Robert S Anderson

List of Publications by Year
in descending order

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59 papers	7,211 citations	109137 35 h-index	138251 58 g-index
61 all docs	61 docs citations	61 times ranked	4971 citing authors

#	Article	IF	Citations
1	Bedrock incision, rock uplift and threshold hillslopes in the northwestern Himalayas. Nature, 1996, 379, 505-510.	13.7	986
2	Glaciers Dominate Eustatic Sea-Level Rise in the 21st Century. Science, 2007, 317, 1064-1067.	6.0	570
3	Numerical modeling of fluvial strath-terrace formation in response to oscillating climate. Bulletin of the Geological Society of America, 2002, 114, 1131-1142.	1.6	382
4	Explicit treatment of inheritance in dating depositional surfaces using in situ 10Be and 26Al. Geology, 1996, 24, 47.	2.0	292
5	Hillslope and channel evolution in a marine terraced landscape, Santa Cruz, California. Journal of Geophysical Research, 1994, 99, 14013-14029.	3.3	274
6	Estimates of the rate of regolith production using and from an alpine hillslope. Geomorphology, 1999, 27, 131-150.	1.1	247
7	Sediment transport by wind: Toward a general model. Bulletin of the Geological Society of America, 1986, 97, 523.	1.6	235
8	Tectonics, fracturing of rock, and erosion. Journal of Geophysical Research, 2007, 112, .	3.3	228
9	Erosion rates of alpine bedrock summit surfaces deduced from in situ 10Be and 26Al. Earth and Planetary Science Letters, 1997, 150, 413-425.	1.8	223
10	Response of glacier basal motion to transient water storage. Nature Geoscience, 2008, 1, 33-37.	5.4	223
11	Landsliding and the evolution of normal-fault-bounded mountains. Journal of Geophysical Research, 1998, 103, 15203-15219.	3.3	214
12	Modeling the tor-dotted crests, bedrock edges, and parabolic profiles of high alpine surfaces of the Wind River Range, Wyoming. Geomorphology, 2002, 46, 35-58.	1.1	203
13	Rock damage and regolith transport by frost: an example of climate modulation of the geomorphology of the critical zone. Earth Surface Processes and Landforms, 2013, 38, 299-316.	1.2	189
14	Cosmogenic dating of fluvial terraces, Fremont River, Utah. Earth and Planetary Science Letters, 1997, 152, 59-73.	1.8	183
15	Pleistocene relief production in Laramide mountain ranges, western United States. Geology, 1998, 26, 123.	2.0	180
16	A theoretical model for aeolian impact ripples. Sedimentology, 1987, 34, 943-956.	1.6	179
17	Dating fluvial terraces with and profiles: application to the Wind River, Wyoming. Geomorphology, 1999, 27, 41-60.	1.1	167
18	Features of glacial valley profiles simply explained. Journal of Geophysical Research, 2006, 111, .	3.3	163

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19	Pace of landscape evolution in the Sierra Nevada, California, revealed by cosmogenic dating of cave sediments. Geology, 2004, 32, 193.	2.0	142
20	Beyond power: Bedrock river incision process and form. Geophysical Monograph Series, 1998, , 35-60.	0.1	141
21	Relationships among probability distributions of stream discharges in floods, climate, bed load transport, and river incision. Journal of Geophysical Research, 2006, 111, .	3.3	137
22	Numerical and analytical models of cosmogenic radionuclide dynamics in landslideâ€dominated drainage basins. Journal of Geophysical Research, 2009, 114, .	3.3	137
23	Grain size segregation and stratigraphy in aeolian ripples modelled with a cellular automaton. Nature, 1993, 365, 740-743.	13.7	107
24	Grain scale simulations of loose sedimentary beds: the example of grain-bed impacts in aeolian saltation. Sedimentology, 1993, 40, 175-198.	1.6	104
25	Measurement of tectonic surface uplift rate in a young collisional mountain belt. Nature, 1997, 385, 501-507.	13.7	100
26	Self-formed bedrock channels. Geophysical Research Letters, 2006, 33, n/a-n/a.	1.5	95
27	The pattern of grainfall deposition in the lee of aeolian dunes. Sedimentology, 1988, 35, 175-188.	1.6	82
28	Comparison of Uâ€“Th, paleomagnetism, and cosmogenic burial methods for dating caves: Implications for landscape evolution studies. Earth and Planetary Science Letters, 2005, 236, 388-403.	1.8	78
29	Rates of erosion and topographic evolution of the Sierra Nevada, California, inferred from cosmogenic26Al and10Be concentrations. Earth Surface Processes and Landforms, 2005, 30, 985-1006.	1.2	77
30	Does climate change create distinctive patterns of landscape incision?. Journal of Geophysical Research, 2010, 115, .	3.3	77
31	Pacing the postâ€“Last Glacial Maximum demise of the Animas Valley glacier and the San Juan Mountain ice cap, Colorado. Geology, 2007, 35, 739.	2.0	49
32	Far-flung moraines: Exploring the feedback of glacial erosion on the evolution of glacier length. Geomorphology, 2012, 179, 269-285.	1.1	45
33	Testing a numerical glacial hydrological model using spring speed-up events and outburst floods. Geophysical Research Letters, 2004, 31, .	1.5	44
34	Experimental verification of aeolian saltation and lee side deposition models. Sedimentology, 1995, 42, 39-56.	1.6	41
35	Facing reality: Late Cenozoic evolution of smooth peaks, glacially ornamented valleys, and deep river gorges of Colorado's Front Range. , 2006, , .		41
36	The dynamic response of Kennicott Glacier, Alaska, USA, to the Hidden Creek Lake outburst flood. Annals of Glaciology, 2005, 40, 237-242.	2.8	36

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37	Characterizing the transient geomorphic response to baseâ€level fall in the northeastern Tibetan Plateau. Journal of Geophysical Research F: Earth Surface, 2017, 122, 546-572.	1.0	36
38	Spatial and temporal evolution of rapid basal sliding on Bench Glacier, Alaska, USA. Journal of Glaciology, 2005, 51, 49-63.	1.1	35
39	Local response of a glacier to annual filling and drainage of an ice-marginal lake. Journal of Glaciology, 2006, 52, 440-450.	1.1	35
40	Modeling the evolution of channel shape: Balancing computational efficiency with hydraulic fidelity. Journal of Geophysical Research, 2008, 113, .	3.3	35
41	Solving a conundrum of a steady-state hilltop with variable soil depths and production rates, Bodmin Moor, UK. Geomorphology, 2011, 128, 73-84.	1.1	34
42	Reconstructing the Glacial History of Green Lakes Valley, North Boulder Creek, Colorado Front Range. Arctic, Antarctic, and Alpine Research, 2011, 43, 527-542.	0.4	33
43	Hillslope lowering rates and mobile-regolith residence times from in situ and meteoric¹⁰Be analysis, Boulder Creek Critical Zone Observatory, Colorado. Bulletin of the Geological Society of America, 2015, 127, 862-878.	1.6	32
44	Scaling the Teflon Peaks: Rock type and the generation of extreme relief in the glaciated western Alaska Range. Journal of Geophysical Research, 2012, 117, .	3.3	30
45	The use of ablationâ€dominated medial moraines as samplers for ¹⁰Beâ€derived erosion rates of glacier valley walls, Kichatna Mountains, AK. Earth Surface Processes and Landforms, 2011, 36, 495-512.	1.2	27
46	The annual glaciohydrology cycle in the ablation zone of the Greenland ice sheet: Part 2. Observed and modeled ice flow. Journal of Glaciology, 2012, 58, 51-64.	1.1	27
47	Particle trajectories on hillslopes: Implications for particle age and ¹⁰Be structure. Journal of Geophysical Research F: Earth Surface, 2015, 120, 1626-1644.	1.0	25
48	Fluvial erosion of physically modeled abrasion-dominated slot canyons. Geomorphology, 2006, 81, 89-113.	1.1	22
49	Unsteady late Pleistocene incision of streams bounding the Colorado Front Range from measurements of meteoric and in situ ¹⁰Be. Journal of Geophysical Research, 2012, 117, .	3.3	22
50	Spatial Patterns of Summer Speedup on South Central Alaska Glaciers. Geophysical Research Letters, 2017, 44, 9379-9388.	1.5	21
51	Longevity and progressive abandonment of the Rocky Flats surface, Front Range, Colorado. Geomorphology, 2006, 78, 265-278.	1.1	20
52	Impact of rock uplift on rates of late Cenozoic Rocky Mountain river incision. Journal of Geophysical Research, 2007, 112, .	3.3	19
53	Assessing the effect of a major storm on 10BE concentrations and inferred basin-averaged denudation rates. Quaternary Geochronology, 2016, 34, 58-68.	0.6	19
54	Dating of river terraces along Lefthand Creek, western High Plains, Colorado, reveals punctuated incision. Geomorphology, 2017, 295, 176-190.	1.1	18

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55	The Causes of Debris-Covered Glacier Thinning: Evidence for the Importance of Ice Dynamics From Kennicott Glacier, Alaska. Frontiers in Earth Science, 2021, 9, .	0.8	14
56	Interpreting climateâ€modulated processes of terrace development along the Colorado Front Range using a landscape evolution model. Journal of Geophysical Research F: Earth Surface, 2015, 120, 2121-2138.	1.0	13
57	Ice-marginal lake hydrology and the seasonal dynamical evolution of Kennicott Glacier, Alaska. Journal of Glaciology, 2020, 66, 699-713.	1.1	10
58	Saltation of sand: a qualitative review with biological analogy. Proceedings of the Royal Society of Edinburgh Section B Biological Sciences, 1989, 96, 149-165.	0.2	7
59	Twentieth-century Changes in the Thickness and Extent of Arapaho Glacier, Front Range, Colorado. Arctic, Antarctic, and Alpine Research, 2010, 42, 198-209.	0.4	6