

Leonard S Sklar

List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/2215758/publications.pdf>

Version: 2024-02-01

61
papers

5,580
citations

126907

33
h-index

128289

60
g-index

71
all docs

71
docs citations

71
times ranked

3857
citing authors

#	ARTICLE	IF	CITATIONS
1	Anisovolumetric weathering in granitic saprolite controlled by climate and erosion rate. <i>Geology</i> , 2021, 49, 551-555.	4.4	10
2	An Analytical Model for Lateral Erosion From Saltating Bedload Particle Impacts. <i>Journal of Geophysical Research F: Earth Surface</i> , 2021, 126, e2020JF006061.	2.8	10
3	Sediment size on talus slopes correlates with fracture spacing on bedrock cliffs: implications for predicting initial sediment size distributions on hillslopes. <i>Earth Surface Dynamics</i> , 2021, 9, 1073-1090.	2.4	9
4	Sediment size and abrasion biases in detrital thermochronology. <i>Earth and Planetary Science Letters</i> , 2020, 531, 115929.	4.4	6
5	Subsurface Weathering Revealed in Hillslope-Integrated Porosity Distributions. <i>Geophysical Research Letters</i> , 2020, 47, e2020GL088322.	4.0	21
6	Downvalley fining of hillslope sediment in an alpine catchment: implications for downstream fining of sediment flux in mountain rivers. <i>Earth Surface Processes and Landforms</i> , 2020, 45, 1828-1845.	2.5	20
7	A Mechanistic Model for Lateral Erosion of Bedrock Channel Banks by Bedload Particle Impacts. <i>Journal of Geophysical Research F: Earth Surface</i> , 2020, 125, e2019JF005509.	2.8	28
8	Connectivity as an emergent property of geomorphic systems. <i>Earth Surface Processes and Landforms</i> , 2019, 44, 4-26.	2.5	233
9	Occupied and abandoned structures from ecosystem engineering differentially facilitate stream community colonization. <i>Ecosphere</i> , 2019, 10, e02734.	2.2	18
10	Arrested development: Erosional equilibrium in the southern Sierra Nevada, California, maintained by feedbacks between channel incision and hillslope sediment production. <i>Bulletin of the Geological Society of America</i> , 2019, 131, 1179-1202.	3.3	21
11	Can environmental flows moderate riparian invasions? The influence of seedling morphology and density on scour losses in experimental floods. <i>Freshwater Biology</i> , 2019, 64, 474-484.	2.4	7
12	Aquatic macroinvertebrates stabilize gravel bed sediment: A test using silk net-spinning caddisflies in semi-natural river channels. <i>PLoS ONE</i> , 2019, 14, e0209087.	2.5	16
13	The problem of predicting the size distribution of sediment supplied by hillslopes to rivers. <i>Geomorphology</i> , 2017, 277, 31-49.	2.6	123
14	Fluvial sediment supply and pioneer woody seedlings as a control on barâ€‘surface topography. <i>Earth Surface Processes and Landforms</i> , 2017, 42, 724-734.	2.5	37
15	The Design of a Site-Calibrated Parkerâ€‘Klingeman Gravel Transport Model. <i>Water (Switzerland)</i> , 2017, 9, 441.	2.7	27
16	Catchment power and the joint distribution of elevation and travel distance to the outlet. <i>Earth Surface Dynamics</i> , 2016, 4, 799-818.	2.4	8
17	Lateral erosion in an experimental bedrock channel: The influence of bed roughness on erosion by bed load impacts. <i>Journal of Geophysical Research F: Earth Surface</i> , 2016, 121, 1084-1105.	2.8	32
18	Chemical weathering as a mechanism for the climatic control of bedrock river incision. <i>Nature</i> , 2016, 532, 223-227.	27.8	91

#	ARTICLE	IF	CITATIONS
19	The chemical, mechanical, and hydrological evolution of weathering granitoid. <i>Journal of Geophysical Research F: Earth Surface</i> , 2016, 121, 1410-1435.	2.8	49
20	Experimental Study of Particle Size Reduction in Geophysical Granular Flows. <i>International Journal of Erosion Control Engineering</i> , 2016, 9, 122-129.	0.5	6
21	Grain size bias in cosmogenic nuclide studies of stream sediment in steep terrain. <i>Journal of Geophysical Research F: Earth Surface</i> , 2016, 121, 978-999.	2.8	40
22	Tools for gauging the capacity of salmon spawning substrates. <i>Earth Surface Processes and Landforms</i> , 2016, 41, 130-142.	2.5	5
23	Reply to comment by S. P. Ferguson and C. D. Rennie on "A mechanistic model linking insect (Hydropsychidae) silk nets to incipient sediment motion in gravel-bedded streams". <i>Journal of Geophysical Research F: Earth Surface</i> , 2015, 120, 1151-1152.	2.8	0
24	New insights into the mechanics of fluvial bedrock erosion through flume experiments and theory. <i>Geomorphology</i> , 2015, 244, 33-55.	2.6	104
25	Climate and topography control the size and flux of sediment produced on steep mountain slopes. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2015, 112, 15574-15579.	7.1	89
26	Flume Experiments to Constrain Bedload Adaptation Length. <i>Journal of Hydrologic Engineering - ASCE</i> , 2015, 20, 06014007.	1.9	2
27	A mechanistic model linking insect (Hydropsychidae) silk nets to incipient sediment motion in gravel-bedded streams. <i>Journal of Geophysical Research F: Earth Surface</i> , 2014, 119, 1833-1852.	2.8	27
28	An ephemeral gorge. <i>Nature Geoscience</i> , 2014, 7, 624-625.	12.9	1
29	Urban recharge beneath low impact development and effects of climate variability and change. <i>Water Resources Research</i> , 2014, 50, 1716-1734.	4.2	86
30	Optimal reproduction in salmon spawning substrates linked to grain size and fish length. <i>Water Resources Research</i> , 2014, 50, 898-918.	4.2	55
31	The difficult, the dangerous, and the catastrophic: Managing the spectrum of climate risks. <i>Earth's Future</i> , 2014, 2, 114-118.	6.3	4
32	Non-Additive Increases in Sediment Stability Are Generated by Macroinvertebrate Species Interactions in Laboratory Streams. <i>PLoS ONE</i> , 2014, 9, e103417.	2.5	26
33	Experimental evidence for the effect of hydrographs on sediment pulse dynamics in gravel-bedded rivers. <i>Water Resources Research</i> , 2012, 48, .	4.2	73
34	Influence of temperature, composition, and grain size on the tensile failure of water ice: Implications for erosion on Titan. <i>Journal of Geophysical Research</i> , 2012, 117, .	3.3	63
35	Mining soil databases for landscape-scale patterns in the abundance and size distribution of hillslope rock fragments. <i>Earth Surface Processes and Landforms</i> , 2012, 37, 287-300.	2.5	40
36	Bed load transport in bedrock rivers: The role of sediment cover in grain entrainment, translation, and deposition. <i>Journal of Geophysical Research</i> , 2011, 116, .	3.3	86

#	ARTICLE	IF	CITATIONS
37	Ecogeomorphic feedbacks in regrowth of travertine step-pool morphology after dam decommissioning, Fossil Creek, Arizona. <i>Geomorphology</i> , 2011, 126, 314-332.	2.6	17
38	Accelerating and spatially-varying crustal uplift and its geomorphic expression, San Andreas Fault zone north of San Francisco, California. <i>Tectonophysics</i> , 2010, 495, 256-268.	2.2	11
39	Experimental evidence for the conditions necessary to sustain meandering in coarse-bedded rivers. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2009, 106, 16936-16941.	7.1	291
40	Transport slopes, sediment cover, and bedrock channel incision in the Henry Mountains, Utah. <i>Journal of Geophysical Research</i> , 2009, 114, .	3.3	108
41	Managing reservoir sediment release in dam removal projects: An approach informed by physical and numerical modelling of non-cohesive sediment. <i>International Journal of River Basin Management</i> , 2009, 7, 433-452.	2.7	40
42	Response of bed surface patchiness to reductions in sediment supply. <i>Journal of Geophysical Research</i> , 2009, 114, .	3.3	116
43	Translation and dispersion of sediment pulses in flume experiments simulating gravel augmentation below dams. <i>Water Resources Research</i> , 2009, 45, .	4.2	99
44	Implications of the saltation-abrasion bedrock incision model for steady-state river longitudinal profile relief and concavity. <i>Earth Surface Processes and Landforms</i> , 2008, 33, 1129-1151.	2.5	82
45	Sediment supply and relative size distribution effects on fine sediment infiltration into immobile gravels. <i>Water Resources Research</i> , 2008, 44, .	4.2	99
46	Experimental study of bedrock erosion by granular flows. <i>Journal of Geophysical Research</i> , 2008, 113, .	3.3	51
47	A model for fluvial bedrock incision by impacting suspended and bed load sediment. <i>Journal of Geophysical Research</i> , 2008, 113, .	3.3	186
48	Correction to "Experimental study of bedrock erosion by granular flows". <i>Journal of Geophysical Research</i> , 2008, 113, .	3.3	0
49	A Method for Developing Regional Road-Fill Failure Hazard Assessments Using GIS and Virtual Fieldwork. <i>Environmental and Engineering Geoscience</i> , 2008, 14, 221-229.	0.9	3
50	Theory of Fine Sediment Infiltration into Immobile Gravel Bed. <i>Journal of Hydraulic Engineering</i> , 2008, 134, 1421-1429.	1.5	47
51	Simulating Sediment Transport in a Flume with Forced Pool-Riffle Morphology: Examinations of Two One-Dimensional Numerical Models. <i>Journal of Hydraulic Engineering</i> , 2008, 134, 892-904.	1.5	19
52	Interplay of sediment supply, river incision, and channel morphology revealed by the transient evolution of an experimental bedrock channel. <i>Journal of Geophysical Research</i> , 2007, 112, .	3.3	178
53	Do gravel bed river size distributions record channel network structure?. <i>Water Resources Research</i> , 2006, 42, .	4.2	67
54	The role of sediment in controlling steady-state bedrock channel slope: Implications of the saltation-abrasion incision model. <i>Geomorphology</i> , 2006, 82, 58-83.	2.6	173

#	ARTICLE	IF	CITATIONS
55	Field measurements of incision rates following bedrock exposure: Implications for process controls on the long profiles of valleys cut by rivers and debris flows. <i>Bulletin of the Geological Society of America</i> , 2005, 117, 174.	3.3	130
56	A mechanistic model for river incision into bedrock by saltating bed load. <i>Water Resources Research</i> , 2004, 40, .	4.2	560
57	A method for quantifying vulnerability, applied to the agricultural system of the Yaqui Valley, Mexico. <i>Global Environmental Change</i> , 2003, 13, 255-267.	7.8	428
58	Sediment and rock strength controls on river incision into bedrock. <i>Geology</i> , 2001, 29, 1087.	4.4	633
59	Hillslope evolution by nonlinear creep and landsliding: An experimental study. <i>Geology</i> , 2001, 29, 143.	4.4	164
60	River longitudinal profiles and bedrock incision models: Stream power and the influence of sediment supply. <i>Geophysical Monograph Series</i> , 1998, , 237-260.	0.1	336
61	Geomorphic Transport Laws for Predicting Landscape form and Dynamics. <i>Geophysical Monograph Series</i> , 0, , 103-132.	0.1	234