Moritz Langer

List of Publications by Year
in descending order

Source: https://exaly.com/author-pdf/3690493/publications.pdf

Version: 2024-02-01

58 papers	3,017 citations	126907 33 h-index	182427 51 g-index
76 all docs	76 docs citations	76 times ranked	3053 citing authors

#	Article	IF	Citations
1	Baseline characteristics of climate, permafrost and land cover from a new permafrost observatory in the Lena River Delta, Siberia (1998â€“2011). Biogeosciences, 2013, 10, 2105-2128.	3.3	144
2	Fast response of cold ice-rich permafrost in northeast Siberia to a warming climate. Nature Communications, 2020, 11, 2201.	12.8	134
3	Small ponds with major impact: The relevance of ponds and lakes in permafrost landscapes to carbon dioxide emissions. Global Biogeochemical Cycles, 2012, 26, .	4.9	131
4	Simulating high-latitude permafrost regions by the JSBACH terrestrial ecosystem model. Geoscientific Model Development, 2014, 7, 631-647.	3.6	109
5	SMOS prototype algorithm for detecting autumn soil freezing. Remote Sensing of Environment, 2016, 180, 346-360.	11.0	109
6	Simulating the thermal regime and thaw processes of ice-rich permafrost ground with the land-surface model CryoGrid 3. Geoscientific Model Development, 2016, 9, 523-546.	3.6	104
7	The annual surface energy budget of a high-arctic permafrost site on Svalbard, Norway. Cryosphere, 2009, 3, 245-263.	3.9	104
8	Spatial and temporal variations of summer surface temperatures of high-arctic tundra on Svalbard â€" Implications for MODIS LST based permafrost monitoring. Remote Sensing of Environment, 2011, 115, 908-922.	11.0	97
9	Modeling the impact of wintertime rain events on the thermal regime of permafrost. Cryosphere, 2011, 5, 945-959.	3.9	95
10	Subpixel heterogeneity of ice-wedge polygonal tundra: a multi-scale analysis of land cover and evapotranspiration in the Lena River Delta, Siberia. Tellus, Series B: Chemical and Physical Meteorology, 2022, 64, 17301.	1.6	94
11	Satellite-based modeling of permafrost temperatures in a tundra lowland landscape. Remote Sensing of Environment, 2013, 135, 12-24.	11.0	91
12	An improved representation of physical permafrost dynamics in the JULES land-surface model. Geoscientific Model Development, 2015, 8, 1493-1508.	3.6	79
13	The surface energy balance of a polygonal tundra site in northern Siberia â€“ Part 1: Spring to fall. Cryosphere, 2011, 5, 151-171.	3.9	77
14	Systematic bias of average winter-time land surface temperatures inferred from MODIS at a site on Svalbard, Norway. Remote Sensing of Environment, 2012, 118, 162-167.	11.0	75
15	Spatial and temporal variations of summer surface temperatures of wet polygonal tundra in Siberia - implications for MODIS LST based permafrost monitoring. Remote Sensing of Environment, 2010, 114, 2059-2069.	11.0	74
16	Spatial and seasonal variability of polygonal tundra water balance: Lena River Delta, northern Siberia (Russia). Hydrogeology Journal, 2013, 21, 133-147.	2.1	71
17	Satellite-derived changes in the permafrost landscape of central Yakutia, 2000â€“2011: Wetting, drying, and fires. Global and Planetary Change, 2016, 139, 116-127.	3.5	69
18	Thaw Subsidence of a Yedoma Landscape in Northern Siberia, Measured In Situ and Estimated from TerraSAR-X Interferometry. Remote Sensing, 2018, 10, 494.	4.0	69

#	Article	IF	Citations
19	A 16-year record (2002â€“2017) of permafrost, active-layer, and meteorological conditions at the Samoylov Island Arctic permafrost research site, Lena River delta, northern Siberia: an opportunity to validate remote-sensing data and land surface, snow, and permafrost models. Earth System Science Data, 2019, 11, 261-299.	9.9	69
20	The surface energy balance of a polygonal tundra site in northern Siberia â€“ Part 2: Winter. Cryosphere, 2011, 5, 509-524.	3.9	63
21	PeRL: aÂcircum-Arctic Permafrost Region Pond andÂLakeÂdatabase. Earth System Science Data, 2017, 9, 317-348.	9.9	62
22	Spatio-temporal sensitivity of MODIS land surface temperature anomalies indicates high potential for large-scale land cover change detection in Arctic permafrost landscapes. Remote Sensing of Environment, 2015, 168, 1-12.	11.0	58
23	Frozen ponds: production and storage of methane during the Arctic winter in a lowland tundra landscape in northern Siberia, Lena River delta. Biogeosciences, 2015, 12, 977-990.	3.3	58
24	Thaw processes in ice-rich permafrost landscapes represented with laterally coupled tiles in a land surface model. Cryosphere, 2019, 13, 591-609.	3.9	57
25	Impact of model developments on present and future simulations of permafrost in a global land-surface model. Cryosphere, 2015, 9, 1505-1521.	3.9	54
26	Rapid degradation of permafrost underneath waterbodies in tundra landscapesâ€”Toward a representation of thermokarst in land surface models. Journal of Geophysical Research F: Earth Surface, 2016, 121, 2446-2470.	2.8	54
27	Latent heat exchange in the boreal and arctic biomes. Global Change Biology, 2014, 20, 3439-3456.	9.5	52
28	Pathways of ice-wedge degradation in polygonal tundra under different hydrological conditions. Cryosphere, 2019, 13, 1089-1123.	3.9	46
29	Permafrost Thaw and Liberation of Inorganic Nitrogen in Eastern Siberia. Permafrost and Periglacial Processes, 2017, 28, 605-618.	3.4	43
30	Carbon stocks and fluxes in the high latitudes: using site-level data to evaluate Earth system models. Biogeosciences, 2017, 14, 5143-5169.	3.3	43
31	Consequences of permafrost degradation for Arctic infrastructure â€“ bridging the model gap between regional and engineering scales. Cryosphere, 2021, 15, 2451-2471.	3.9	42
32	Site-level model intercomparison of high latitude and high altitude soil thermal dynamics in tundra and barren landscapes. Cryosphere, 2015, 9, 1343-1361.	3.9	41
33	Transient modeling of the ground thermal conditions using satellite data in the Lena River delta, Siberia. Cryosphere, 2017, 11, 1441-1463.	3.9	41
34	Freeze/thaw processes in complex permafrost landscapes of northern Siberia simulated using the TEM ecosystem model: impact of thermokarst ponds and lakes. Geoscientific Model Development, 2014, 7, 1671-1689.	3.6	39
35	Thermal processes of thermokarst lakes in the continuous permafrost zone of northern Siberia â€“ observations and modeling (Lena River Delta, Siberia). Biogeosciences, 2015, 12, 5941-5965.	3.3	38
36	Observation and modelling of snow at a polygonal tundra permafrost site: spatial variability and thermal implications. Cryosphere, 2018, 12, 3693-3717.	3.9	33

#	Article	IF	Citations
37	Monitoring Bedfast Ice and Ice Phenology in Lakes of the Lena River Delta Using TerraSAR-X Backscatter and Coherence Time Series. Remote Sensing, 2016, 8, 903.	4.0	32
38	Spatio-temporal variability of X-band radar backscatter and coherence over the Lena River Delta, Siberia. Remote Sensing of Environment, 2016, 182, 169-191.	11.0	30
39	Size Distributions of Arctic Waterbodies Reveal Consistent Relations in Their Statistical Moments in Space and Time. Frontiers in Earth Science, 2019, 7, .	1.8	25
40	Improving Permafrost Modeling by Assimilating Remotely Sensed Soil Moisture. Water Resources Research, 2019, 55, 1814-1832.	4.2	22
41	Permafrost â€“ Physical Aspects, Carbon Cycling, Databases and Uncertainties. , 2012, , 159-185.		20
42	Climate change reduces winter overland travel across the Pan-Arctic even under low-end global warming scenarios. Environmental Research Letters, 2021, 16, 024049.	5.2	20
43	Simulating Snow Redistribution and its Effect on Ground Surface Temperature at a Highâ€Arctic Site on Svalbard. Journal of Geophysical Research F: Earth Surface, 2021, 126, e2020JF005673.	2.8	20
44	A long-term (2002 to 2017) record of closed-path and open-path eddy covariance CO₂ net ecosystem exchange fluxes from the Siberian Arctic. Earth System Science Data, 2019, 11, 221-240.	9.9	20
45	Variability of the surface energy balance in permafrost-underlain boreal forest. Biogeosciences, 2021, 18, 343-365.	3.3	19
46	Multitemporal terrestrial laser scanning point clouds for thaw subsidence observation at Arctic permafrost monitoring sites. Earth Surface Processes and Landforms, 2020, 45, 1589-1600.	2.5	17
47	Effects of multi-scale heterogeneity on the simulated evolution of ice-rich permafrost lowlands under a warming climate. Cryosphere, 2021, 15, 1399-1422.	3.9	16
48	A Quantitative Graph-Based Approach to Monitoring Ice-Wedge Trough Dynamics in Polygonal Permafrost Landscapes. Remote Sensing, 2021, 13, 3098.	4.0	12
49	Lateral thermokarst patterns in permafrost peat plateaus in northern Norway. Cryosphere, 2021, 15, 3423-3442.	3.9	11
50	Sensitivity of ecosystem-protected permafrost under changing boreal forest structures. Environmental Research Letters, 2021, 16, 084045.	5.2	11
51	Lakeâ€Atmosphere Heat Flux Dynamics of a Thermokarst Lake in Arctic Siberia. Journal of Geophysical Research D: Atmospheres, 2018, 123, 5222-5239.	3.3	10
52	Serpentine (Floating) Ice Channels and their Interaction with Riverbed Permafrost in the Lena River Delta, Russia. Frontiers in Earth Science, 0, 9, .	1.8	10
53	Surface temperatures and their influence on the permafrost thermal regime in high-Arctic rock walls on Svalbard. Cryosphere, 2021, 15, 2491-2509.	3.9	7
54	Novel coupled permafrostâ€“forest model (LAVESIâ€“CryoGrid v1.0) revealing the interplay between permafrost, vegetation, and climate across eastern Siberia. Geoscientific Model Development, 2022, 15, 2395-2422.	3.6	7

#	Article	IF	Citations
55	Borehole temperature reconstructions reveal differences in past surface temperature trends for the permafrost in the Laptev Sea region, Russian Arctic. Arktos, 2018, 4, 1-17.	1.0	5
56	Monitoring the Transformation of Arctic Landscapes: Automated Shoreline Change Detection of Lakes Using Very High Resolution Imagery. Remote Sensing, 2021, 13, 2802.	4.0	5
57	Low Cost, Mobile Sensor System for Measurement of Carbon Dioxide in Permafrost Areas. Procedia Engineering, 2014, 87, 1318-1321.	1.2	3
58	Thermohydrological Impact of Forest Disturbances on Ecosystemâ€Protected Permafrost. Journal of Geophysical Research G: Biogeosciences, 2022, 127, .	3.0	3