Rene Orth

List of Publications by Year
in descending order

46 papers	2,780 citations	159585 30 h-index	214800 47 g-index
99 all docs	99 docs citations	99 times ranked	4007 citing authors

#	Article	IF	Citations
1	Contrasting biophysical and societal impacts of hydro-meteorological extremes. Environmental Research Letters, 2022, 17, 014044.	5.2	13
2	Spatially varying relevance of hydrometeorological hazards for vegetation productivity extremes. Biogeosciences, 2022, 19, 477-489.	3.3	9
3	Invited perspectives: A research agenda towards disaster risk management pathways in multi-(hazard-)risk assessment. Natural Hazards and Earth System Sciences, 2022, 22, 1487-1497.	3.6	27
4	Widespread shift from ecosystem energy to water limitation with climate change. Nature Climate Change, 2022, 12, 677-684.	18.8	64
5	Widespread increasing vegetation sensitivity to soil moisture. Nature Communications, 2022, 13, .	12.8	69
6	Soil moisture signature in global weather balloon soundings. Npj Climate and Atmospheric Science, 2021, 4, .	6.8	15
7	When the Land Surface Shifts Gears. AGU Advances, 2021, 2, e2021AV000414.	5.4	12
8	Revisiting Global Vegetation Controls Using Multiâ€Layer Soil Moisture. Geophysical Research Letters, 2021, 48, e2021GL092856.	4.0	30
9	Global soil moisture data derived through machine learning trained with in-situ measurements. Scientific Data, 2021, 8, 170.	5.3	54
10	Vulnerability of European ecosystems to two compound dry and hot summers in 2018 and 2019. Earth System Dynamics, 2021, 12, 1015-1035.	7.1	49
11	Evaluation of precipitation datasets against local observations in southwestern Iran. International Journal of Climatology, 2020, 40, 4102-4116.	3.5	56
12	Observational evidence of wildfire-promoting soil moisture anomalies. Scientific Reports, 2020, 10, 11008.	3.3	40
13	Sensitivity of Surface Fluxes in the ECMWF Land Surface Model to the Remotely Sensed Leaf Area Index and Root Distribution: Evaluation with Tower Flux Data. Atmosphere, 2020, 11, 1362.	2.3	8
14	Large-scale biospheric drought response intensifies linearly with drought duration in arid regions. Biogeosciences, 2020, 17, 2647-2656.	3.3	27
15	Close co-variation between soil moisture and runoff emerging from multi-catchment data across Europe. Scientific Reports, 2020, 10, 4817.	3.3	25
16	Critical Soil Moisture Derived From Satellite Observations Over Europe. Journal of Geophysical Research D: Atmospheres, 2020, 125, e2019JD031672.	3.3	46
17	Robustness of Process-Based versus Data-Driven Modeling in Changing Climatic Conditions. Journal of Hydrometeorology, 2020, 21, 1929-1944.	1.9	21
18	Climate-dependent propagation of precipitation uncertainty into the water cycle. Hydrology and Earth System Sciences, 2020, 24, 3725-3735.	4.9	14

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19	Evaluation of the HadGEM3-A simulations in view of detection and attribution of human influence on extreme events in Europe. Climate Dynamics, 2019, 52, 1187-1210.	3.8	34
20	State-of-the-art global models underestimate impacts from climate extremes. Nature Communications, 2019, 10, 1005.	12.8	168
21	Was the Cold European Winter of 2009/10 Modified by Anthropogenic Climate Change? An Attribution Study. Journal of Climate, 2018, 31, 3387-3410.	3.2	16
22	Satellite and In Situ Observations for Advancing Global Earth Surface Modelling: A Review. Remote Sensing, 2018, 10, 2038.	4.0	95
23	Drought reduces blue-water fluxes more strongly than green-water fluxes in Europe. Nature Communications, 2018, 9, 3602.	12.8	100
24	Evapotranspiration simulations in ISIMIP2aâ€"Evaluation of spatio-temporal characteristics with a comprehensive ensemble of independent datasets. Environmental Research Letters, 2018, 13, 075001.	5.2	38
25	Regional amplification of projected changes in extreme temperatures strongly controlled by soil moistureâ€temperature feedbacks. Geophysical Research Letters, 2017, 44, 1511-1519.	4.0	189
26	Variability of Soil Moisture and Sea Surface Temperatures Similarly Important for Warm-Season Land Climate in the Community Earth System Model. Journal of Climate, 2017, 30, 2141-2162.	3.2	44
27	Methods and Model Dependency of Extreme Event Attribution: The 2015 European Drought. Earth's Future, 2017, 5, 1034-1043.	6.3	59
28	Advancing land surface model development with satellite-based Earth observations. Hydrology and Earth System Sciences, 2017, 21, 2483-2495.	4.9	39
29	Global evaluation of runoff from 10 state-of-the-art hydrological models. Hydrology and Earth System Sciences, 2017, 21, 2881-2903.	4.9	146
30	Investigating soil moistureâ€"climate interactions with prescribed soil moisture experiments: an assessment with the Community Earth System Model (version 1.2). Geoscientific Model Development, 2017, 10, 1665-1677.	3.6	23
31	Refining multi-model projections of temperature extremes by evaluation against landâ€"atmosphere coupling diagnostics. Earth System Dynamics, 2017, 8, 387-403.	7.1	53
32	Bivariate return periods of temperature and precipitation explain aÂlarge fraction of European crop yields. Biogeosciences, 2017, 14, 3309-3320.	3.3	69
33	A global water resources ensemble of hydrological models: the eartH2Observe Tier-1 dataset. Earth System Science Data, 2017, 9, 389-413.	9.9	169
34	Did European temperatures in 1540 exceed present-day records?. Environmental Research Letters, 2016, 11, 114021.	5.2	39
35	Improving Weather Predictability by Including Land Surface Model Parameter Uncertainty. Monthly Weather Review, 2016, 144, 1551-1569.	1.4	44
36	Role of soil moisture versus recent climate change for the 2010 heat wave in western Russia. Geophysical Research Letters, 2016, 43, 2819-2826.	4.0	160

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37	Record dry summer in 2015 challenges precipitation projections in Central Europe. Scientific Reports, 2016, 6, 28334.	3.3	115
38	A submonthly database for detecting changes in vegetationâ€atmosphere coupling. Geophysical Research Letters, 2015, 42, 9816-9824.	4.0	66
39	Impact of soil moisture on extreme maximum temperatures in Europe. Weather and Climate Extremes, 2015, 9, 57-67.	4.1	149
40	Does model performance improve with complexity? A case study with three hydrological models. Journal of Hydrology, 2015, 523, 147-159.	5.4	132
41	Introduction of a simple-model-based land surface dataset for Europe. Environmental Research Letters, 2015, 10, 044012.	5.2	25
42	Using soil moisture forecasts for sub-seasonal summer temperature predictions in Europe. Climate Dynamics, 2014, 43, 3403-3418.	3.8	29
43	Predictability of soil moisture and streamflow on subseasonal timescales: A case study. Journal of Geophysical Research D: Atmospheres, 2013, 118, 10,963.	3.3	31
44	Inferring Soil Moisture Memory from Streamflow Observations Using a Simple Water Balance Model. Journal of Hydrometeorology, 2013, 14, 1773-1790.	1.9	36
45	Propagation of soil moisture memory to streamflow and evapotranspiration in Europe. Hydrology and Earth System Sciences, 2013, 17, 3895-3911.	4.9	36
46	Analysis of soil moisture memory from observations in Europe. Journal of Geophysical Research, 2012, 117, .	3.3	75