FrÃ©dÃ©ric Herman

List of Publications by Year
in descending order

53 papers	2,979 citations	186265 28 h-index	168389 53 g-index
55 all docs	55 docs citations	55 times ranked	3395 citing authors

#	Article	IF	Citations
1	Solidification depth and crystallization age of the Shiaidani Granodiorite: Constraints to the average denudation rate of the Hida Range, central Japan. Island Arc, 2021, 30, e12414.	1.1	3
2	Determining the evolution of an alpine glacier drainage system by solving inverse problems. Journal of Glaciology, 2021, 67, 421-434.	2.2	7
3	Metamorphic transformation rate over large spatial and temporal scales constrained by geophysical data and coupled modelling. Journal of Metamorphic Geology, 2021, 39, 1131-1143.	3.4	9
4	The impact of glaciers on mountain erosion. Nature Reviews Earth & Environment, 2021, 2, 422-435.	29.7	45
5	Orogenâ€Parallel Migration of Exhumation in the Eastern Aar Massif Revealed by Lowâ€T Thermochronometry. Journal of Geophysical Research: Solid Earth, 2021, 126, e2020JB020799.	3.4	6
6	Postglacial erosion of bedrock surfaces and deglaciation timing: New insights from the Mont Blanc massif (western Alps). Geology, 2020, 48, 139-144.	4.4	25
7	The relationships between tectonics, climate and exhumation in the Central Andes (18â€“36Â°S): Evidence from low-temperature thermochronology. Earth-Science Reviews, 2020, 210, 103276.	9.1	31
8	Inversion of provenance data and sediment load into spatially varying erosion rates. Earth Surface Processes and Landforms, 2020, 45, 3879-3901.	2.5	8
9	A glacial buzzsaw effect generated by efficient erosion of temperate glaciers in a steady state model. Earth and Planetary Science Letters, 2020, 543, 116350.	4.4	17
10	Climatic patterns over the European Alps during the LGM derived from inversion of the paleo-ice extent. Earth and Planetary Science Letters, 2020, 538, 116185.	4.4	28
11	Parameterization of river incision models requires accounting for environmental heterogeneity: insights from the tropical Andes. Earth Surface Dynamics, 2020, 8, 447-470.	2.4	27
12	Evaluating post-glacial bedrock erosion and surface exposure duration by coupling in situ optically stimulated luminescence and ¹⁰Be dating. Earth Surface Dynamics, 2019, 7, 633-662.	2.4	18
13	Holocene Sedimentary Record and Coastal Evolution in the Makran Subduction Zone (Iran). Quaternary, 2019, 2, 21.	2.0	8
14	Bayesian Inference of Subglacial Channel Structures From Water Pressure and Tracerâ€Transit Time Data: A Numerical Study Based on a 2â€D Geostatistical Modeling Approach. Journal of Geophysical Research F: Earth Surface, 2019, 124, 1625-1644.	2.8	6
15	Dating and morpho-stratigraphy of uplifted marine terraces in the Makran subduction zone (Iran). Earth Surface Dynamics, 2019, 7, 321-344.	2.4	20
16	A high-resolution image time series of the Gorner Glacier â€“ Swiss Alps â€“ derived from repeated unmanned aerial vehicle surveys. Earth System Science Data, 2019, 11, 579-588.	9.9	32
17	The Response Time of Glacial Erosion. Journal of Geophysical Research F: Earth Surface, 2018, 123, 801-817.	2.8	24
18	Arsenic Speciation in Mekong Delta Sediments Depends on Their Depositional Environment. Environmental Science & Technology, 2018, 52, 3431-3439.	10.0	50

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19	Luminescence Thermochronometry: Investigating the Link between Mountain Erosion, Tectonics and Climate. Elements, 2018, 14, 33-38.	0.5	19
20	Erosion of the Southern Alps of New Zealand during the last deglaciation. Geology, 2018, 46, 975-978.	4.4	9
21	Reconstructing spatially variable mass balances from past ice extents by inverse modeling. Journal of Glaciology, 2018, 64, 957-968.	2.2	5
22	Geological and climatic influences on mountain biodiversity. Nature Geoscience, 2018, 11, 718-725.	12.9	390
23	Glacial Steady State Topography Controlled by the Coupled Influence of Tectonics and Climate. Journal of Geophysical Research F: Earth Surface, 2018, 123, 1344-1362.	2.8	13
24	Constraining provenance, thickness and erosion of nappes using lowâ€temperature thermochronology: the Northland Allochthon, New Zealand. Basin Research, 2017, 29, 81-95.	2.7	3
25	Exhumation mechanisms of the Tauern Window (Eastern Alps) inferred from apatite and zircon fission track thermochronology. Tectonics, 2017, 36, 207-228.	2.8	23
26	Late Cenozoic exhumation model of New Zealand: Impacts from tectonics and climate. Earth-Science Reviews, 2017, 166, 286-298.	9.1	37
27	Exploring IRSL50 fading variability in bedrock feldspars and implications for OSL thermochronometry. Quaternary Geochronology, 2016, 36, 55-66.	1.4	22
28	Time and mode of exhumation of the Cordillera Blanca batholith (Peruvian Andes). Journal of Geophysical Research: Solid Earth, 2016, 121, 6235-6249.	3.4	21
29	Plioâ€Pleistocene increase of erosion rates in mountain belts in response to climate change. Terra Nova, 2016, 28, 2-10.	2.1	68
30	Northward migration of the eastern Himalayan syntaxis revealed by OSL thermochronometry. Science, 2016, 353, 800-804.	12.6	92
31	The Exhumation history of the European Alps inferred from linear inversion of thermochronometric data. Numerische Mathematik, 2016, 316, 505-541.	1.4	51
32	Provenance analysis using Raman spectroscopy of carbonaceous material: A case study in the Southern Alps of New Zealand. Journal of Geophysical Research F: Earth Surface, 2015, 120, 2056-2079.	2.8	22
33	Radiation-induced growth and isothermal decay of infrared-stimulated luminescence from feldspar. Radiation Measurements, 2015, 81, 224-231.	1.4	66
34	Constraints on the role of tectonic and climate on erosion revealed by two time series analysis of marine cores around New Zealand. Earth and Planetary Science Letters, 2015, 410, 174-185.	4.4	26
35	Rapid exhumation in the Western Alps driven by slab detachment and glacial erosion. Geology, 2015, 43, 379-382.	4.4	80
36	Erosion by an Alpine glacier. Science, 2015, 350, 193-195.	12.6	138

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37	Mid-latitude glacial erosion hotspot related to equatorial shifts in southern Westerlies. Geology, 2015, 43, 987-990.	4.4	57
38	A linear inversion method to infer exhumation rates in space and time from thermochronometric data. Earth Surface Dynamics, 2014, 2, 47-65.	2.4	50
39	Controls of initial topography on temporal and spatial patterns of glacial erosion. Geomorphology, 2014, 223, 96-116.	2.6	32
40	Late-Cenozoic relief evolution under evolving climate: A review. Tectonophysics, 2014, 614, 44-65.	2.2	51
41	Worldwide acceleration of mountain erosion under a cooling climate. Nature, 2013, 504, 423-426.	27.8	382
42	Effective closure temperature in leaky and/or saturating thermochronometers. Earth and Planetary Science Letters, 2013, 384, 209-218.	4.4	39
43	Spatial and temporal variations of glacial erosion in the RhÃ´ne valley (Swiss Alps): Insights from numerical modeling. Earth and Planetary Science Letters, 2013, 368, 119-131.	4.4	46
44	Bimodal Plioâ€“Quaternary glacial erosion of fjords and low-relief surfaces in Scandinavia. Nature Geoscience, 2012, 5, 635-639.	12.9	81
45	Tectonics, climate, and mountain topography. Journal of Geophysical Research, 2012, 117, .	3.3	121
46	Late Neogene exhumation and relief development of the Aar and Aiguilles Rouges massifs (Swiss Alps) from lowâ€temperature thermochronology modeling and ⁴He/³He thermochronometry. Journal of Geophysical Research, 2012, 117, .	3.3	54
47	Hypsometric analysis to identify spatially variable glacial erosion. Journal of Geophysical Research, 2011, 116, .	3.3	53
48	Glacial hydrology and erosion patterns: A mechanism for carving glacial valleys. Earth and Planetary Science Letters, 2011, 310, 498-508.	4.4	150
49	Mountain glacier velocity variation during a retreat/advance cycle quantified using sub-pixel analysis of ASTER images. Journal of Glaciology, 2011, 57, 197-207.	2.2	88
50	Inversion of thermochronological ageâ€“elevation profiles to extract independent estimates of denudation and relief history â€” II: Application to the French Western Alps. Earth and Planetary Science Letters, 2010, 296, 9-22.	4.4	69
51	Uniform erosion rates and relief amplitude during glacial cycles in the Southern Alps of New Zealand, as revealed from OSL-thermochronology. Earth and Planetary Science Letters, 2010, 297, 183-189.	4.4	120
52	Evolution of the glacial landscape of the Southern Alps of New Zealand: Insights from a glacial erosion model. Journal of Geophysical Research, 2008, 113, .	3.3	77
53	Tectonomorphic scenarios in the Southern Alps of New Zealand. Journal of Geophysical Research, 2007, 112, .	3.3	56