Vladimir E Romanovsky

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15,283 115 123 54 h-index g-index citations papers 18,042 6.34 6.4 134 avg, IF L-index ext. citations ext. papers

#	Paper	IF	Citations
115	Climate change and the permafrost carbon feedback. <i>Nature</i> , 2015 , 520, 171-9	50.4	1667
114	Observational Evidence of Recent Change in the Northern High-Latitude Environment. <i>Climatic Change</i> , 2000 , 46, 159-207	4.5	1452
113	Vulnerability of Permafrost Carbon to Climate Change: Implications for the Global Carbon Cycle. <i>BioScience</i> , 2008 , 58, 701-714	5.7	1138
112	Evidence and Implications of Recent Climate Change in Northern Alaska and Other Arctic Regions. <i>Climatic Change</i> , 2005 , 72, 251-298	4.5	1074
111	Permafrost is warming at a global scale. <i>Nature Communications</i> , 2019 , 10, 264	17.4	518
110	Permafrost thermal state in the polar Northern Hemisphere during the international polar year 2007 2009: a synthesis. <i>Permafrost and Periglacial Processes</i> , 2010 , 21, 106-116	4.2	506
109	Evidence for warming and thawing of discontinuous permafrost in Alaska. <i>Permafrost and Periglacial Processes</i> , 1999 , 10, 17-37	4.2	393
108	Pan-Arctic ice-wedge degradation in warming permafrost and its influence on tundra hydrology. <i>Nature Geoscience</i> , 2016 , 9, 312-318	18.3	378
107	Resilience and vulnerability of permafrost to climate changeThis article is one of a selection of papers from The Dynamics of Change in Alaska Boreal Forests: Resilience and Vulnerability in Response to Climate Warming <i>Canadian Journal of Forest Research</i> , 2010 , 40, 1219-1236	1.9	345
106	Thermal state of permafrost in Russia. Permafrost and Periglacial Processes, 2010, 21, 136-155	4.2	312
105	Vulnerability of high-latitude soil organic carbon in North America to disturbance. <i>Journal of Geophysical Research</i> , 2011 , 116,		292
104	Effects of unfrozen water on heat and mass transport processes in the active layer and permafrost. Permafrost and Periglacial Processes, 2000 , 11, 219-239	4.2	282
103	Importance of recent shifts in soil thermal dynamics on growing season length, productivity, and carbon sequestration in terrestrial high-latitude ecosystems. <i>Global Change Biology</i> , 2006 , 12, 731-750	11.4	269
102	Key indicators of Arctic climate change: 1971\(\textbf{D}\)017. Environmental Research Letters, 2019 , 14, 045010	6.2	260
101	Fire, climate change, and forest resilience in interior AlaskaThis article is one of a selection of papers from The Dynamics of Change in Alaska's Boreal Forests: Resilience and Vulnerability in Response to Climate Warming <i>Canadian Journal of Forest Research</i> , 2010 , 40, 1302-1312	1.9	242
100	Circumpolar distribution and carbon storage of thermokarst landscapes. <i>Nature Communications</i> , 2016 , 7, 13043	17.4	238
99	The impact of the permafrost carbon feedback on global climate. <i>Environmental Research Letters</i> , 2014 , 9, 085003	6.2	218

(2010-2013)

98	Expert assessment of vulnerability of permafrost carbon to climate change. <i>Climatic Change</i> , 2013 , 119, 359-374	4.5	212
97	Sensitivity of a model projection of near-surface permafrost degradation to soil column depth and representation of soil organic matter. <i>Journal of Geophysical Research</i> , 2008 , 113,		207
96	The role of snow cover in the warming of arctic permafrost. <i>Geophysical Research Letters</i> , 2003 , 30,	4.9	205
95	Northern Hemisphere permafrost map based on TTOP modelling for 2000 2 016 at 1 km2 scale. <i>Earth-Science Reviews</i> , 2019 , 193, 299-316	10.2	203
94	Modern thermokarst lake dynamics in the continuous permafrost zone, northern Seward Peninsula, Alaska. <i>Journal of Geophysical Research</i> , 2011 , 116,		196
93	Impacts of wildfire on the permafrost in the boreal forests of Interior Alaska. <i>Journal of Geophysical Research</i> , 2003 , 108, FFR 4-1		191
92	Dependence of the evolution of carbon dynamics in the northern permafrost region on the trajectory of climate change. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2018 , 115, 3882-3887	11.5	186
91	Degrading permafrost puts Arctic infrastructure at risk by mid-century. <i>Nature Communications</i> , 2018 , 9, 5147	17.4	181
90	Interannual variations of the thermal regime of the active layer and near-surface permafrost in northern Alaska. <i>Permafrost and Periglacial Processes</i> , 1995 , 6, 313-335	4.2	177
89	Thawing of the Active Layer on the Coastal Plain of the Alaskan Arctic. <i>Permafrost and Periglacial Processes</i> , 1997 , 8, 1-22	4.2	171
88	Global Climate Model Performance over Alaska and Greenland. <i>Journal of Climate</i> , 2008 , 21, 6156-6174	4.4	161
87	Improved modeling of permafrost dynamics in a GCM land-surface scheme. <i>Geophysical Research Letters</i> , 2007 , 34,	4.9	152
86	Vegetation-soil-thaw-depth relationships along a low-arctic bioclimate gradient, Alaska: synthesis of information from the ATLAS studies. <i>Permafrost and Periglacial Processes</i> , 2003 , 14, 103-123	4.2	140
85	Deep Yedoma permafrost: A synthesis of depositional characteristics and carbon vulnerability. <i>Earth-Science Reviews</i> , 2017 , 172, 75-86	10.2	135
84	Permafrost temperature records: Indicators of climate change. <i>Eos</i> , 2002 , 83, 589	1.5	133
83	A simplified, data-constrained approach to estimate the permafrost carbon-climate feedback. <i>Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences</i> , 2015 , 373,	3	125
82	Numerical modeling of permafrost dynamics in Alaska using a high spatial resolution dataset. Cryosphere, 2012 , 6, 613-624	5.5	122
81	Decadal variations of active-layer thickness in moisture-controlled landscapes, Barrow, Alaska. Journal of Geophysical Research, 2010, 115,		118

80	The Effect of Moisture Content on the Thermal Conductivity of Moss and Organic Soil Horizons From Black Spruce Ecosystems in Interior Alaska. <i>Soil Science</i> , 2009 , 174, 646-651	0.9	118
79	Cumulative geoecological effects of 62lyears of infrastructure and climate change in ice-rich permafrost landscapes, Prudhoe Bay Oilfield, Alaska. <i>Global Change Biology</i> , 2014 , 20, 1211-24	11.4	114
78	Changing permafrost in a warming world and feedbacks to the Earth system. <i>Environmental Research Letters</i> , 2016 , 11, 040201	6.2	107
77	Remote sensing quantifies widespread abundance of permafrost region disturbances across the Arctic and Subarctic. <i>Nature Communications</i> , 2018 , 9, 5423	17.4	107
76	Vulnerability and Feedbacks of Permafrost to Climate Change. <i>Eos</i> , 2011 , 92, 73-74	1.5	106
75	An evaluation of deep soil configurations in the CLM3 for improved representation of permafrost. <i>Geophysical Research Letters</i> , 2007 , 34,	4.9	102
74	Climate Change Drives Widespread and Rapid Thermokarst Development in Very Cold Permafrost in the Canadian High Arctic. <i>Geophysical Research Letters</i> , 2019 , 46, 6681-6689	4.9	98
73	A model for regional-scale estimation of temporal and spatial variability of active layer thickness and mean annual ground temperatures. <i>Permafrost and Periglacial Processes</i> , 2003 , 14, 125-139	4.2	86
72	Variability in the sensitivity among model simulations of permafrost and carbon dynamics in the permafrost region between 1960 and 2009. <i>Global Biogeochemical Cycles</i> , 2016 , 30, 1015-1037	5.9	83
71	High-resolution mapping of ecosystem carbon storage and potential effects of permafrost thaw in periglacial terrain, European Russian Arctic. <i>Journal of Geophysical Research</i> , 2011 , 116,		82
70	Arctic patterned-ground ecosystems: A synthesis of field studies and models along a North American Arctic Transect. <i>Journal of Geophysical Research</i> , 2008 , 113,		78
69	Cryogenesis and soil formation along a bioclimate gradient in Arctic North America. <i>Journal of Geophysical Research</i> , 2008 , 113,		76
68	Long-Term Release of Carbon Dioxide from Arctic Tundra Ecosystems in Alaska. <i>Ecosystems</i> , 2017 , 20, 960-974	3.9	74
67	Report from the International Permafrost Association: state of permafrost in the first decade of the 21st century. <i>Permafrost and Periglacial Processes</i> , 2008 , 19, 255-260	4.2	72
66	The new database of the Global Terrestrial Network for Permafrost (GTN-P). <i>Earth System Science Data</i> , 2015 , 7, 245-259	10.5	70
65	Freezing of the Active Layer on the Coastal Plain of the Alaskan Arctic. <i>Permafrost and Periglacial Processes</i> , 1997 , 8, 23-44	4.2	67
64	Thermokarst rates intensify due to climate change and forest fragmentation in an Alaskan boreal forest lowland. <i>Global Change Biology</i> , 2016 , 22, 816-29	11.4	58
63	Difference between near-surface air, land surface and ground surface temperatures and their influences on the frozen ground on the Qinghai-Tibet Plateau. <i>Geoderma</i> , 2018 , 312, 74-85	6.7	57

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62	Modeling the role of preferential snow accumulation in through talik development and hillslope groundwater flow in a transitional permafrost landscape. <i>Environmental Research Letters</i> , 2018 , 13, 105	006	54	
61	Characteristics of Changing Permafrost Temperatures in the Alaskan Arctic, U.S.A <i>Arctic and Alpine Research</i> , 1996 , 28, 267		53	
60	Threshold sensitivity of shallow Arctic lakes and sublake permafrost to changing winter climate. <i>Geophysical Research Letters</i> , 2016 , 43, 6358-6365	4.9	50	
59	Using field observations to inform thermal hydrology models of permafrost dynamics with ATS (v0.83). <i>Geoscientific Model Development</i> , 2015 , 8, 2701-2722	6.3	44	
58	Applicability of the ecosystem type approach to model permafrost dynamics across the Alaska North Slope. <i>Journal of Geophysical Research F: Earth Surface</i> , 2017 , 122, 50-75	3.8	43	
57	Simulating soil freeze/thaw dynamics with an improved pan-Arctic water balance model. <i>Journal of Advances in Modeling Earth Systems</i> , 2013 , 5, 659-675	7.1	37	
56	Large CO2 and CH4 emissions from polygonal tundra during spring thaw in northern Alaska. <i>Geophysical Research Letters</i> , 2017 , 44, 504-513	4.9	36	
55	Detecting the permafrost carbon feedback: talik formation and increased cold-season respiration as precursors to sink-to-source transitions. <i>Cryosphere</i> , 2018 , 12, 123-144	5.5	36	
54	Evidence for a cyclic variation of permafrost temperatures in northern alaska. <i>Permafrost and Periglacial Processes</i> , 1994 , 5, 137-144	4.2	35	
53	The n-factor of nonsorted circles along a climate gradient in Arctic Alaska. <i>Permafrost and Periglacial Processes</i> , 2006 , 17, 279-289	4.2	33	
52	Elevation-dependent thermal regime and dynamics of frozen ground in the Bayan Har Mountains, northeastern Qinghai-Tibet Plateau, southwest China. <i>Permafrost and Periglacial Processes</i> , 2018 , 29, 257-270	4.2	33	
51	LGM permafrost distribution: how well can the latest PMIP multi-model ensembles perform reconstruction?. <i>Climate of the Past</i> , 2013 , 9, 1697-1714	3.9	32	
50	Coincident aboveground and belowground autonomous monitoring to quantify covariability in permafrost, soil, and vegetation properties in Arctic tundra. <i>Journal of Geophysical Research G: Biogeosciences</i> , 2017 , 122, 1321-1342	3.7	31	
49	Circumpolar permafrost maps and geohazard indices for near-future infrastructure risk assessments. <i>Scientific Data</i> , 2019 , 6, 190037	8.2	31	
48	Characteristics of Water-Heat Exchanges and Inconsistent Surface Temperature Changes at an Elevational Permafrost Site on the Qinghai-Tibet Plateau. <i>Journal of Geophysical Research D: Atmospheres</i> , 2018 , 123, 10,057	4.4	30	
47	Permafrost degradation risk zone assessment using simulation models. <i>Cryosphere</i> , 2011 , 5, 1043-1056	5.5	30	
46	Geoelectric observations of the degradation of nearshore submarine permafrost at Barrow (Alaskan Beaufort Sea). <i>Journal of Geophysical Research</i> , 2012 , 117, n/a-n/a		29	
45	Remote sensing and field-based mapping of permafrost distribution along the Alaska Highway corridor, interior Alaska. <i>Permafrost and Periglacial Processes</i> , 2010 , 21, 271-281	4.2	29	

44	Using in-situ temperature measurements to estimate saturated soil thermal properties by solving a sequence of optimization problems. <i>Cryosphere</i> , 2007 , 1, 41-58	5.5	29
43	Factors Contributing to Anthrax Outbreaks in the Circumpolar North. <i>EcoHealth</i> , 2020 , 17, 174-180	3.1	29
42	Modeling the spatiotemporal variability in subsurface thermal regimes across a low-relief polygonal tundra landscape. <i>Cryosphere</i> , 2016 , 10, 2241-2274	5.5	28
41	Presence of rapidly degrading permafrost plateaus in south-central Alaska. <i>Cryosphere</i> , 2016 , 10, 2673	-263-2	27
40	Global Terrestrial Network for Permafrost (GTNet-P): permafrost monitoring contributing to global climate observations 2000 ,		26
39	Effect of soil property uncertainties on permafrost thaw projections: a calibration-constrained analysis. <i>Cryosphere</i> , 2016 , 10, 341-358	5.5	25
38	Scaling-up permafrost thermal measurements in western Alaska using an ecotype approach. <i>Cryosphere</i> , 2016 , 10, 2517-2532	5.5	24
37	Continuously amplified warming in the Alaskan Arctic: Implications for estimating global warming hiatus. <i>Geophysical Research Letters</i> , 2017 , 44, 9029-9038	4.9	23
36	Changes in precipitation and air temperature contribute comparably to permafrost degradation in a warmer climate. <i>Environmental Research Letters</i> , 2021 , 16, 024008	6.2	19
35	Modeling Long-Term Permafrost Degradation. <i>Journal of Geophysical Research F: Earth Surface</i> , 2018 , 123, 1756-1771	3.8	19
34	Isotopic identification of soil and permafrost nitrate sources in an Arctic tundra ecosystem. <i>Journal of Geophysical Research G: Biogeosciences</i> , 2015 , 120, 1000-1017	3.7	18
33	Influence of the physical terrestrial Arctic in the eco-climate system 2013 , 23, 1778-97		16
32	The changing thermal state of permafrost. <i>Nature Reviews Earth & Environment</i> , 2022 , 3, 10-23	30.2	16
31	A synthesis dataset of permafrost-affected soil thermal conditions for Alaska, USA. <i>Earth System Science Data</i> , 2018 , 10, 2311-2328	10.5	14
30	Impacts of microtopographic snow redistribution and lateral subsurface processes on hydrologic and thermal states in an Arctic polygonal ground ecosystem: a case study using ELM-3D v1.0. <i>Geoscientific Model Development</i> , 2018 , 11, 61-76	6.3	13
29	Evaluation of LPM permafrost distribution in NE Asia reconstructed and downscaled from GCM simulations. <i>Boreas</i> , 2014 , 43, 733-749	2.4	12
28	Thermally-Conditioned Paleo-Permafrost Variations from Global Climate Modeling. <i>Scientific Online Letters on the Atmosphere</i> , 2009 , 5, 101-104	2.1	11
27	Consequences of permafrost degradation for Arctic infrastructure Ibridging the model gap between regional and engineering scales. <i>Cryosphere</i> , 2021 , 15, 2451-2471	5.5	11

(2021-2016)

26	Late Quaternary Permafrost Distributions Downscaled for South America: Examinations of GCM-based Maps with Observations. <i>Permafrost and Periglacial Processes</i> , 2016 , 27, 43-55	4.2	10
25	A distributed temperature profiling method for assessing spatial variability in ground temperatures in a discontinuous permafrost region of Alaska. <i>Cryosphere</i> , 2019 , 13, 2853-2867	5.5	10
24	Degrading permafrost and its impacts. Advances in Climate Change Research, 2021, 12, 1-5	4.1	9
23	Prevention and control measures for coastal erosion in northern high-latitude communities: a systematic review based on Alaskan case studies. <i>Environmental Research Letters</i> , 2020 , 15, 093002	6.2	8
22	Modeling Present and Future Permafrost Distribution at the Seward Peninsula, Alaska. <i>Journal of Geophysical Research F: Earth Surface</i> , 2020 , 125, e2019JF005355	3.8	6
21	Using Ground Penetrating Radar for Permafrost Monitoring from 2015\(\textit{0017}\) at CALM Sites in the Pechora River Delta. <i>Remote Sensing</i> , 2021 , 13, 3271	5	6
20	Landsat-based lake distribution and changes in western Alaska permafrost regions between the 1970s and 2010s. <i>Environmental Research Letters</i> , 2021 , 16, 025006	6.2	6
19	Using field observations to inform thermal hydrology models of permafrost dynamics with ATS (v0.83) 2015 ,		5
18	Modelling the impacts of projected sea ice decline on the low atmosphere and near-surface permafrost on the North Slope of Alaska. <i>International Journal of Climatology</i> , 2018 , 38, 5491-5504	3.5	5
17	35 Years of Vegetation and Lake Dynamics in the Pechora Catchment, Russian European Arctic. <i>Remote Sensing</i> , 2020 , 12, 1863	5	4
16	Effect of soil property uncertainties on permafrost thaw projections: a calibration-constrained analysis		4
15	Geophysical Observations of Taliks Below Drained Lake Basins on the Arctic Coastal Plain of Alaska. Journal of Geophysical Research: Solid Earth, 2021 , 126, e2020JB020889	3.6	4
14	The Global Terrestrial Network for Permafrost Database: metadata statistics and prospective analysis on future permafrost temperature and active layer depth monitoring site distribution		3
13	Projecting Permafrost Thaw of Sub-Arctic Tundra With a Thermodynamic Model Calibrated to Site Measurements. <i>Journal of Geophysical Research G: Biogeosciences</i> , 2021 , 126, e2020JG006218	3.7	3
12	Co-producing knowledge: the Integrated Ecosystem Model for resource management in Arctic Alaska. <i>Frontiers in Ecology and the Environment</i> , 2020 , 18, 447-455	5.5	2
11	Consequences of permafrost degradation for Arctic infrastructure (bridging the model gap between regional and engineering scales		2
10	Attribution of historical near-surface permafrost degradation to anthropogenic greenhouse gas warming. <i>Environmental Research Letters</i> , 2020 , 15, 084040	6.2	2
9	Tundra Underlain By Thawing Permafrost Persistently Emits Carbon to the Atmosphere Over 15 Years of Measurements. <i>Journal of Geophysical Research G: Biogeosciences</i> , 2021 , 126, e2020JG006044	3.7	2

8	LGM permafrost distribution: how well can the latest PMIP multi-model ensembles reconstruct?		1
7	Reply to the comment: Northern Hemisphere permafrost extent: Drylands, glaciers and sea floor. <i>Earth-Science Reviews</i> , 2020 , 203, 103036	10.2	1
6	Scientific Cooperation: Supporting Circumpolar Permafrost Monitoring and Data Sharing. <i>Land</i> , 2021 , 10, 590	3.5	1
5	Report from the International Permafrost Association. <i>Permafrost and Periglacial Processes</i> , 2016 , 27, 316-319	4.2	1
4	Water balance response of permafrost-affected watersheds to changes in air temperatures. <i>Environmental Research Letters</i> , 2021 , 16, 084054	6.2	0
3	Understanding Effects of Permafrost Degradation and Coastal Erosion on Civil Infrastructure in Arctic Coastal Villages: A Community Survey and Knowledge Co-Production. <i>Journal of Marine Science and Engineering</i> , 2022 , 10, 422	2.4	Ο
2	Spatial and Temporal Variability of Permafrost in the Western Part of the Russian Arctic. <i>Energies</i> , 2022 , 15, 2311	3.1	0
1	Synthesis of physical processes of permafrost degradation and geophysical and geomechanical properties of permafrost. <i>Cold Regions Science and Technology</i> , 2022 , 198, 103522	3.8	Ο