

Vladimir E Romanovsky

List of Publications by Year in descending order

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111
papers

20,495
citations

25031

57
h-index

23530

111
g-index

134
all docs

134
docs citations

134
times ranked

12092
citing authors

#	ARTICLE	IF	CITATIONS
1	Climate change and the permafrost carbon feedback. <i>Nature</i> , 2015, 520, 171-179.	27.8	2,369
2	Observational Evidence of Recent Change in the Northern High-Latitude Environment. <i>Climatic Change</i> , 2000, 46, 159-207.	3.6	1,690
3	Vulnerability of Permafrost Carbon to Climate Change: Implications for the Global Carbon Cycle. <i>BioScience</i> , 2008, 58, 701-714.	4.9	1,379
4	Evidence and Implications of Recent Climate Change in Northern Alaska and Other Arctic Regions. <i>Climatic Change</i> , 2005, 72, 251-298.	3.6	1,219
5	Permafrost is warming at a global scale. <i>Nature Communications</i> , 2019, 10, 264.	12.8	1,039
6	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.	3.4	625
7	Pan-Arctic ice-wedge degradation in warming permafrost and its influence on tundra hydrology. <i>Nature Geoscience</i> , 2016, 9, 312-318.	12.9	527
8	Key indicators of Arctic climate change: 1971–2017. <i>Environmental Research Letters</i> , 2019, 14, 045010.	5.2	471
9	Evidence for warming and thawing of discontinuous permafrost in Alaska. <i>Permafrost and Periglacial Processes</i> , 1999, 10, 17-37.	3.4	469
10	Northern Hemisphere permafrost map based on TTOP modelling for 2000–2016 at 1-km ² scale. <i>Earth-Science Reviews</i> , 2019, 193, 299-316.	9.1	462
11	Resilience and vulnerability of permafrost to climate change This 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, 1219-1236.	1.7	435
12	Thermal state of permafrost in Russia. <i>Permafrost and Periglacial Processes</i> , 2010, 21, 136-155.	3.4	383
13	Circumpolar distribution and carbon storage of thermokarst landscapes. <i>Nature Communications</i> , 2016, 7, 13043.	12.8	343
14	Effects of unfrozen water on heat and mass transport processes in the active layer and permafrost. <i>Permafrost and Periglacial Processes</i> , 2000, 11, 219-239.	3.4	338
15	Vulnerability of high-latitude soil organic carbon in North America to disturbance. <i>Journal of Geophysical Research</i> , 2011, 116, .	3.3	337
16	Degrading permafrost puts Arctic infrastructure at risk by mid-century. <i>Nature Communications</i> , 2018, 9, 5147.	12.8	327
17	Fire, climate change, and forest resilience in interior Alaska This 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.	1.7	306
18	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.	7.1	296

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19	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.	9.5	292
20	The impact of the permafrost carbon feedback on global climate. <i>Environmental Research Letters</i> , 2014, 9, 085003.	5.2	279
21	Expert assessment of vulnerability of permafrost carbon to climate change. <i>Climatic Change</i> , 2013, 119, 359-374.	3.6	257
22	Modern thermokarst lake dynamics in the continuous permafrost zone, northern Seward Peninsula, Alaska. <i>Journal of Geophysical Research</i> , 2011, 116, .	3.3	250
23	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, .	3.3	239
24	The role of snow cover in the warming of arctic permafrost. <i>Geophysical Research Letters</i> , 2003, 30, .	4.0	236
25	Deep Yedoma permafrost: A synthesis of depositional characteristics and carbon vulnerability. <i>Earth-Science Reviews</i> , 2017, 172, 75-86.	9.1	236
26	Impacts of wildfire on the permafrost in the boreal forests of Interior Alaska. <i>Journal of Geophysical Research</i> , 2003, 108, FFR 4-1.	3.3	231
27	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.	3.4	200
28	Thawing of the Active Layer on the Coastal Plain of the Alaskan Arctic. <i>Permafrost and Periglacial Processes</i> , 1997, 8, 1-22.	3.4	196
29	Improved modeling of permafrost dynamics in a GCM land-surface scheme. <i>Geophysical Research Letters</i> , 2007, 34, .	4.0	179
30	Global Climate Model Performance over Alaska and Greenland. <i>Journal of Climate</i> , 2008, 21, 6156-6174.	3.2	179
31	Remote sensing quantifies widespread abundance of permafrost region disturbances across the Arctic and Subarctic. <i>Nature Communications</i> , 2018, 9, 5423.	12.8	179
32	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.	4.0	168
33	Numerical modeling of permafrost dynamics in Alaska using a high spatial resolution dataset. <i>Cryosphere</i> , 2012, 6, 613-624.	3.9	167
34	Permafrost temperature records: Indicators of climate change. <i>Eos</i> , 2002, 83, 589.	0.1	161
35	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.	3.4	159
36	Cumulative geoecological effects of 62 years of infrastructure and climate change in ice-rich permafrost landscapes, Prudhoe Bay Oilfield, Alaska. <i>Global Change Biology</i> , 2014, 20, 1211-1224.	9.5	154

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37	A simplified, data-constrained approach to estimate the permafrost carbonâ€“climate feedback. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2015, 373, 20140423.	3.4	149
38	The Effect of Moisture Content on the Thermal Conductivity of Moss and Organic Soil Horizons From Black Spruce Ecosystems in Interior Alaska. Soil Science, 2009, 174, 646-651.	0.9	143
39	Changing permafrost in a warming world and feedbacks to the Earth system. Environmental Research Letters, 2016, 11, 040201.	5.2	143
40	Decadal variations of activeâ€“layer thickness in moistureâ€“controlled landscapes, Barrow, Alaska. Journal of Geophysical Research, 2010, 115, .	3.3	138
41	The changing thermal state of permafrost. Nature Reviews Earth & Environment, 2022, 3, 10-23.	29.7	127
42	Vulnerability and Feedbacks of Permafrost to Climate Change. Eos, 2011, 92, 73-74.	0.1	121
43	Variability in the sensitivity among model simulations of permafrost and carbon dynamics in the permafrost region between 1960 and 2009. Global Biogeochemical Cycles, 2016, 30, 1015-1037.	4.9	116
44	An evaluation of deep soil configurations in the CLM3 for improved representation of permafrost. Geophysical Research Letters, 2007, 34, .	4.0	114
45	A model for regional-scale estimation of temporal and spatial variability of active layer thickness and mean annual ground temperatures. Permafrost and Periglacial Processes, 2003, 14, 125-139.	3.4	108
46	Long-Term Release of Carbon Dioxide from Arctic Tundra Ecosystems in Alaska. Ecosystems, 2017, 20, 960-974.	3.4	102
47	Difference between near-surface air, land surface and ground surface temperatures and their influences on the frozen ground on the Qinghai-Tibet Plateau. Geoderma, 2018, 312, 74-85.	5.1	102
48	Cryogenesis and soil formation along a bioclimate gradient in Arctic North America. Journal of Geophysical Research, 2008, 113, .	3.3	101
49	The new database of the Global Terrestrial Network for Permafrost (GTN-P). Earth System Science Data, 2015, 7, 245-259.	9.9	97
50	Arctic patternedâ€“ground ecosystems: A synthesis of field studies and models along a North American Arctic Transect. Journal of Geophysical Research, 2008, 113, .	3.3	96
51	Freezing of the Active Layer on the Coastal Plain of the Alaskan Arctic. Permafrost and Periglacial Processes, 1997, 8, 23-44.	3.4	93
52	Modeling the role of preferential snow accumulation in through talik development and hillslope groundwater flow in a transitional permafrost landscape. Environmental Research Letters, 2018, 13, 105006.	5.2	90
53	Report from the International Permafrost Association: state of permafrost in the first decade of the 21 st century. Permafrost and Periglacial Processes, 2008, 19, 255-260.	3.4	88
54	High-resolution mapping of ecosystem carbon storage and potential effects of permafrost thaw in periglacial terrain, European Russian Arctic. Journal of Geophysical Research, 2011, 116, .	3.3	88

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55	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.	2.8	72
56	Thermokarst rates intensify due to climate change and forest fragmentation in an Alaskan boreal forest lowland. <i>Global Change Biology</i> , 2016, 22, 816-829.	9.5	69
57	Threshold sensitivity of shallow Arctic lakes and sublake permafrost to changing winter climate. <i>Geophysical Research Letters</i> , 2016, 43, 6358-6365.	4.0	68
58	Characteristics of Changing Permafrost Temperatures in the Alaskan Arctic, U.S.A.. <i>Arctic and Alpine Research</i> , 1996, 28, 267.	1.3	58
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.	3.6	56
60	Elevationâ€dependent thermal regime and dynamics of frozen ground in the Bayan Har Mountains, northeastern Qinghaiâ€Tibet Plateau, southwest China. <i>Permafrost and Periglacial Processes</i> , 2018, 29, 257-270.	3.4	54
61	Large CO ₂ and CH ₄ emissions from polygonal tundra during spring thaw in northern Alaska. <i>Geophysical Research Letters</i> , 2017, 44, 504-513.	4.0	53
62	Changes in precipitation and air temperature contribute comparably to permafrost degradation in a warmer climate. <i>Environmental Research Letters</i> , 2021, 16, 024008.	5.2	52
63	Characteristics of Waterâ€Heat Exchanges and Inconsistent Surface Temperature Changes at an Elevational Permafrost Site on the Qinghaiâ€Tibet Plateau. <i>Journal of Geophysical Research D: Atmospheres</i> , 2018, 123, 10,057.	3.3	51
64	Circumpolar permafrost maps and geohazard indices for near-future infrastructure risk assessments. <i>Scientific Data</i> , 2019, 6, 190037.	5.3	51
65	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.	3.9	46
66	Factors Contributing to Anthrax Outbreaks in the Circumpolar North. <i>EcoHealth</i> , 2020, 17, 174-180.	2.0	46
67	Simulating soil freeze/thaw dynamics with an improved panâ€Arctic water balance model. <i>Journal of Advances in Modeling Earth Systems</i> , 2013, 5, 659-675.	3.8	45
68	Permafrost degradation risk zone assessment using simulation models. <i>Cryosphere</i> , 2011, 5, 1043-1056.	3.9	43
69	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.	3.0	42
70	Consequences of permafrost degradation for Arctic infrastructure â€ bridging the model gap between regional and engineering scales. <i>Cryosphere</i> , 2021, 15, 2451-2471.	3.9	42
71	Evidence for a cyclic variation of permafrost temperatures in northern Alaska. <i>Permafrost and Periglacial Processes</i> , 1994, 5, 137-144.	3.4	41
72	The n-factor of nonsorted circles along a climate gradient in Arctic Alaska. <i>Permafrost and Periglacial Processes</i> , 2006, 17, 279-289.	3.4	39

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73	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.	3.9	39
74	Scaling-up permafrost thermal measurements in western Alaska using an ecotype approach. <i>Cryosphere</i> , 2016, 10, 2517-2532.	3.9	38
75	Geoelectric observations of the degradation of nearshore submarine permafrost at Barrow (Alaskan) Tj ETQq1 1 0.784314 rgBT /Over 3.3 37	3.3	37
76	Continuously amplified warming in the Alaskan Arctic: Implications for estimating global warming hiatus. <i>Geophysical Research Letters</i> , 2017, 44, 9029-9038.	4.0	36
77	LGM permafrost distribution: how well can the latest PMIP multi-model ensembles perform reconstruction?. <i>Climate of the Past</i> , 2013, 9, 1697-1714.	3.4	35
78	Presence of rapidly degrading permafrost plateaus in south-central Alaska. <i>Cryosphere</i> , 2016, 10, 2673-2692.	3.9	34
79	Degrading permafrost and its impacts. <i>Advances in Climate Change Research</i> , 2021, 12, 1-5.	5.1	34
80	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.	3.4	33
81	Effect of soil property uncertainties on permafrost thaw projections: a calibration-constrained analysis. <i>Cryosphere</i> , 2016, 10, 341-358.	3.9	33
82	Modeling Long-Term Permafrost Degradation. <i>Journal of Geophysical Research F: Earth Surface</i> , 2018, 123, 1756-1771.	2.8	32
83	Modeling the spatiotemporal variability in subsurface thermal regimes across a low-relief polygonal tundra landscape. <i>Cryosphere</i> , 2016, 10, 2241-2274.	3.9	29
84	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.	3.9	27
85	Sub-aerial talik formation observed across the discontinuous permafrost zone of Alaska. <i>Nature Geoscience</i> , 2022, 15, 475-481.	12.9	23
86	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.	3.0	22
87	Influence of the physical terrestrial Arctic in the eco-climate system. <i>Ecological Applications</i> , 2013, 23, 1778-1797.	3.8	20
88	Evaluation of LPM permafrost distribution in NE Asia reconstructed and downscaled from GCM simulations. <i>Boreas</i> , 2014, 43, 733-749.	2.4	19
89	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, e2020JC006044.	3.0	19
90	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.	5.2	18

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91	A synthesis dataset of permafrost-affected soil thermal conditions for Alaska, USA. <i>Earth System Science Data</i> , 2018, 10, 2311-2328.	9.9	18
92	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.	3.6	17
93	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.	3.4	15
94	Landsat-based lake distribution and changes in western Alaska permafrost regions between the 1970s and 2010s. <i>Environmental Research Letters</i> , 2021, 16, 025006.	5.2	15
95	Modeling Present and Future Permafrost Distribution at the Seward Peninsula, Alaska. <i>Journal of Geophysical Research F: Earth Surface</i> , 2020, 125, e2019JF005355.	2.8	12
96	Using Ground Penetrating Radar for Permafrost Monitoring from 2015–2017 at CALM Sites in the Pechora River Delta. <i>Remote Sensing</i> , 2021, 13, 3271.	4.0	12
97	The shifting mosaic of ice-wedge degradation and stabilization in response to infrastructure and climate change, Prudhoe Bay Oilfield, Alaska, USA. <i>Arctic Science</i> , 2022, 8, 498-530.	2.3	12
98	Thermally-Conditioned Paleo-Permafrost Variations from Global Climate Modeling. <i>Scientific Online Letters on the Atmosphere</i> , 2009, 5, 101-104.	1.4	11
99	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.	3.0	11
100	Geophysical Observations of Taliks Below Drained Lake Basins on the Arctic Coastal Plain of Alaska. <i>Journal of Geophysical Research: Solid Earth</i> , 2021, 126, e2020JB020889.	3.4	9
101	Attribution of historical near-surface permafrost degradation to anthropogenic greenhouse gas warming. <i>Environmental Research Letters</i> , 2020, 15, 084040.	5.2	9
102	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.	2.6	9
103	Synthesis of physical processes of permafrost degradation and geophysical and geomechanical properties of permafrost. <i>Cold Regions Science and Technology</i> , 2022, 198, 103522.	3.5	8
104	35 Years of Vegetation and Lake Dynamics in the Pechora Catchment, Russian European Arctic. <i>Remote Sensing</i> , 2020, 12, 1863.	4.0	6
105	Water balance response of permafrost-affected watersheds to changes in air temperatures. <i>Environmental Research Letters</i> , 2021, 16, 084054.	5.2	6
106	Spatial and Temporal Variability of Permafrost in the Western Part of the Russian Arctic. <i>Energies</i> , 2022, 15, 2311.	3.1	6
107	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
108	Scientific Cooperation: Supporting Circumpolar Permafrost Monitoring and Data Sharing. <i>Land</i> , 2021, 10, 590.	2.9	5

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109	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.	4.0	3
110	Report from the International Permafrost Association. <i>Permafrost and Periglacial Processes</i> , 2016, 27, 316-319.	3.4	1
111	Reply to the comment: Northern Hemisphere permafrost extent: Drylands, glaciers and sea floor. <i>Earth-Science Reviews</i> , 2020, 203, 103036.	9.1	1