

Stephan Gruber

List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/2911791/publications.pdf>

Version: 2024-02-01

78
papers

5,861
citations

101384

36
h-index

85405

71
g-index

115
all docs

115
docs citations

115
times ranked

4082
citing authors

#	ARTICLE	IF	CITATIONS
1	Landslide Hazards and Climate Change in High Mountains. , 2022, , 798-814.		2
2	Ice loss from glaciers and permafrost and related slope instability in high-mountain regions. , 2021, , 501-540.		26
3	When do rock glacier fronts fail? Insights from two case studies in South Tyrol (Italian Alps). Earth Surface Processes and Landforms, 2021, 46, 1311-1327.	1.2	18
4	Best Practice for Measuring Permafrost Temperature in Boreholes Based on the Experience in the Swiss Alps. Frontiers in Earth Science, 2021, 9, .	0.8	18
5	The surface energy balance in a cold and arid permafrost environment, Ladakh, Himalayas, India. Cryosphere, 2021, 15, 2273-2293.	1.5	7
6	A method for solving heat transfer with phase change in ice or soil that allows for large time steps while guaranteeing energy conservation. Cryosphere, 2021, 15, 2541-2568.	1.5	13
7	Single-year thermal regime and inferred permafrost occurrence in the upper Gangtong catchment of the cold-arid Himalaya, Ladakh, India. Science of the Total Environment, 2020, 703, 134631.	3.9	18
8	Ground subsidence and heave over permafrost: hourly time series reveal interannual, seasonal and shorter-term movement caused by freezing, thawing and water movement. Cryosphere, 2020, 14, 1437-1447.	1.5	28
9	The Canadian Water Resource Vulnerability Index to Permafrost Thaw (CWRVI _{PT}). Arctic Science, 2020, 6, 437-462.	0.9	13
10	The ERA5-Land soil temperature bias in permafrost regions. Cryosphere, 2020, 14, 2581-2595.	1.5	85
11	Ground ice, organic carbon and soluble cations in tundra permafrost soils and sediments near a Laurentide ice divide in the Slave Geological Province, Northwest Territories, Canada. Cryosphere, 2020, 14, 4341-4364.	1.5	3
12	Improving permafrost physics in the coupled Canadian Land Surface Scheme (v.3.6.2) and Canadian Terrestrial Ecosystem Model (v.2.1) (CLASS-CTEM). Geoscientific Model Development, 2019, 12, 4443-4467.	1.3	30
13	GlobSim (v1.0): deriving meteorological time series for point locations from multiple global reanalyses. Geoscientific Model Development, 2019, 12, 4661-4679.	1.3	13
14	Status and Change of the Cryosphere in the Extended Hindu Kush Himalaya Region. , 2019, , 209-255.		139
15	A decade of detailed observations (2008â€“2018) in steep bedrock permafrost at the Matterhorn Hörnli Grat (Zermatt, CH). Earth System Science Data, 2019, 11, 1203-1237.	3.7	28
16	Mechanisms linking active rock glaciers and impounded surface water formation in highâ€mountain areas. Earth Surface Processes and Landforms, 2018, 43, 417-431.	1.2	23
17	Review: Impacts of permafrost degradation on inorganic chemistry of surface fresh water. Global and Planetary Change, 2018, 162, 69-83.	1.6	91
18	Timing of rockfalls in the Mont Blanc massif (Western Alps): evidence from surface exposure dating with cosmogenic ¹⁰ Be. Landslides, 2018, 15, 1991-2000.	2.7	24

#	ARTICLE	IF	CITATIONS
19	Ambient seismic vibrations in steep bedrock permafrost used to infer variations of ice-fill in fractures. <i>Earth and Planetary Science Letters</i> , 2018, 501, 119-127.	1.8	28
20	Rainfall as primary driver of discharge and solute export from rock glaciers: The Col d'Olen Rock Glacier in the NW Italian Alps. <i>Science of the Total Environment</i> , 2018, 639, 316-330.	3.9	29
21	Spatial variability of active layer thickness detected by ground-penetrating radar in the Qilian Mountains, Western China. <i>Journal of Geophysical Research F: Earth Surface</i> , 2017, 122, 574-591.	1.0	52
22	REDCAPP (v1.0): parameterizing valley inversions in air temperature data downscaled from reanalyses. <i>Geoscientific Model Development</i> , 2017, 10, 2905-2923.	1.3	24
23	Review article: Inferring permafrost and permafrost thaw in the mountains of the Hindu Kush Himalaya region. <i>Cryosphere</i> , 2017, 11, 81-99.	1.5	98
24	Short-term velocity variations at three rock glaciers and their relationship with meteorological conditions. <i>Earth Surface Dynamics</i> , 2016, 4, 103-123.	1.0	67
25	Temporal variability of diverse mountain permafrost slope movements derived from multi-year daily GPS data, Mattertal, Switzerland. <i>Landslides</i> , 2016, 13, 67-83.	2.7	25
26	Modelling transient ground surface temperatures of past rockfall events: towards a better understanding of failure mechanisms in changing periglacial environments. <i>Geografiska Annaler, Series A: Physical Geography</i> , 2015, 97, 753-767.	0.6	22
27	Assessment of permafrost distribution maps in the Hindu Kush Himalayan region using rock glaciers mapped in Google Earth. <i>Cryosphere</i> , 2015, 9, 2089-2099.	1.5	96
28	Large-area land surface simulations in heterogeneous terrain driven by global data sets: application to mountain permafrost. <i>Cryosphere</i> , 2015, 9, 411-426.	1.5	43
29	Ice Loss and Slope Stability in High-Mountain Regions. , 2015, , 521-561.		91
30	The influence of surface characteristics, topography and continentality on mountain permafrost in British Columbia. <i>Cryosphere</i> , 2015, 9, 1025-1038.	1.5	36
31	Estimating velocity from noisy GPS data for investigating the temporal variability of slope movements. <i>Natural Hazards and Earth System Sciences</i> , 2014, 14, 2503-2520.	1.5	19
32	GEOtop 2.0: simulating the combined energy and water balance at and below the land surface accounting for soil freezing, snow cover and terrain effects. <i>Geoscientific Model Development</i> , 2014, 7, 2831-2857.	1.3	134
33	TopoSCALE v.1.0: downscaling gridded climate data in complex terrain. <i>Geoscientific Model Development</i> , 2014, 7, 387-405.	1.3	97
34	Sensitivities and uncertainties of modeled ground temperatures in mountain environments. <i>Geoscientific Model Development</i> , 2013, 6, 1319-1336.	1.3	50
35	Environmental controls of frost cracking revealed through in situ acoustic emission measurements in steep bedrock. <i>Geophysical Research Letters</i> , 2013, 40, 1748-1753.	1.5	103
36	Landsides in Cold Regions: Making a Science that can be put into Practice. , 2013, , 329-333.		3

#	ARTICLE	IF	CITATIONS
37	Permafrost distribution in the European Alps: calculation and evaluation of an index map and summary statistics. <i>Cryosphere</i> , 2012, 6, 807-820.	1.5	203
38	Derivation and analysis of a high-resolution estimate of global permafrost zonation. <i>Cryosphere</i> , 2012, 6, 221-233.	1.5	444
39	Inferring snowpack ripening and melt-out from distributed measurements of near-surface ground temperatures. <i>Cryosphere</i> , 2012, 6, 1127-1139.	1.5	61
40	A statistical approach to modelling permafrost distribution in the European Alps or similar mountain ranges. <i>Cryosphere</i> , 2012, 6, 125-140.	1.5	115
41	TopoSUB: a tool for efficient large area numerical modelling in complex topography at sub-grid scales. <i>Geoscientific Model Development</i> , 2012, 5, 1245-1257.	1.3	40
42	Uncertainties of parameterized surface downward clear-sky shortwave and all-sky longwave radiation.. <i>Atmospheric Chemistry and Physics</i> , 2012, 12, 5077-5098.	1.9	43
43	Evidence of frost-cracking inferred from acoustic emissions in a high-alpine rock-wall. <i>Earth and Planetary Science Letters</i> , 2012, 341-344, 86-93.	1.8	75
44	Kinematics of steep bedrock permafrost. <i>Journal of Geophysical Research</i> , 2012, 117, .	3.3	88
45	A custom acoustic emission monitoring system for harsh environments: application to freezing-induced damage in alpine rock walls. <i>Geoscientific Instrumentation, Methods and Data Systems</i> , 2012, 1, 155-167.	0.6	20
46	Preface: the mountain cryosphere â€“ a holistic view on processes and their interactions. <i>Geografiska Annaler, Series A: Physical Geography</i> , 2012, 94, 177-182.	0.6	3
47	Advective Heat Transport in Frozen Rock Clefts: Conceptual Model, Laboratory Experiments and Numerical Simulation. <i>Permafrost and Periglacial Processes</i> , 2011, 22, 378-389.	1.5	72
48	A robust and energy-conserving model of freezing variably-saturated soil. <i>Cryosphere</i> , 2011, 5, 469-484.	1.5	177
49	Spatio-temporal measurements and analysis of snow depth in a rock face. <i>Cryosphere</i> , 2011, 5, 893-905.	1.5	38
50	Brief Communication: "An inventory of permafrost evidence for the European Alps". <i>Cryosphere</i> , 2011, 5, 651-657.	1.5	52
51	Scale-dependent measurement and analysis of ground surface temperature variability in alpine terrain. <i>Cryosphere</i> , 2011, 5, 431-443.	1.5	129
52	Temperature variability and offset in steep alpine rock and ice faces. <i>Cryosphere</i> , 2011, 5, 977-988.	1.5	89
53	Rock falls in the Mont Blanc Massif in 2007 and 2008. <i>Landslides</i> , 2010, 7, 493-501.	2.7	108
54	<i>Assist</i>., 2010, , .		11

#	ARTICLE	IF	CITATIONS
55	Mountain permafrost: development and challenges of a young research field. <i>Journal of Glaciology</i> , 2010, 56, 1043-1058.	1.1	147
56	Modellierung und Messung von Permafrosttemperaturen im Gipfelgrat der Zugspitze, Deutschland. <i>Geographica Helvetica</i> , 2010, 65, 113-123.	0.4	16
57	Transient thermal effects in Alpine permafrost. <i>Cryosphere</i> , 2009, 3, 85-99.	1.5	127
58	Chapter 7 Land-Surface Parameters and Objects in Hydrology. <i>Developments in Soil Science</i> , 2009, 33, 171-194.	0.5	65
59	Permafrost and climate in Europe: Monitoring and modelling thermal, geomorphological and geotechnical responses. <i>Earth-Science Reviews</i> , 2009, 92, 117-171.	4.0	499
60	Drilling and installation of boreholes for permafrost thermal monitoring on Livingston Island in the maritime Antarctic. <i>Permafrost and Periglacial Processes</i> , 2009, 20, 57-64.	1.5	21
61	Exploring steep bedrock permafrost and its relationship with recent slope failures in the Southern Alps of New Zealand. <i>Permafrost and Periglacial Processes</i> , 2009, 20, 345-356.	1.5	88
62	Global Warming and Mountain Permafrost. <i>Soil Biology</i> , 2009, , 205-218.	0.6	23
63	Mountain Permafrost. <i>Soil Biology</i> , 2009, , 33-44.	0.6	42
64	Recent advances in permafrost modelling. <i>Permafrost and Periglacial Processes</i> , 2008, 19, 137-156.	1.5	327
65	Mountain permafrost on active volcanoes: field data and statistical mapping, Klyuchevskaya volcano group, Kamchatka, Russia. <i>Permafrost and Periglacial Processes</i> , 2008, 19, 261-277.	1.5	34
66	PermaSense. , 2007, , .		70
67	Ground surface temperature scenarios in complex high-mountain topography based on regional climate model results. <i>Journal of Geophysical Research</i> , 2007, 112, .	3.3	40
68	Geophysical identification of permafrost in Livingston Island, maritime Antarctica. <i>Journal of Geophysical Research</i> , 2007, 112, .	3.3	33
69	Three-dimensional distribution and evolution of permafrost temperatures in idealized high-mountain topography. <i>Journal of Geophysical Research</i> , 2007, 112, .	3.3	196
70	Introduction to special section: Permafrost and Seasonally Frozen Ground Under a Changing Climate. <i>Journal of Geophysical Research</i> , 2007, 112, .	3.3	16
71	Influence of different digital terrain models (DTMs) on alpine permafrost modeling. <i>Environmental Modeling and Assessment</i> , 2007, 12, 303-313.	1.2	0
72	Sampling and statistical analyses of BTS measurements. <i>Permafrost and Periglacial Processes</i> , 2005, 16, 383-393.	1.5	57

#	ARTICLE	IF	CITATIONS
73	Rock-wall temperatures in the Alps: modelling their topographic distribution and regional differences. <i>Permafrost and Periglacial Processes</i> , 2004, 15, 299-307.	1.5	135
74	Interpretation of geothermal profiles perturbed by topography: the alpine permafrost boreholes at Stockhorn Plateau, Switzerland. <i>Permafrost and Periglacial Processes</i> , 2004, 15, 349-357.	1.5	49
75	Permafrost thaw and destabilization of Alpine rock walls in the hot summer of 2003. <i>Geophysical Research Letters</i> , 2004, 31, n/a-n/a.	1.5	307
76	Permafrost distribution modelling in the mountains of the Mediterranean: Corral del Veleta, Sierra Nevada, Spain. <i>Norsk Geografisk Tidsskrift</i> , 2001, 55, 253-260.	0.3	22
77	Statistical modelling of mountain permafrost distribution: local calibration and incorporation of remotely sensed data. <i>Permafrost and Periglacial Processes</i> , 2001, 12, 69-77.	1.5	119
78	Review article: Inferring permafrost and permafrost thaw in the mountains of the Hindu Kush Himalaya region. , 0, , .		3