016, 97, S51-S56.	1.7	34
24	Extreme heat-related mortality avoided under Paris Agreement goals. Nature Climate Change, 2018, 8, 551-553.	8.1	33
25	Vegetation modulates the impact of climate extremes on gross primary production. Biogeosciences, 2021, 18, 39-53.	1.3	33
26	Contrasting and interacting changes in simulated spring and summer carbon cycle extremes in European ecosystems. Environmental Research Letters, 2017, 12, 075006.	2.2	32
27	Multivariate anomaly detection for Earth observations: a comparison of algorithms and feature extraction techniques. Earth System Dynamics, 2017, 8, 677-696.	2.7	27
28	Ground cover rice production systems increase soil carbon and nitrogen stocks at regional scale. Biogeosciences, 2015, 12, 4831-4840.	1.3	22
29	Have precipitation extremes and annual totals been increasing in the world's dry regions over the last 60Âyears?. Hydrology and Earth System Sciences, 2017, 21, 441-458.	1.9	22
30	Diagnosing the Dynamics of Observed and Simulated Ecosystem Gross Primary Productivity with Time Causal Information Theory Quantifiers. PLoS ONE, 2016, 11, e0164960.	1.1	20
31	Local and Nonlocal Land Surface Influence in European Heatwave Initial Condition Ensembles. Geophysical Research Letters, 2019, 46, 14082-14092.	1.5	17
32	Bias correction of climate model output for impact models. , 2020, , 77-104.		17
33	Late 1980s abrupt cold season temperature change in Europe consistent with circulation variability and long-term warming. Environmental Research Letters, 2020, 15, 094056.	2.2	15
34	From Hazard to Risk. Bulletin of the American Meteorological Society, 2018, 99, 1689-1693.	1.7	14
35	Synoptic-scale controls of fog and low-cloud variability in the Namib Desert. Atmospheric Chemistry and Physics, 2020, 20, 3415-3438.	1.9	14
36	Nonlinear dynamics of river runoff elucidated by horizontal visibility graphs. Chaos, 2018, 28, 075520.	1.0	11

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37	Robust detection of forced warming in the presence of potentially large climate variability. Science Advances, 2021, 7, eabh4429.	4.7	11
38	Reverse engineering model structures for soil and ecosystem respiration: the potential of gene expression programming. Geoscientific Model Development, 2017, 10, 3519-3545.	1.3	7
39	Warm Winter, Wet Spring, and an Extreme Response in Ecosystem Functioning on the Iberian Peninsula. Bulletin of the American Meteorological Society, 2018, 99, S80-S85.	1.7	7
40	Climate extremes and their implications for impact and risk assessment: A short introduction. , 2020, , 1-9.		7
41	Concurrent and lagged effects of spring greening on seasonal carbon gain and water loss across the Northern Hemisphere. International Journal of Biometeorology, 2020, 64, 1343-1354.	1.3	6
42	Physics-aware nonparametric regression models for Earth data analysis. Environmental Research Letters, 2022, 17, 054034.	2.2	6
43	Latent Linear Adjustment Autoencoder v1.0: a novel method for estimating and emulating dynamic precipitation at high resolution. Geoscientific Model Development, 2021, 14, 4977-4999.	1.3	4
44	Outlook: Challenges for societal resilience under climate extremes. , 2020, , 341-353.		2
45	Towards dynamical adjustment of the full temperature distribution. , 2020, , .		1