Julia Boike

List of Publications by Year in descending order

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119 papers	8,198 citations	50566 48 h-index	62345 84 g-index
202 all docs	202 docs citations	202 times ranked	8415 citing authors

#	Article	IF	Citations
1	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.	0.8	94
2	Standardized monitoring of permafrost thaw: a user-friendly, multiparameter protocol. Arctic Science, 2022, 8, 153-182.	0.9	9
3	MOSES: A Novel Observation System to Monitor Dynamic Events across Earth Compartments. Bulletin of the American Meteorological Society, 2022, 103, E339-E348.	1.7	9
4	Origin and Pathways of Dissolved Organic Carbon in a Small Catchment in the Lena River Delta. Frontiers in Earth Science, 2022, 9, .	0.8	2
5	The ABCflux database: Arcticâ€“boreal CO₂ flux observations and ancillary information aggregated to monthly time steps across terrestrial ecosystems. Earth System Science Data, 2022, 14, 179-208.	3.7	22
6	Global maps of soil temperature. Global Change Biology, 2022, 28, 3110-3144.	4.2	113
7	Winters are changing: snow effects on Arctic and alpine tundra ecosystems. Arctic Science, 2022, 8, 572-608.	0.9	43
8	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.	1.3	7
9	Earlier snowmelt may lead to late season declines in plant productivity and carbon sequestration in Arctic tundra ecosystems. Scientific Reports, 2022, 12, 3986.	1.6	16
10	Explicitly modelling microtopography in permafrost landscapes in a land surface model (JULES) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 382	1.3	6
11	Thermohydrological Impact of Forest Disturbances on Ecosystemâ€Protected Permafrost. Journal of Geophysical Research G: Biogeosciences, 2022, 127, .	1.3	3
12	Variability of the surface energy balance in permafrost-underlain boreal forest. Biogeosciences, 2021, 18, 343-365.	1.3	19
13	Climate change reduces winter overland travel across the Pan-Arctic even under low-end global warming scenarios. Environmental Research Letters, 2021, 16, 024049.	2.2	20
14	Effects of multi-scale heterogeneity on the simulated evolution of ice-rich permafrost lowlands under a warming climate. Cryosphere, 2021, 15, 1399-1422.	1.5	16
15	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.	1.0	20
16	High Levels of CO₂ Exchange During Synopticâ€Scale Events Introduce Large Uncertainty Into the Arctic Carbon Budget. Geophysical Research Letters, 2021, 48, e2020GL092256.	1.5	6
17	Surface temperatures and their influence on the permafrost thermal regime in high-Arctic rock walls on Svalbard. Cryosphere, 2021, 15, 2491-2509.	1.5	7
18	First pan-Arctic assessment of dissolved organic carbon in lakes of the permafrost region. Biogeosciences, 2021, 18, 3917-3936.	1.3	12

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19	Monitoring the Transformation of Arctic Landscapes: Automated Shoreline Change Detection of Lakes Using Very High Resolution Imagery. Remote Sensing, 2021, 13, 2802.	1.8	5
20	Sensitivity of ecosystem-protected permafrost under changing boreal forest structures. Environmental Research Letters, 2021, 16, 084045.	2.2	11
21	Shallow soils are warmer under trees and tall shrubs across Arctic and Boreal ecosystems. Environmental Research Letters, 2021, 16, 015001.	2.2	39
22	Importance of the Webb, Pearman, and Leuning (WPL) correction for the measurement of small CO₂ fluxes. Atmospheric Measurement Techniques, 2021, 14, 7291-7296.	1.2	2
23	Permafrost Active Layer Microbes From Ny Ã…lesund, Svalbard (79Â°N) Show Autotrophic and Heterotrophic Metabolisms With Diverse Carbon-Degrading Enzymes. Frontiers in Microbiology, 2021, 12, 757812.	1.5	7
24	The FLUXNET2015 dataset and the ONEFlux processing pipeline for eddy covariance data. Scientific Data, 2020, 7, 225.	2.4	646
25	Debris cover on thaw slumps and its insulative role in a warming climate. Earth Surface Processes and Landforms, 2020, 45, 2631-2646.	1.2	8
26	Modeled Microbial Dynamics Explain the Apparent Temperature Sensitivity of Wetland Methane Emissions. Global Biogeochemical Cycles, 2020, 34, e2020GB006678.	1.9	34
27	Fast response of cold ice-rich permafrost in northeast Siberia to a warming climate. Nature Communications, 2020, 11, 2201.	5.8	134
28	Multitemporal terrestrial laser scanning point clouds for thaw subsidence observation at Arctic permafrost monitoring sites. Earth Surface Processes and Landforms, 2020, 45, 1589-1600.	1.2	17
29	SoilTemp: A global database of nearâ€surface temperature. Global Change Biology, 2020, 26, 6616-6629.	4.2	122
30	Moisture origin as a driver of temporal variabilities of the water vapour isotopic composition in the Lena River Delta, Siberia. Atmospheric Chemistry and Physics, 2020, 20, 10493-10511.	1.9	17
31	Linking tundra vegetation, snow, soil temperature, and permafrost. Biogeosciences, 2020, 17, 4261-4279.	1.3	48
32	Estimating tree height from TanDEM-X data at the northwestern Canadian treeline. Remote Sensing of Environment, 2019, 231, 111251.	4.6	11
33	Pathways of ice-wedge degradation in polygonal tundra under different hydrological conditions. Cryosphere, 2019, 13, 1089-1123.	1.5	46
34	Thaw processes in ice-rich permafrost landscapes represented with laterally coupled tiles in a land surface model. Cryosphere, 2019, 13, 591-609.	1.5	57
35	Size Distributions of Arctic Waterbodies Reveal Consistent Relations in Their Statistical Moments in Space and Time. Frontiers in Earth Science, 2019, 7, .	0.8	25
36	Improving Permafrost Modeling by Assimilating Remotely Sensed Soil Moisture. Water Resources Research, 2019, 55, 1814-1832.	1.7	22

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37	Permafrost is warming at a global scale. Nature Communications, 2019, 10, 264.	5.8	1,039
38	Correction to â€œA Statistical Test of Phase Closure to Detect Influences on DInSAR Deformation Estimates Besides Displacements and Decorrelation Noise: Two Case Studies in High-Latitude Regionsâ€• [Sep 16 5588-5601]. IEEE Transactions on Geoscience and Remote Sensing, 2019, 57, 623-623.	2.7	1
39	Scaling and balancing methane fluxes in a heterogeneous tundra ecosystem of the Lena River Delta. Agricultural and Forest Meteorology, 2019, 266-267, 243-255.	1.9	7
40	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.	3.7	20
41	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.	3.7	69
42	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
43	Sorted patterned ground in a karst cave, Ledenica pod HruÅ¡ico, Slovenia. Permafrost and Periglacial Processes, 2018, 29, 121-130.	1.5	10
44	Observation and modelling of snow at a polygonal tundra permafrost site: spatial variability and thermal implications. Cryosphere, 2018, 12, 3693-3717.	1.5	33
45	ESM-SnowMIP: assessing snow models and quantifying snow-related climate feedbacks. Geoscientific Model Development, 2018, 11, 5027-5049.	1.3	119
46	Remote sensing quantifies widespread abundance of permafrost region disturbances across the Arctic and Subarctic. Nature Communications, 2018, 9, 5423.	5.8	179
47	Ensemble-based assimilation of fractional snow-covered area satellite retrievals to estimate the snow distribution at Arctic sites. Cryosphere, 2018, 12, 247-270.	1.5	40
48	Sub-seasonal thaw slump mass wasting is not consistently energy limited at the landscape scale. Cryosphere, 2018, 12, 549-564.	1.5	35
49	Thaw Subsidence of a Yedoma Landscape in Northern Siberia, Measured In Situ and Estimated from TerraSAR-X Interferometry. Remote Sensing, 2018, 10, 494.	1.8	69
50	Lakeâ€Atmosphere Heat Flux Dynamics of a Thermokarst Lake in Arctic Siberia. Journal of Geophysical Research D: Atmospheres, 2018, 123, 5222-5239.	1.2	10
51	A 20-year record (1998â€“2017) of permafrost, active layer and meteorological conditions at a high Arctic permafrost research site (Bayelva, Spitsbergen). Earth System Science Data, 2018, 10, 355-390.	3.7	47
52	Structure of freshwater zooplankton communities from tundra waterbodies in the Lena River Delta, Russian Arctic, with a discussion on new records of glacial relict copepods. Polar Biology, 2017, 40, 1629-1643.	0.5	18
53	Estimation of high-resolution terrestrial evapotranspiration from Landsat data using a simple Taylor skill fusion method. Journal of Hydrology, 2017, 553, 508-526.	2.3	41
54	Background invertebrate herbivory on dwarf birch (Betula glandulosa-nana complex) increases with temperature and precipitation across the tundra biome. Polar Biology, 2017, 40, 2265-2278.	0.5	47

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55	Permafrost Thaw and Liberation of Inorganic Nitrogen in Eastern Siberia. Permafrost and Periglacial Processes, 2017, 28, 605-618.	1.5	43
56	Transient modeling of the ground thermal conditions using satellite data in the Lena River delta, Siberia. Cryosphere, 2017, 11, 1441-1463.	1.5	41
57	Carbon stocks and fluxes in the high latitudes: using site-level data to evaluate Earth system models. Biogeosciences, 2017, 14, 5143-5169.	1.3	43
58	Surface energy fluxes during the total solar eclipse over Ny-Ã...lesund, Svalbard, on 20ÂMarch 2015. Meteorologische Zeitschrift, 2017, 26, 431-440.	0.5	3
59	PeRL: aÂcircum-Arctic Permafrost Region Pond andÂLakeÂdatabase. Earth System Science Data, 2017, 9, 317-348.	3.7	62
60	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.	1.8	32
61	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.	1.3	104
62	Monitoring permafrost and thermokarst processes with TanDEM-X DEM time series: Opportunities and limitations. , 2016, , .		2
63	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.	1.0	54
64	SMOS prototype algorithm for detecting autumn soil freezing. Remote Sensing of Environment, 2016, 180, 346-360.	4.6	109
65	Impact of climate warming on snow processes in Ny-Ã...lesund, a polar maritime site at Svalbard. Global and Planetary Change, 2016, 146, 10-21.	1.6	40
66	Spatio-temporal variability of X-band radar backscatter and coherence over the Lena River Delta, Siberia. Remote Sensing of Environment, 2016, 182, 169-191.	4.6	30
67	A Statistical Test of Phase Closure to Detect Influences on <roman>DInSAR</roman> Deformation Estimates Besides Displacements and Decorrelation Noise: Two Case Studies in High-Latitude Regions. IEEE Transactions on Geoscience and Remote Sensing, 2016, 54, 5588-5601.	2.7	52
68	Satellite-derived changes in the permafrost landscape of central Yakutia, 2000â€"2011: Wetting, drying, and fires. Global and Planetary Change, 2016, 139, 116-127.	1.6	69
69	Pan-Arctic ice-wedge degradation in warming permafrost and its influence on tundra hydrology. Nature Geoscience, 2016, 9, 312-318.	5.4	527
70	Assessing Permafrost Degradation and Land Cover Changes (1986â€"2009) using Remote Sensing Data over Umiujaq, Subâ€Arctic QuÃ©bec. Permafrost and Periglacial Processes, 2015, 26, 129-141.	1.5	55
71	Vertical movements of frost mounds in subarctic permafrost regions analyzed using geodetic survey and satellite interferometry. Earth Surface Dynamics, 2015, 3, 409-421.	1.0	23
72	Observation-based modelling of permafrost carbon fluxes with accounting for deep carbon deposits and thermokarst activity. Biogeosciences, 2015, 12, 3469-3488.	1.3	114

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73	Impact of model developments on present and future simulations of permafrost in a global land-surface model. Cryosphere, 2015, 9, 1505-1521.	1.5	54
74	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.	1.3	38
75	Lena Delta hydrology and geochemistry: long-term hydrological data and recent field observations. Biogeosciences, 2015, 12, 345-363.	1.3	69
76	Site-level model intercomparison of high latitude and high altitude soil thermal dynamics in tundra and barren landscapes. Cryosphere, 2015, 9, 1343-1361.	1.5	41
77	A Comparison between Simulated and Observed Surface Energy Balance at the Svalbard Archipelago. Journal of Applied Meteorology and Climatology, 2015, 54, 1102-1119.	0.6	16
78	An improved representation of physical permafrost dynamics in the JULES land-surface model. Geoscientific Model Development, 2015, 8, 1493-1508.	1.3	79
79	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.	4.6	58
80	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.	1.3	58
81	Simulating high-latitude permafrost regions by the JSBACH terrestrial ecosystem model. Geoscientific Model Development, 2014, 7, 631-647.	1.3	109
82	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.	1.3	39
83	Annual CO₂ budget and seasonal CO₂ exchange signals at a high Arctic permafrost site on Spitsbergen, Svalbard archipelago. Biogeosciences, 2014, 11, 6307-6322.	1.3	43
84	A statistical approach to represent small-scale variability of permafrost temperatures due to snow cover. Cryosphere, 2014, 8, 2063-2074.	1.5	78
85	Latent heat exchange in the boreal and arctic biomes. Global Change Biology, 2014, 20, 3439-3456.	4.2	52
86	Evolution of thermokarst in East Siberian ice-rich permafrost: A case study. Geomorphology, 2013, 201, 363-379.	1.1	92
87	Inter-annual water mass variations from GRACE in central Siberia. Journal of Geodesy, 2013, 87, 287-299.	1.6	29
88	Satellite-based modeling of permafrost temperatures in a tundra lowland landscape. Remote Sensing of Environment, 2013, 135, 12-24.	4.6	91
89	Spatial and seasonal variability of polygonal tundra water balance: Lena River Delta, northern Siberia (Russia). Hydrogeology Journal, 2013, 21, 133-147.	0.9	71
90	A stochastic model for the polygonal tundra based on Poissonâ€“Voronoi diagrams. Earth System Dynamics, 2013, 4, 187-198.	2.7	29

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91	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.	1.3	144
92	Water Body Distributions Across Scales: A Remote Sensing Based Comparison of Three Arctic Tundra Wetlands. Remote Sensing, 2013, 5, 1498-1523.	1.8	103
93	Observation of melt onset in an arctic tundra landscape using high resolution TerraSAR-X and RADARSAT-2 data. , 2012, , .		4
94	ASCAT Surface State Flag (SSF): Extracting Information on Surface Freeze/Thaw Conditions From Backscatter Data Using an Empirical Threshold-Analysis Algorithm. IEEE Transactions on Geoscience and Remote Sensing, 2012, 50, 2566-2582.	2.7	97
95	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.	4.6	75
96	Upscaling methane fluxes from closed chambers to eddy covariance based on a permafrost biogeochemistry integrated model. Global Change Biology, 2012, 18, 1428-1440.	4.2	70
97	How the insulating properties of snow affect soil carbon distribution in the continental panâ€Arctic area. Journal of Geophysical Research, 2012, 117, .	3.3	97
98	Permafrost â€“ Physical Aspects, Carbon Cycling, Databases and Uncertainties. , 2012, , 159-185.		20
99	Small ponds with major impact: The relevance of ponds and lakes in permafrost landscapes to carbon dioxide emissions. Global Biogeochemical Cycles, 2012, 26, .	1.9	131
100	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.	4.6	97
101	The surface energy balance of a polygonal tundra site in northern Siberia â€“ Part 2: Winter. Cryosphere, 2011, 5, 509-524.	1.5	63
102	Modeling the thermal dynamics of the active layer at two contrasting permafrost sites on Svalbard and on the Tibetan Plateau. Cryosphere, 2011, 5, 741-757.	1.5	35
103	The surface energy balance of a polygonal tundra site in northern Siberia â€“ Part 1: Spring to fall. Cryosphere, 2011, 5, 151-171.	1.5	77
104	Modeling the impact of wintertime rain events on the thermal regime of permafrost. Cryosphere, 2011, 5, 945-959.	1.5	95
105	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.	4.6	74
106	Environmental controls on CH₄ emission from polygonal tundra on the microsite scale in the Lena river delta, Siberia. Global Change Biology, 2010, 16, 3096-3110.	4.2	97
107	Monitoring of active layer dynamics at a permafrost site on Svalbard using multi-channel ground-penetrating radar. Cryosphere, 2010, 4, 475-487.	1.5	56
108	The annual surface energy budget of a high-arctic permafrost site on Svalbard, Norway. Cryosphere, 2009, 3, 245-263.	1.5	104

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109	Environmental controls on ecosystemâ€scale CH₄ emission from polygonal tundra in the Lena River Delta, Siberia. Journal of Geophysical Research, 2008, 113, .	3.3	132
110	Climatology and summer energy and water balance of polygonal tundra in the Lena River Delta, Siberia. Journal of Geophysical Research, 2008, 113, .	3.3	123
111	Water, heat and solute dynamics of a mud boil, Spitsbergen. Geomorphology, 2008, 95, 61-73.	1.1	41
112	Application of TopoFlow, a spatially distributed hydrological model, to the Imnavait Creek watershed, Alaska. Journal of Geophysical Research, 2007, 112, .	3.3	23
113	Quantifying permafrost patterns using Minkowski densities. Permafrost and Periglacial Processes, 2005, 16, 277-290.	1.5	14
114	Mapping of periglacial geomorphology using kite/balloon aerial photography. Permafrost and Periglacial Processes, 2003, 14, 81-85.	1.5	53
115	Seasonal snow cover on frozen ground: Energy balance calculations of a permafrost site near Ny-Ã…lesund, Spitsbergen. Journal of Geophysical Research, 2003, 108, ALT 4-1.	3.3	55
116	Quantifying the thermal dynamics of a permafrost site near Ny-Ã…lesund, Svalbard. Water Resources Research, 2001, 37, 2901-2914.	1.7	82
117	Spectral reflectance of melting snow in a high Arctic watershed on Svalbard: some implications for optical satellite remote sensing studies. Hydrological Processes, 1999, 13, 2033-2049.	1.1	38
118	Thermal and hydrologic dynamics of the active layer at a continuous permafrost site (Taymyr) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 382	1.7	88
119	Time domain reflectometry as a field method for measuring water content and soil water electrical conductivity at a continuous permafrost site. Permafrost and Periglacial Processes, 1997, 8, 359-370.	1.5	15