

Stefan Siebert

List of Publications by Year in descending order

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Version: 2024-02-01

91
papers

18,982
citations

41344

49
h-index

46799

89
g-index

108
all docs

108
docs citations

108
times ranked

21274
citing authors

#	ARTICLE	IF	CITATIONS
1	Uncertainty in climate change impact studies for irrigated maize cropping systems in southern Spain. <i>Scientific Reports</i> , 2022, 12, 4049.	3.3	9
2	The use of remote sensing to derive maize sowing dates for large-scale crop yield simulations. <i>International Journal of Biometeorology</i> , 2021, 65, 565-576.	3.0	7
3	WATER USE IN HUMAN CIVILIZATIONS: AN INTERDISCIPLINARY ANALYSIS OF A PERPETUAL SOCIAL-ECOLOGICAL CHALLENGE. <i>Frontiers of Agricultural Science and Engineering</i> , 2021, 8, 512.	1.4	2
4	Implications of data aggregation method on crop model outputs – The case of irrigated potato systems in Tasmania, Australia. <i>European Journal of Agronomy</i> , 2021, 126, 126276.	4.1	11
5	Crop harvested area, not yield, drives variability in crop production in Iran. <i>Environmental Research Letters</i> , 2021, 16, 064058.	5.2	19
6	Crop response to P fertilizer omission under a changing climate - Experimental and modeling results over 115 years of a long-term fertilizer experiment. <i>Field Crops Research</i> , 2021, 268, 108174.	5.1	8
7	Impact of crop management and environment on the spatio-temporal variance of potato yield at regional scale. <i>Field Crops Research</i> , 2021, 270, 108213.	5.1	21
8	Drought risk for agricultural systems in South Africa: Drivers, spatial patterns, and implications for drought risk management. <i>Science of the Total Environment</i> , 2021, 799, 149505.	8.0	49
9	Nutrient supply affects the yield stability of major European crops – a 50 year study. <i>Environmental Research Letters</i> , 2021, 16, 014003.	5.2	15
10	Estimating Actual Evapotranspiration over Croplands Using Vegetation Index Methods and Dynamic Harvested Area. <i>Remote Sensing</i> , 2021, 13, 5167.	4.0	14
11	Effects of soil- and climate data aggregation on simulated potato yield and irrigation water requirement. <i>Science of the Total Environment</i> , 2020, 710, 135589.	8.0	23
12	Multiple cropping systems of the world and the potential for increasing cropping intensity. <i>Global Environmental Change</i> , 2020, 64, 102131.	7.8	112
13	Analysis of Drought Impact on Croplands from Global to Regional Scale: A Remote Sensing Approach. <i>Remote Sensing</i> , 2020, 12, 4030.	4.0	12
14	Global priorities of environmental issues to combat food insecurity and biodiversity loss. <i>Science of the Total Environment</i> , 2020, 730, 139096.	8.0	39
15	Global-scale drought risk assessment for agricultural systems. <i>Natural Hazards and Earth System Sciences</i> , 2020, 20, 695-712.	3.6	136
16	A Spatially Transferable Drought Hazard and Drought Risk Modeling Approach Based on Remote Sensing Data. <i>Remote Sensing</i> , 2020, 12, 237.	4.0	9
17	Agricultural risks from changing snowmelt. <i>Nature Climate Change</i> , 2020, 10, 459-465.	18.8	187
18	Early vigour in wheat: Could it lead to more severe terminal drought stress under elevated atmospheric [CO ₂] and semi-arid conditions?. <i>Global Change Biology</i> , 2020, 26, 4079-4093.	9.5	13

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19	Local food crop production can fulfil demand for less than one-third of the population. <i>Nature Food</i> , 2020, 1, 229-237.	14.0	102
20	Crop Yield Estimation Using Multi-Source Satellite Image Series and Deep Learning. , 2020, , .		11
21	Optimizing harmonics from Landsat time series data: the case of mapping rainfed and irrigated agriculture in Zimbabwe. <i>Remote Sensing Letters</i> , 2019, 10, 1038-1046.	1.4	16
22	Voluntary sustainability standards could significantly reduce detrimental impacts of global agriculture. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2019, 116, 2130-2137.	7.1	31
23	Flexibility and intensity of global water use. <i>Nature Sustainability</i> , 2019, 2, 515-523.	23.7	106
24	Drought vulnerability and risk assessments: state of the art, persistent gaps, and research agenda. <i>Environmental Research Letters</i> , 2019, 14, 083002.	5.2	133
25	Impact of nutrient supply on the expression of genetic improvements of cereals and row crops – A case study using data from a long-term fertilization experiment in Germany. <i>European Journal of Agronomy</i> , 2018, 96, 34-46.	4.1	12
26	Quantifying the response of wheat yields to heat stress: The role of the experimental setup. <i>Field Crops Research</i> , 2018, 217, 93-103.	5.1	44
27	Two-thirds of global cropland area impacted by climate oscillations. <i>Nature Communications</i> , 2018, 9, 1257.	12.8	66
28	Climate change effect on wheat phenology depends on cultivar change. <i>Scientific Reports</i> , 2018, 8, 4891.	3.3	88
29	Diverging importance of drought stress for maize and winter wheat in Europe. <i>Nature Communications</i> , 2018, 9, 4249.	12.8	230
30	Genetic yield gains of winter wheat in Germany over more than 100 years (1895–2007) under contrasting fertilizer applications. <i>Environmental Research Letters</i> , 2018, 13, 104003.	5.2	24
31	Human Water Use Impacts on the Strength of the Continental Sink for Atmospheric Water. <i>Geophysical Research Letters</i> , 2018, 45, 4068-4076.	4.0	36
32	The use of food imports to overcome local limits to growth. <i>Earth's Future</i> , 2017, 5, 393-407.	6.3	70
33	The food–energy–water nexus: Transforming science for society. <i>Water Resources Research</i> , 2017, 53, 3550-3556.	4.2	180
34	Heat stress is overestimated in climate impact studies for irrigated agriculture. <i>Environmental Research Letters</i> , 2017, 12, 054023.	5.2	88
35	Global Relationships between Cropland Intensification and Summer Temperature Extremes over the Last 50 Years. <i>Journal of Climate</i> , 2017, 30, 7505-7528.	3.2	43
36	Independent and combined effects of high temperature and drought stress around anthesis on wheat. <i>Journal of Agronomy and Crop Science</i> , 2017, 203, 453-463.	3.5	84

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37	The implication of input data aggregation on up-scaling soil organic carbon changes. <i>Environmental Modelling and Software</i> , 2017, 96, 361-377.	4.5	28
38	Climate and management interaction cause diverse crop phenology trends. <i>Agricultural and Forest Meteorology</i> , 2017, 233, 55-70.	4.8	59
39	Weather impacts on crop yields - searching for simple answers to a complex problem. <i>Environmental Research Letters</i> , 2017, 12, 081001.	5.2	43
40	Bringing it all together: linking measures to secure nations' food supply. <i>Current Opinion in Environmental Sustainability</i> , 2017, 29, 98-117.	6.3	47
41	Impact of Spatial Soil and Climate Input Data Aggregation on Regional Yield Simulations. <i>PLoS ONE</i> , 2016, 11, e0151782.	2.5	78
42	Diet change and food loss reduction: What is their combined impact on global water use and scarcity?. <i>Earth's Future</i> , 2016, 4, 62-78.	6.3	69
43	The world's road to water scarcity: shortage and stress in the 20th century and pathways towards sustainability. <i>Scientific Reports</i> , 2016, 6, 38495.	3.3	542
44	Improved estimation of nitrogen uptake in grasslands using the nitrogen dilution curve – reply to the letter to the editor by Lemaire and Gastal, 2016. <i>Agronomy for Sustainable Development</i> , 2016, 36, 1.	5.3	0
45	Causes and trends of water scarcity in food production. <i>Environmental Research Letters</i> , 2016, 11, 015001.	5.2	93
46	Evaluating the precision of eight spatial sampling schemes in estimating regional means of simulated yield for two crops. <i>Environmental Modelling and Software</i> , 2016, 80, 100-112.	4.5	26
47	Simulating canopy temperature for modelling heat stress in cereals. <i>Environmental Modelling and Software</i> , 2016, 77, 143-155.	4.5	68
48	The implication of irrigation in climate change impact assessment: a European-wide study. <i>Global Change Biology</i> , 2015, 21, 4031-4048.	9.5	66
49	Simulation of the phenological development of wheat and maize at the global scale. <i>Global Ecology and Biogeography</i> , 2015, 24, 1018-1029.	5.8	54
50	A global data set of the extent of irrigated land from 1900 to 2005. <i>Hydrology and Earth System Sciences</i> , 2015, 19, 1521-1545.	4.9	301
51	Impact of data resolution on heat and drought stress simulated for winter wheat in Germany. <i>European Journal of Agronomy</i> , 2015, 65, 69-82.	4.1	44
52	The limits of increasing food production with irrigation in India. <i>Food Security</i> , 2015, 7, 835-856.	5.3	26
53	Improved estimation of nitrogen uptake in grasslands using the nitrogen dilution curve. <i>Agronomy for Sustainable Development</i> , 2015, 35, 1561-1570.	5.3	9
54	Intensity of heat stress in winter wheat's phenology compensates for the adverse effect of global warming. <i>Environmental Research Letters</i> , 2015, 10, 024012.	5.2	95

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55	Adaptation of crop production to climate change by crop substitution. <i>Mitigation and Adaptation Strategies for Global Change</i> , 2015, 20, 1155-1174.	2.1	23
56	Demand for multi-scale weather data for regional crop modeling. <i>Agricultural and Forest Meteorology</i> , 2015, 200, 156-171.	4.8	74
57	Effect of weather data aggregation on regional crop simulation for different crops, production conditions, and response variables. <i>Climate Research</i> , 2015, 65, 141-157.	1.1	43
58	Variability of effects of spatial climate data aggregation on regional yield simulation by crop models. <i>Climate Research</i> , 2015, 65, 53-69.	1.1	39
59	Water footprints of cities – indicators for sustainable consumption and production. <i>Hydrology and Earth System Sciences</i> , 2014, 18, 213-226.	4.9	69
60	Diet change – a solution to reduce water use?. <i>Environmental Research Letters</i> , 2014, 9, 074016.	5.2	149
61	Future crop production threatened by extreme heat. <i>Environmental Research Letters</i> , 2014, 9, 041001.	5.2	53
62	Impact of heat stress on crop yield – on the importance of considering canopy temperature. <i>Environmental Research Letters</i> , 2014, 9, 044012.	5.2	151
63	Leverage points for improving global food security and the environment. <i>Science</i> , 2014, 345, 325-328.	12.6	584
64	Combined impacts of climate and nutrient fertilization on yields of pearl millet in Niger. <i>European Journal of Agronomy</i> , 2014, 55, 77-88.	4.1	22
65	Improvements in crop water productivity increase water sustainability and food security – a global analysis. <i>Environmental Research Letters</i> , 2013, 8, 024030.	5.2	187
66	From Food Insufficiency towards Trade Dependency: A Historical Analysis of Global Food Availability. <i>PLoS ONE</i> , 2013, 8, e82714.	2.5	188
67	The Role of Virtual Water Flows in Physical Water Scarcity: The Case of Central Asia. <i>International Journal of Water Resources Development</i> , 2012, 28, 453-474.	2.0	33
68	Lost food, wasted resources: Global food supply chain losses and their impacts on freshwater, cropland, and fertiliser use. <i>Science of the Total Environment</i> , 2012, 438, 477-489.	8.0	896
69	Shifts in comparative advantages for maize, oat and wheat cropping under climate change in Europe. <i>Food Additives and Contaminants - Part A Chemistry, Analysis, Control, Exposure and Risk Assessment</i> , 2012, 29, 1514-1526.	2.3	63
70	Spatio-temporal patterns of phenological development in Germany in relation to temperature and day length. <i>Agricultural and Forest Meteorology</i> , 2012, 152, 44-57.	4.8	135
71	Impact of water withdrawals from groundwater and surface water on continental water storage variations. <i>Journal of Geodynamics</i> , 2012, 59-60, 143-156.	1.6	477
72	Changes in time of sowing, flowering and maturity of cereals in Europe under climate change. <i>Food Additives and Contaminants - Part A Chemistry, Analysis, Control, Exposure and Risk Assessment</i> , 2012, 29, 1527-1542.	2.3	135

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73	Solutions for a cultivated planet. <i>Nature</i> , 2011, 478, 337-342.	27.8	5,821
74	Exploring global irrigation patterns: A multilevel modelling approach. <i>Agricultural Systems</i> , 2011, 104, 703-713.	6.1	58
75	Quantifying blue and green virtual water contents in global crop production as well as potential production losses without irrigation. <i>Journal of Hydrology</i> , 2010, 384, 198-217.	5.4	570
76	Anthropogenic transformation of the biomes, 1700 to 2000. <i>Global Ecology and Biogeography</i> , 2010, 19, 589-606.	5.8	641
77	Global Patterns of Cropland Use Intensity. <i>Remote Sensing</i> , 2010, 2, 1625-1643.	4.0	117
78	Groundwater use for irrigation – a global inventory. <i>Hydrology and Earth System Sciences</i> , 2010, 14, 1863-1880.	4.9	1,267
79	MIRCA2000 – Global monthly irrigated and rainfed crop areas around the year 2000: A new high-resolution data set for agricultural and hydrological modeling. <i>Global Biogeochemical Cycles</i> , 2010, 24, .	4.9	1,032
80	Use of a tri-axial accelerometer for automated recording and classification of goats' grazing behaviour. <i>Applied Animal Behaviour Science</i> , 2009, 119, 158-170.	1.9	128
81	Climate and irrigation water use of a mountain oasis in northern Oman. <i>Agricultural Water Management</i> , 2007, 89, 1-14.	5.6	35
82	Filling the voids in the SRTM elevation model – A TIN-based delta surface approach. <i>ISPRS Journal of Photogrammetry and Remote Sensing</i> , 2007, 62, 283-294.	11.1	55
83	Development and validation of the global map of irrigation areas. <i>Hydrology and Earth System Sciences</i> , 2005, 9, 535-547.	4.9	462
84	Agricultural, architectural and archaeological evidence for the role and ecological adaptation of a scattered mountain oasis in Oman. <i>Journal of Arid Environments</i> , 2005, 62, 177-197.	2.4	24
85	Nutrient cycling and field-based partial nutrient balances in two mountain oases of Oman. <i>Field Crops Research</i> , 2005, 94, 149-164.	5.1	33
86	A comparison of global spatial distributions of nitrogen inputs for nonpoint sources and effects on river nitrogen export. <i>Global Biogeochemical Cycles</i> , 2005, 19, n/a-n/a.	4.9	28
87	Non-destructive dry matter estimation of <i>Alhagi sparsifolia</i> vegetation in a desert oasis of Northwest China. <i>Journal of Vegetation Science</i> , 2004, 15, 365-372.	2.2	10
88	Non-destructive dry matter estimation of <i>Alhagi sparsifolia</i> vegetation in a desert oasis of Northwest China. <i>Journal of Vegetation Science</i> , 2004, 15, 365.	2.2	11
89	Global estimates of water withdrawals and availability under current and future 'business-as-usual' conditions. <i>Hydrological Sciences Journal</i> , 2003, 48, 339-348.	2.6	353
90	Development and testing of the WaterGAP 2 global model of water use and availability. <i>Hydrological Sciences Journal</i> , 2003, 48, 317-337.	2.6	663

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91	Global modeling of irrigation water requirements. <i>Water Resources Research</i> , 2002, 38, 8-1-8-10.	4.2	564