Francesca Pellicciotti

List of Publications by Year
in descending order

81 papers	6,243 citations	76326 40 h-index	71685 76 g-index
125 all docs	125 docs citations	125 times ranked	4171 citing authors

#	Article	IF	Citations
1	Intensified paraglacial slope failures due to accelerating downwasting of a temperate glacier in Mt. Gongga, southeastern Tibetan Plateau. Earth Surface Dynamics, 2022, 10, 23-42.	2.4	8
2	Knowledge Priorities on Climate Change and Water in the Upper Indus Basin: A Horizon Scanning Exercise to Identify the Top 100 Research Questions in Social and Natural Sciences. Earth's Future, 2022, 10, .	6.3	14
3	Controls on the relative melt rates of debris-covered glacier surfaces. Environmental Research Letters, 2022, 17, 064004.	5.2	12
4	Understanding monsoon controls on the energy and mass balance of glaciers in the Central and Eastern Himalaya. Cryosphere, 2022, 16, 1631-1652.	3.9	17
5	Modelling supraglacial debris-cover evolution from the single-glacier to the regional scale: an application to High Mountain Asia. Cryosphere, 2022, 16, 1697-1718.	3.9	10
6	Mapping ice cliffs on debris-covered glaciers using multispectral satellite images. Remote Sensing of Environment, 2021, 253, 112201.	11.0	30
7	Using climate reanalysis data in conjunction with multi-temporal satellite thermal imagery to derive supraglacial debris thickness changes from energy-balance modelling. Journal of Glaciology, 2021, 67, 366-384.	2.2	5
8	Distributed summer air temperatures across mountain glaciers in the south-east Tibetan Plateau: temperature sensitivity and comparison with existing glacier datasets. Cryosphere, 2021, 15, 595-614.	3.9	18
9	Supraglacial Ice Cliffs Can Substantially Increase the Mass Loss of Debrisâ€€overed Glaciers. Geophysical Research Letters, 2021, 48, e2020GL092150.	4.0	34
10	Anisotropy Parameterization Development and Evaluation for Glacier Surface Albedo Retrieval from Satellite Observations. Remote Sensing, 2021, 13, 1714.	4.0	10
11	Health and sustainability of glaciers in High Mountain Asia. Nature Communications, 2021, 12, 2868.	12.8	118
12	Interannual Dynamics of Ice Cliff Populations on Debrisâ€€overed Glaciers From Remote Sensing Observations and Stochastic Modeling. Journal of Geophysical Research F: Earth Surface, 2021, 126, e2021JF006179.	2.8	13
13	The Energy and Mass Balance of Peruvian Glaciers. Journal of Geophysical Research D: Atmospheres, 2021, 126, e2021JD034911.	3.3	11
14	Multi-Source Hydrological Data Products to Monitor High Asian River Basins and Regional Water Security. Remote Sensing, 2021, 13, 5122.	4.0	3
15	Importance and vulnerability of the worldâ€™s water towers. Nature, 2020, 577, 364-369.	27.8	885
16	Snow Depth Patterns in a High Mountain Andean Catchment from Satellite Optical Tristereoscopic Remote Sensing. Water Resources Research, 2020, 56, e2019WR024880.	4.2	32
17	Seasonal Dynamics of a Temperate Tibetan Glacier Revealed by High-Resolution UAV Photogrammetry and In Situ Measurements. Remote Sensing, 2020, 12, 2389.	4.0	25
18	The state of rock debris covering Earthâ€™s glaciers. Nature Geoscience, 2020, 13, 621-627.	12.9	118

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19	Modelling spatial patterns of near-surface air temperature over a decade of melt seasons on McCall Glacier, Alaska. Journal of Glaciology, 2020, 66, 386-400.	2.2	9
20	The Utility of Optical Satellite Winter Snow Depths for Initializing a Glacioâ€Hydrological Model of a Highâ€Elevation, Andean Catchment. Water Resources Research, 2020, 56, e2020WR027188.	4.2	12
21	Glacier runoff variations since 1955 in the Maipo River basin, in the semiarid Andes of central Chile. Cryosphere, 2020, 14, 2005-2027.	3.9	44
22	Highâ€Resolution Snowline Delineation From Landsat Imagery to Infer Snow Cover Controls in a Himalayan Catchment. Water Resources Research, 2019, 55, 6754-6772.	4.2	24
23	Supraglacial ice cliffs and ponds on debris-covered glaciers: spatio-temporal distribution and characteristics. Journal of Glaciology, 2019, 65, 617-632.	2.2	44
24	Modeling the Response of the Langtang Glacier and the Hintereisferner to a Changing Climate Since the Little Ice Age. Frontiers in Earth Science, 2019, 7, .	1.8	16
25	Interannual variability in glacier contribution to runoff from a highâ€elevation Andean catchment: understanding the role of debris cover in glacier hydrology. Hydrological Processes, 2019, 33, 214-229.	2.6	34
26	Aspect controls the survival of ice cliffs on debris-covered glaciers. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, 4369-4374.	7.1	33
27	Surface Pond Energy Absorption Across Four Himalayan Glaciers Accounts for 1/8 of Total Catchment Ice Loss. Geophysical Research Letters, 2018, 45, 10464-10473.	4.0	61
28	Automated detection of ice cliffs within supraglacial debris cover. Cryosphere, 2018, 12, 1811-1829.	3.9	26
29	Snow Depth Structure, Fractal Behavior, and Interannual Consistency Over Haut Glacier d'Arolla, Switzerland. Water Resources Research, 2018, 54, 7929-7945.	4.2	6
30	Spatial, seasonal and interannual variability of supraglacial ponds in the Langtang Valley of Nepal, 1999â€“2013. Journal of Glaciology, 2017, 63, 88-105.	2.2	60
31	Melt and surface sublimation across a glacier in a dry environment: distributed energy-balance modelling of Juncal Norte Glacier, Chile. Journal of Glaciology, 2017, 63, 803-822.	2.2	31
32	Patterns of glacier ablation across <scp>N</scp>orthâ€<scp>C</scp>entral <scp>C</scp>hile: Identifying the limits of empirical melt models under sublimationâ€favorable conditions. Water Resources Research, 2017, 53, 5601-5625.	4.2	32
33	Pond Dynamics and Supraglacial-Englacial Connectivity on Debris-Covered Lirung Glacier, Nepal. Frontiers in Earth Science, 2017, 5, .	1.8	47
34	Centreline and cross-glacier air temperature variability on an Alpine glacier: assessing temperature distribution methods and their influence on melt model calculations. Journal of Glaciology, 2017, 63, 973-988.	2.2	13
35	Heterogeneous glacier thinning patterns over the last 40 years in Langtang Himal, Nepal. Cryosphere, 2016, 10, 2075-2097.	3.9	108
36	Air temperature distribution and energy-balance modelling of a debris-covered glacier. Journal of Glaciology, 2016, 62, 185-198.	2.2	25

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37	A grid-based model of backwasting of supraglacial ice cliffs on debris-covered glaciers. Annals of Glaciology, 2016, 57, 199-211.	1.4	74
38	Variability of air temperature over a debris-covered glacier in the Nepalese Himalaya. Annals of Glaciology, 2016, 57, 295-307.	1.4	40
39	Seasonal surface velocities of a Himalayan glacier derived by automated correlation of unmanned aerial vehicle imagery. Annals of Glaciology, 2016, 57, 103-113.	1.4	108
40	Air temperature variability in a high-elevation Himalayan catchment. Annals of Glaciology, 2016, 57, 212-222.	1.4	45
41	Refined energy-balance modelling of a supraglacial pond, Langtang Khola, Nepal. Annals of Glaciology, 2016, 57, 29-40.	1.4	95
42	Object-based analysis of unmanned aerial vehicle imagery to map and characterise surface features on a debris-covered glacier. Remote Sensing of Environment, 2016, 186, 581-595.	11.0	117
43	Contrasting climate change impact on river flows from high-altitude catchments in the Himalayan and Andes Mountains. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, 9222-9227.	7.1	145
44	Estimating runoff from a glacierized catchment using natural tracers in the semiâ€arid Andes cordillera. Hydrological Processes, 2016, 30, 3609-3626.	2.6	30
45	Modelling the hydrological response of debrisâ€free and debrisâ€covered glaciers to present climatic conditions in the semiarid Andes of central Chile. Hydrological Processes, 2016, 30, 4036-4058.	2.6	40
46	A physically based 3â€Ð model of ice cliff evolution over debrisâ€covered glaciers. Journal of Geophysical Research F: Earth Surface, 2016, 121, 2471-2493.	2.8	47
47	Quantifying volume loss from ice cliffs on debris-covered glaciers using high-resolution terrestrial and aerial photogrammetry. Journal of Glaciology, 2016, 62, 684-695.	2.2	71
48	An enhanced temperature index model for debris-covered glaciers accounting for thickness effect. Advances in Water Resources, 2016, 94, 457-469.	3.8	35
49	Modelling ice-cliff backwasting on a debris-covered glacier in the Nepalese Himalaya. Journal of Glaciology, 2015, 61, 889-907.	2.2	70
50	Modeling 2â€‰m air temperatures over mountain glaciers: Exploring the influence of katabatic cooling and external warming. Journal of Geophysical Research D: Atmospheres, 2015, 120, 3139-3157.	3.3	33
51	Satellite observations show no net change in the percentage of supraglacial debris-covered area in northern Pakistan from 1977 to 2014. Journal of Glaciology, 2015, 61, 524-536.	2.2	41
52	Mass-balance changes of the debris-covered glaciers in the Langtang Himal, Nepal, from 1974 to 1999. Journal of Glaciology, 2015, 61, 373-386.	2.2	129
53	Unraveling the hydrology of a Himalayan catchment through integration of high resolution in situ data and remote sensing with an advanced simulation model. Advances in Water Resources, 2015, 78, 94-111.	3.8	142
54	A comparative high-altitude meteorological analysis from three catchments in the Nepalese Himalaya. International Journal of Water Resources Development, 2015, 31, 174-200.	2.0	89

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55	An evaluation of approaches for modelling hydrological processes in highâ€elevation, glacierized Andean watersheds. Hydrological Processes, 2014, 28, 5674-5695.	2.6	62
56	Changes in glaciers in the Swiss Alps and impact on basin hydrology: Current state of the art and future research. Science of the Total Environment, 2014, 493, 1152-1170.	8.0	25
57	The importance of observed gradients of air temperature and precipitation for modeling runoff from a glacierized watershed in the Nepalese Himalayas. Water Resources Research, 2014, 50, 2212-2226.	4.2	229
58	Changes of glaciers in the Andes of Chile and priorities for future work. Science of the Total Environment, 2014, 493, 1197-1210.	8.0	94
59	High-resolution monitoring of Himalayan glacier dynamics using unmanned aerial vehicles. Remote Sensing of Environment, 2014, 150, 93-103.	11.0	382
60	A comparison of empirical and physically based glacier surface melt models for long-term simulations of glacier response. Journal of Glaciology, 2014, 60, 1140-1154.	2.2	83
61	Rising river flows throughout the twenty-first century in two Himalayan glacierized watersheds. Nature Geoscience, 2013, 6, 742-745.	12.9	391
62	A comparison of parameterizations of incoming longwave radiation over melting glaciers: Model robustness and seasonal variability. Journal of Geophysical Research D: Atmospheres, 2013, 118, 3066-3084.	3.3	32
63	Suitability of a constant air temperature lapse rate over an Alpine glacier: testing the Greuell and BÃ¶hm model as an alternative. Annals of Glaciology, 2013, 54, 120-130.	1.4	46
64	Parameter sensitivity of a distributed enhanced temperature-index melt model. Annals of Glaciology, 2013, 54, 311-321.	1.4	24
65	Sources of uncertainty in modeling the glaciohydrological response of a Karakoram watershed to climate change. Water Resources Research, 2013, 49, 6048-6066.	4.2	95
66	Comparison of climate change signals in CMIP3 and CMIP5 multi-model ensembles and implications for Central Asian glaciers. Hydrology and Earth System Sciences, 2013, 17, 3661-3677.	4.9	65
67	Glaciers as a Proxy to Quantify the Spatial Distribution of Precipitation in the Hunza Basin. Mountain Research and Development, 2012, 32, 30-38.	1.0	102
68	Challenges and Uncertainties in Hydrological Modeling of Remote Hindu Kushâ€“Karakoramâ€“Himalayan (HKH) Basins: Suggestions for Calibration Strategies. Mountain Research and Development, 2012, 32, 39-50.	1.0	123
69	Calibration of a physically based, spatially distributed hydrological model in a glacierized basin: On the use of knowledge from glaciometeorological processes to constrain model parameters. Water Resources Research, 2012, 48, .	4.2	93
70	Including debris cover effects in a distributed model of glacier ablation. Journal of Geophysical Research, 2012, 117, .	3.3	86
71	The value of glacier mass balance, satellite snow cover images, and hourly discharge for improving the performance of a physically based distributed hydrological model. Water Resources Research, 2011, 47, .	4.2	96
72	Spatial and temporal variability of air temperature on a melting glacier: Atmospheric controls, extrapolation methods and their effect on melt modeling, Juncal Norte Glacier, Chile. Journal of Geophysical Research, 2011, 116, n/a-n/a.	3.3	82

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73	Transmission of solar radiation through clouds on melting glaciers: a comparison of parameterizations and their impact on melt modelling. Journal of Glaciology, 2011, 57, 367-381.	2.2	51
74	Effect of glaciers on streamflow trends in the Swiss Alps. Water Resources Research, 2010, 46, .	4.2	68
75	On the role of subsurface heat conduction in glacier energy-balance modelling. Annals of Glaciology, 2009, 50, 16-24.	1.4	37
76	Assessing the transferability and robustness of an enhanced temperature-index glacier-melt model. Journal of Glaciology, 2009, 55, 258-274.	2.2	70
77	A study of the energy balance and melt regime on Juncal Norte Glacier, semiâ€arid Andes of central Chile, using melt models of different complexity. Hydrological Processes, 2008, 22, 3980-3997.	2.6	112
78	An enhanced temperature-index glacier melt model including the shortwave radiation balance: development and testing for Haut Glacier dâ€™Arolla, Switzerland. Journal of Glaciology, 2005, 51, 573-587.	2.2	321
79	Spatial and temporal variability of meteorological variables at Haut Glacier d'Arolla (Switzerland) during the ablation season 2001: Measurements and simulations. Journal of Geophysical Research, 2004, 109, n/a-n/a.	3.3	72
80	Glaciological Investigations Using the Synthetic Aperture Radar Imaging System. Annals of Glaciology, 1987, 9, 11-19.	1.4	28
81	Air temperature distribution and energy-balance modelling of a debris-covered glacier. Journal of Glaciology, 0, , 1-14.	2.2	4