Matthias Forkel

List of Publications by Year in Descending Order

46 papers	2,585 citations	21 h-index	50 g-index
85 ext. papers	3,404 ext. citations	10.8 avg, IF	4.86 L-index

#	Paper	IF	Citations
46	VODCA2GPP – a new, global, long-term (1988–2020) gross primary production dataset from microwave remote sensing. *Earth System Science Data*, **2022**, 14, 1063-1085	10.5	1
45	Global quantification of the bidirectional dependency between soil moisture and vegetation productivity. *Agricultural and Forest Meteorology*, **2021**, 108735	5.8	1
44	Impact of temperature and water availability on microwave-derived gross primary production. *Biogeosciences*, **2021**, 18, 3285-3308	4.6	3
43	Revisiting Global Vegetation Controls Using Multi-Layer Soil Moisture. *Geophysical Research Letters*, **2021**, 48, e2021GL092856	4.9	3
42	The importance of antecedent vegetation and drought conditions as global drivers of burnt area. *Biogeosciences*, **2021**, 18, 3861-3879	4.6	4
41	CM2Mc-LPJmL v1.0: biophysical coupling of a process-based dynamic vegetation model with managed land to a general circulation model. *Geoscientific Model Development*, **2021**, 14, 4117-4141	6.3	0
40	Human and climate drivers of global biomass burning variability. *Science of the Total Environment*, **2021**, 779, 146361	10.2	13
39	The three major axes of terrestrial ecosystem function. *Nature*, **2021**, 598, 468-472	50.4	8
38	Does ASCAT observe the spring reactivation in temperate deciduous broadleaf forests?. *Remote Sensing of Environment*, **2020**, 250, 112042	13.2	5
37	Global ecosystems and fire: Multi-model assessment of fire-induced tree-cover and carbon storage reduction. *Global Change Biology*, **2020**, 26, 5027-5041	11.4	17
36	The global long-term microwave Vegetation Optical Depth Climate Archive (VODCA). *Earth System Science Data*, **2020**, 12, 177-196	10.5	50
35	Earth Observation for agricultural drought monitoring in the Pannonian Basin (southeastern Europe): current state and future directions. *Regional Environmental Change*, **2020**, 20, 1	4.3	12
34	Improving the LPJmL4-SPITFIRE vegetation-fire model for South America using satellite data **2019**,		1
33	Recent global and regional trends in burned area and their compensating environmental controls. *Environmental Research Communications*, **2019**, 1, 051005	3.1	31
32	A carbon sink-driven approach to estimate gross primary production from microwave satellite observations. *Remote Sensing of Environment*, **2019**, 229, 100-113	13.2	21
31	Isotope labeling reveals contribution of newly fixed carbon to carbon storage and monoterpenes production under water deficit and carbon limitation. *Environmental and Experimental Botany*, **2019**, 162, 333-344	5.9	9
30	Emergent relationships with respect to burned area in global satellite observations and fire-enabled vegetation models. *Biogeosciences*, **2019**, 16, 57-76	4.6	54

29	Deriving Field Scale Soil Moisture from Satellite Observations and Ground Measurements in a Hilly Agricultural Region. *Remote Sensing*, **2019**, 11, 2596	5	19
28	Constraining modelled global vegetation dynamics and carbon turnover using multiple satellite observations. *Scientific Reports*, **2019**, 9, 18757	4.9	12
27	Improving the LPJmL4-SPITFIRE vegetation–fire model for South America using satellite data. *Geoscientific Model Development*, **2019**, 12, 5029-5054	6.3	4
26	Assessing the relationship between microwave vegetation optical depth and gross primary production. *International Journal of Applied Earth Observation and Geoinformation*, **2018**, 65, 79-91	7.3	31
25	LPJmL4 – a dynamic global vegetation model with managed land – Part 1: Model description. *Geoscientific Model Development*, **2018**, 11, 1343-1375	6.3	82
24	Widespread seasonal compensation effects of spring warming on northern plant productivity. *Nature*, **2018**, 562, 110-114	50.4	134
23	LPJmL4 – a dynamic global vegetation model with managed land – Part 2: Model evaluation. *Geoscientific Model Development*, **2018**, 11, 1377-1403	6.3	38
22	A data-driven approach to identify controls on global fire activity from satellite and climate observations (SOFIA V1). *Geoscientific Model Development*, **2017**, 10, 4443-4476	6.3	37
21	LPJmL4 – a dynamic global vegetation model with managed land: Part II – Model evaluation **2017**,		1
20	ESA CCI Soil Moisture for improved Earth system understanding: State-of-the art and future directions. *Remote Sensing of Environment*, **2017**, 203, 185-215	13.2	488
19	Contrasting and interacting changes in simulated spring and summer carbon cycle extremes in European ecosystems. *Environmental Research Letters*, **2017**, 12, 075006	6.2	26
18	The response of ecosystem water-use efficiency to rising atmospheric CO concentrations: sensitivity and large-scale biogeochemical implications. *New Phytologist*, **2017**, 213, 1654-1666	9.8	57
17	Enhanced seasonal CO2 exchange caused by amplified plant productivity in northern ecosystems. *Science*, **2016**, 351, 696-9	33.3	240
16	Phenopix: A R package for image-based vegetation phenology. *Agricultural and Forest Meteorology*, **2016**, 220, 141-150	5.8	93
15	Identifying required model structures to predict global fire activity from satellite and climate data **2016**,		2
14	A novel bias correction methodology for climate impact simulations. *Earth System Dynamics*, **2016**, 7, 71-88	4.8	56
13	Large-scale variation in boreal and temperate forest carbon turnover rate related to climate. *Geophysical Research Letters*, **2016**, 43, 4576-4585	4.9	26
12	Codominant water control on global interannual variability and trends in land surface phenology and greenness. *Global Change Biology*, **2015**, 21, 3414-35	11.4	121

11	Detecting immediate wildfire impact on runoff in a poorly-gauged mountainous permafrost basin. *Hydrological Sciences Journal*, **2015**, 60, 1225-1241	3.5	10
10	Global covariation of carbon turnover times with climate in terrestrial ecosystems. *Nature*, **2014**, 514, 213-7	50.4	446
9	Identifying environmental controls on vegetation greenness phenology through model–data integration. *Biogeosciences*, **2014**, 11, 7025-7050	4.6	57
8	Pan-Arctic Climate and Land Cover Trends Derived from Multi-Variate and Multi-Scale Analyses (1981–2012). *Remote Sensing*, **2014**, 6, 2296-2316	5	23
7	Identification of land surface temperature and albedo trends in AVHRR Pathfinder data from 1982 to 2005 for northern Siberia. *International Journal of Remote Sensing*, **2013**, 34, 4491-4507	3.1	3
6	Trend Change Detection in NDVI Time Series: Effects of Inter-Annual Variability and Methodology. *Remote Sensing*, **2013**, 5, 2113-2144	5	275
5	Extreme fire events are related to previous-year surface moisture conditions in permafrost-underlain larch forests of Siberia. *Environmental Research Letters*, **2012**, 7, 044021	6.2	39
4	Understanding and modelling wildfire regimes: an ecological perspective. *Environmental Research Letters*,	6.2	5
3	A novel bias correction methodology for climate impact simulations		1
2	The Global Long-term Microwave Vegetation Optical Depth Climate Archive VODCA		2
1	Supplementary material to "The Global Long-term Microwave Vegetation Optical Depth Climate Archive VODCA"		2