Christian Huggel

List of Publications by Year
in descending order

78 papers	6,118 citations	76326 40 h-index	74163 75 g-index
128 all docs	128 docs citations	128 times ranked	4776 citing authors

#	Article	IF	Citations
1	Current state of glaciers in the tropical Andes: a multi-century perspective on glacier evolution and climate change. Cryosphere, 2013, 7, 81-102.	3.9	470
2	Toward mountains without permanent snow and ice. Earth's Future, 2017, 5, 418-435.	6.3	324
3	Is climate change responsible for changing landslide activity in high mountains?. Earth Surface Processes and Landforms, 2012, 37, 77-91.	2.5	312
4	A massive rock and ice avalanche caused the 2021 disaster at Chamoli, Indian Himalaya. Science, 2021, 373, 300-306.	12.6	304
5	Climate change and the global pattern of moraine-dammed glacial lake outburst floods. Cryosphere, 2018, 12, 1195-1209.	3.9	219
6	Estimating the volume of glaciers in the Himalayanâ€“Karakoram region using different methods. Cryosphere, 2014, 8, 2313-2333.	3.9	203
7	Climate change impacts on mass movements â€" Case studies from the European Alps. Science of the Total Environment, 2014, 493, 1255-1266.	8.0	193
8	Massive collapse of two glaciers in western Tibet in 2016 after surge-like instability. Nature Geoscience, 2018, 11, 114-120.	12.9	189
9	An integrated socio-environmental framework for glacier hazard management and climate change adaptation: lessons from Lake 513, Cordillera Blanca, Peru. Climatic Change, 2012, 112, 733-767.	3.6	188
10	Glacial lakes in the Indian Himalayas â€" From an area-wide glacial lake inventory to on-site and modeling based risk assessment of critical glacial lakes. Science of the Total Environment, 2013, 468-469, S71-S84.	8.0	175
11	Lake outburst and debris flow disaster at Kedarnath, June 2013: hydrometeorological triggering and topographic predisposition. Landslides, 2016, 13, 1479-1491.	5.4	165
12	On the influence of topographic, geological and cryospheric factors on rock avalanches and rockfalls in high-mountain areas. Natural Hazards and Earth System Sciences, 2012, 12, 241-254.	3.6	152
13	Recent and future warm extreme events and high-mountain slope stability. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2010, 368, 2435-2459.	3.4	147
14	The Kolka-Karmadon rock/ice slide of 20 September 2002: an extraordinary event of historical dimensions in North Ossetia, Russian Caucasus. Journal of Glaciology, 2004, 50, 533-546.	2.2	127
15	Unraveling driving factors for large rockâ€“ice avalanche mobility. Earth Surface Processes and Landforms, 2011, 36, 1948-1966.	2.5	117
16	Mapping hazards from glacier lake outburst floods based on modelling of process cascades at Lake 513, Carhuaz, Peru. Advances in Geosciences, 0, 35, 145-155.	12.0	116
17	Numerical modeling of the Mount Steller landslide flow history and of the generated long period seismic waves. Geophysical Research Letters, 2012, 39, .	4.0	108
18	Monitoring and prediction in early warning systems for rapid mass movements. Natural Hazards and Earth System Sciences, 2015, 15, 905-917.	3.6	107

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19	Glacial lake outburst flood risk in Himachal Pradesh, India: an integrative and anticipatory approach considering current and future threats. Natural Hazards, 2016, 84, 1741-1763.	3.4	103
20	Insights into rockâ€ice avalanche dynamics by combined analysis of seismic recordings and a numerical avalanche model. Journal of Geophysical Research, 2010, 115, .	3.3	101
21	The importance of entrainment and bulking on debris flow runout modeling: examples from the Swiss Alps. Natural Hazards and Earth System Sciences, 2015, 15, 2569-2583.	3.6	98
22	Uncertainty in the Himalayan energyâ€"water nexus: estimating regional exposure to glacial lake outburst floods. Environmental Research Letters, 2016, 11, 074005.	5.2	98
23	Extremely warm temperatures as a potential cause of recent high mountain rockfall. Global and Planetary Change, 2013, 107, 59-69.	3.5	91
24	New lakes in deglaciating high-mountain regions â€" opportunities and risks. Climatic Change, 2016, 139, 201-214.	3.6	88
25	Slope failures and erosion rates on a glacierized highâ€mountain face under climatic changes. Earth Surface Processes and Landforms, 2013, 38, 836-846.	2.5	87
26	Loss and damage attribution. Nature Climate Change, 2013, 3, 694-696.	18.8	75
27	Sudden large-volume detachments of low-angle mountain glaciers â€" more frequent than thought?. Cryosphere, 2021, 15, 1751-1785.	3.9	63
28	The changing water cycle: climatic and socioeconomic drivers of waterâ€related changes in the Andes of Peru. Wiley Interdisciplinary Reviews: Water, 2015, 2, 715-733.	6.5	62
29	Reconciling justice and attribution research to advance climate policy. Nature Climate Change, 2016, 6, 901-908.	18.8	61
30	Fast shrinkage of tropical glaciers in Colombia. Annals of Glaciology, 2006, 43, 194-201.	1.4	59
31	Remotely sensed debris thickness mapping of Bara Shigri Glacier, Indian Himalaya. Journal of Glaciology, 2015, 61, 675-688.	2.2	58
32	GIS-based modelling of rock-ice avalanches from Alpine permafrost areas. Computational Geosciences, 2006, 10, 161-178.	2.4	57
33	Future climate and cryosphere impacts on the hydrology of a scarcely gauged catchment on the Jhelum river basin, Northern Pakistan. Science of the Total Environment, 2018, 639, 961-976.	8.0	57
34	Research Perspectives on Unstable Highâ€alpine Bedrock Permafrost: Measurement, Modelling and Process Understanding. Permafrost and Periglacial Processes, 2012, 23, 80-88.	3.4	56
35	Monitoring topographic changes in a periglacial highâ€mountain face using highâ€resolution DTMs, Monte Rosa East Face, Italian Alps. Permafrost and Periglacial Processes, 2011, 22, 140-152.	3.4	55
36	Precursory seismicity associated with frequent, large ice avalanches on Iliamna volcano, Alaska, USA. Journal of Glaciology, 2007, 53, 128-140.	2.2	52

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37	The freezing level in the tropical Andes, Peru: An indicator for present and future glacier extents. Journal of Geophysical Research D: Atmospheres, 2017, 122, 5172-5189.	3.3	52
38	Managing risks and future options from new lakes in the deglaciating Andes of Peru: The example of the Vilcanota-Urubamba basin. Science of the Total Environment, 2019, 665, 465-483.	8.0	51
39	Implementation and integrated numerical modeling of a landslide early warning system: a pilot study in Colombia. Natural Hazards, 2010, 52, 501-518.	3.4	50
40	Ice thawing, mountains fallingâ€”are alpine rock slope failures increasing?. Geology Today, 2012, 28, 98-104.	0.9	47
41	How useful and reliable are disaster databases in the context of climate and global change? A comparative case study analysis in Peru. Natural Hazards and Earth System Sciences, 2015, 15, 475-485.	3.6	44
42	New land in the Neotropics: a review of biotic community, ecosystem, and landscape transformations in the face of climate and glacier change. Regional Environmental Change, 2019, 19, 1623-1642.	2.9	44
43	A risk analysis for floods and lahars: case study in the Cordillera Central of Colombia. Natural Hazards, 2012, 64, 767-796.	3.4	40
44	Anthropogenic climate change and glacier lake outburst flood risk: local and global drivers and responsibilities for the case of lake Palcacocha, Peru. Natural Hazards and Earth System Sciences, 2020, 20, 2175-2193.	3.6	40
45	Potential and limitations of the attribution of climate change impacts for informing loss and damage discussions and policies. Climatic Change, 2015, 133, 453-467.	3.6	39
46	Toward an imminent extinction of Colombian glaciers?. Geografiska Annaler, Series A: Physical Geography, 2018, 100, 75-95.	1.5	39
47	Review and reassessment of hazards owing to volcanoâ€“glacier interactions in Colombia. Annals of Glaciology, 2007, 45, 128-136.	1.4	37
48	Debris flows in the Swiss National Park: the influence of different flow models and varying DEM grid size on modeling results. Landslides, 2008, 5, 311-319.	5.4	37
49	Recent Extreme Avalanches: Triggered by Climate Change?. Eos, 2008, 89, 469-470.	0.1	35
50	Supraâ€glacial deposition and flux of catastrophic rockâ€“slope failure debris, southâ€central Alaska. Earth Surface Processes and Landforms, 2013, 38, 675-682.	2.5	35
51	Regional-scale landslide susceptibility modelling in the Cordillera Blanca, Peruâ€”a comparison of different approaches. Landslides, 2019, 16, 395-407.	5.4	35
52	Database of glacial lake outburst floods (GLOFs)â€“IPL project No. 179. Landslides, 2014, 11, 161-165.	5.4	34
53	Ice-avalanche scenario elaboration and uncertainty propagation in numerical simulation of rock-/ice-avalanche-induced impact waves at Mount HualcÃ¡n and Lake 513, Peru. Landslides, 2016, 13, 1445-1459.	5.4	32
54	Climate change in the mountain cryosphere: impacts and responses. Regional Environmental Change, 2019, 19, 1225-1228.	2.9	32

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55	Limits and challenges to compiling and developing a database of glacial lake outburst floods. Landslides, 2016, 13, 1579-1584.	5.4	31
56	Loss and Damage in the mountain cryosphere. Regional Environmental Change, 2019, 19, 1387-1399.	2.9	30
57	Changing debris flow activity after sudden sediment input: a case study from the Swiss Alps. Geology Today, 2017, 33, 216-223.	0.9	28
58	Climate change-related risks and adaptation potential in Central and South America during the 21st century. Environmental Research Letters, 2022, 17, 033002.	5.2	27
59	A robust debris-flow and GLOF risk management strategy for a data-scarce catchment in Santa Teresa, Peru. Landslides, 2016, 13, 1493-1507.	5.4	26
60	Losses and damages connected to glacier retreat in the Cordillera Blanca, Peru. Climatic Change, 2020, 162, 837-858.	3.6	26
61	Glacial lake depth and volume estimation based on a large bathymetric dataset from the Cordillera Blanca, Peru. Earth Surface Processes and Landforms, 2020, 45, 1510-1527.	2.5	25
62	Climatic and hydrological projections to changing climate under CORDEX-South Asia experiments over the Karakoram-Hindukush-Himalayan water towers. Science of the Total Environment, 2020, 703, 135010.	8.0	23
63	Risk estimation for future glacier lake outburst floods based on local land-use changes. Natural Hazards and Earth System Sciences, 2014, 14, 1611-1624.	3.6	22
64	Scientific Knowledge and Knowledge Needs in Climate Adaptation Policy: A Case Study of Diverse Mountain Regions. Mountain Research and Development, 2016, 36, 364.	1.0	22
65	Landslides and increased debrisâ€flow activity: A systematic comparison of six catchments in Switzerland. Earth Surface Processes and Landforms, 2019, 44, 699-712.	2.5	22
66	The 2020 glacial lake outburst flood process chain at Lake Salkantaycocha (Cordillera Vilcabamba,) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50	5.4	22
67	Analysis of Weather- and Climate-Related Disasters in Mountain Regions Using Different Disaster Databases. Sustainable Development Goals Series, 2018, , 17-41.	0.4	21
68	Inventory and evolution of glacial lakes since the Little Ice Age: Lessons from the case of Switzerland. Earth Surface Processes and Landforms, 2021, 46, 2551-2564.	2.5	18
69	Area changes of glaciers on active volcanoes in Latin America between 1986 and 2015 observed from multi-temporal satellite imagery. Journal of Glaciology, 2019, 65, 542-556.	2.2	17
70	Ten years of monthly mass balance of Conejeras glacier, Colombia, and their evaluation using different interpolation methods. Geografiska Annaler, Series A: Physical Geography, 2017, 99, 155-176.	1.5	13
71	Differentiating regions for adaptation financing: the role of global vulnerability and risk distributions. Wiley Interdisciplinary Reviews: Climate Change, 2017, 8, e447.	8.1	13
72	Precipitation Characteristics at Two Locations in the Tropical Andes by Means of Vertically Pointing Micro-Rain Radar Observations. Remote Sensing, 2019, 11, 2985.	4.0	13

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73	Early warning systems: The â€œlast mileâ€•of adaptation. Eos, 2012, 93, 209-210.	0.1	8
74	Towards integrated assessments of water risks in deglaciating mountain areas: water scarcity and GLOF risk in the Peruvian Andes. Geoenvironmental Disasters, 2020, 7, 26.	3.6	6
75	Evolution of the largest glacier in Mexico (Glaciar Norte) since the 50s: factors driving glacier retreat. Geografiska Annaler, Series A: Physical Geography, 2019, 101, 350-373.	1.5	5
76	Developing a science-based policy network over the Upper Indus Basin. Science of the Total Environment, 2021, 784, 147067.	8.0	5
77	Reply to the comments by Kochtitzky and Edwards (2020) on the study â€˜Area changes of glaciers on active volcanoes in Latin Americaâ€™ by Reinthaler and others (2019). Journal of Glaciology, 2020, 66, 887-888.	2.2	0
78	14. Climate adaptation limits and the right to food security. , 2021, , .		0