Simon M. Mudd

List of Publications by Year
in descending order

88 papers	5,654 citations	41 h-index	72 g-index
116 all docs	116 docs citations	116 times ranked	4677 citing authors

71102
82547

#	Article	IF	Citations
1	Beyond the Long Profile. , 2022, , 22-52.		4
2	Continuous measurements of valley floor width in mountainous landscapes. Earth Surface Dynamics, 2022, 10, 437-456.	2.4	7
3	Impact of climate on landscape form, sediment transfer and the sedimentary record. Earth Surface Processes and Landforms, 2021, 46, 990-1006.	2.5	14
4	Salt Marsh Hydrodynamics. , 2021, , 53-81.		7
5	Hilltop Curvature Increases With the Square Root of Erosion Rate. Journal of Geophysical Research F: Earth Surface, 2021, 126, e2020JF005858.	2.8	8
6	Progressive evolution of thrust fold topography in the frontal Himalaya. Geomorphology, 2021, 384, 107717.	2.6	10
7	Seasonal fluxes and sediment routing in tropical catchments affected by nickel mining. Earth Surface Processes and Landforms, 2021, 46, 2632-2655.	2.5	1
8	Isolating Lithologic Versus Tectonic Signals of River Profiles to Test Orogenic Models for the Eastern and Southeastern Carpathians. Journal of Geophysical Research F: Earth Surface, 2021, 126, e2020JF005970.	2.8	11
9	Impact of Changing Concavity Indices on Channel Steepness and Divide Migration Metrics. Journal of Geophysical Research F: Earth Surface, 2021, 126, e2020JF006060.	2.8	24
10	Differences in channel and hillslope geometry record a migrating uplift wave at the Mendocino triple junction, California, USA. Geology, 2020, 48, 184-188.	4.4	18
11	Detecting the Morphology of Prograding and Retreating Marsh Marginsâ€"Example of a Mega-Tidal Bay. Remote Sensing, 2020, 12, 13.	4.0	7
12	Linking life and landscape with remote sensing. Developments in Earth Surface Processes, 2020, 23, 129-182.	2.8	0
13	Spatial distribution of water and wind erosion and their influence on the soil quality at the agropastoral ecotone of North China. International Soil and Water Conservation Research, 2020, 8, 253-265.	6.5	18
14	Topographic data from satellites. Developments in Earth Surface Processes, 2020, 23, 91-128.	2.8	16
15	Reproducible topographic analysis. Developments in Earth Surface Processes, 2020, 23, 339-367.	2.8	2
16	Detection of channel-hillslope coupling along a tectonic gradient. Earth and Planetary Science Letters, 2019, 522, 30-39.	4.4	20
17	Arable soil formation and erosion: a hillslope-based cosmogenic nuclide study in the United Kingdom. Soil, 2019, 5, 253-263.	4.9	22
18	Lithological control on the geomorphic evolution of the Shillong Plateau in Northeast India. Geomorphology, 2019, 330, 133-150.	2.6	18

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19	Lithological control on the post-orogenic topography and erosion history of the Pyrenees. Earth and Planetary Science Letters, 2019, 518, 53-66.	4.4	43
20	Detrital cosmogenic 21Ne records decoupling of source-to-sink signals by sediment storage and recycling in Miocene to present rivers of the Great Plains, Nebraska, USA. Geology, 2019, 47, 3-6.	4.4	14
21	A segmentation approach for the reproducible extraction and quantification of knickpoints from river long profiles. Earth Surface Dynamics, 2019, 7, 211-230.	2.4	48
22	High Platform Elevations Highlight the Role of Storms and Spring Tides in Salt Marsh Evolution. Frontiers in Environmental Science, 2019, 7, .	3.3	11
23	Storage and export of soil carbon and mineral surface area along an erosional gradient in the Sierra Nevada, California. Geoderma, 2018, 321, 151-163.	5.1	11
24	Source-to-sink constraints on tectonic and sedimentary evolution of the western Central Range and Cenderawasih Bay (Indonesia). Journal of Asian Earth Sciences, 2018, 156, 265-287.	2.3	17
25	Sediment accumulation in embayments controlled by bathymetric slope and wave energy: Implications for beach formation and persistence. Earth Surface Processes and Landforms, 2018, 43, 2421-2434.	2.5	10
26	Controls on Zeroâ€Order Basin Morphology. Journal of Geophysical Research F: Earth Surface, 2018, 123, 3269.	2.8	10
27	How concave are river channels?. Earth Surface Dynamics, 2018, 6, 505-523.	2.4	70
28	Unsupervised detection of salt marsh platforms: a topographic method. Earth Surface Dynamics, 2018, 6, 239-255.	2.4	12
29	Does soil erosion rejuvenate the soil phosphorus inventory?. Geoderma, 2018, 332, 45-59.	5.1	25
30	OCTOPUS: an open cosmogenic isotope and luminescence database. Earth System Science Data, 2018, 10, 2123-2139.	9.9	55
31	Detection of transience in eroding landscapes. Earth Surface Processes and Landforms, 2017, 42, 24-41.	2.5	52
32	Squeezing river catchments through tectonics: Shortening and erosion across the Indus Valley, NW Himalaya. Bulletin of the Geological Society of America, 2017, 129, 203-217.	3.3	19
33	Geomorphometric delineation of floodplains and terraces from objectively defined topographic thresholds. Earth Surface Dynamics, 2017, 5, 369-385.	2.4	53
34	DELINEATING FLOODPLAINS AND TERRACES FROM OBJECTIVELY DEFINED TOPOGRAPHIC THRESHOLDS. , 2017, , .		1
35	The CAIRN method: automated, reproducible calculation of catchment-averaged denudation rates from cosmogenic nuclide concentrations. Earth Surface Dynamics, 2016, 4, 655-674.	2.4	47
36	How does grid-resolution modulate the topographic expression of geomorphic processes?. Earth Surface Dynamics, 2016, 4, 627-653.	2.4	48

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37	A nondimensional framework for exploring the relief structure of landscapes. Earth Surface Dynamics, 2016, 4, 309-325.	2.4	37
38	The relationship between drainage density, erosion rate, and hilltop curvature: Implications for sediment transport processes. Journal of Geophysical Research F: Earth Surface, 2016, 121, 1724-1745.	2.8	44
39	Colluvium supply in humid regions limits the frequency of storm-triggered landslides. Scientific Reports, 2016, 6, 34438.	3.3	46
40	Global analysis of the stream power law parameters based on worldwide 10Be denudation rates. Geomorphology, 2016, 268, 184-196.	2.6	183
41	How long is a hillslope?. Earth Surface Processes and Landforms, 2016, 41, 1039-1054.	2.5	52
42	Salt Marsh Ecosystems: Tidal Flow, Vegetation, and Carbon Dynamics. , 2016, , 407-434.		2
43	Prediction of flash flood hazard impact from Himalayan river profiles. Geophysical Research Letters, 2015, 42, 5888-5894.	4.0	36
44	Reply to comment by <scp>P</scp>. <scp>P</scp>assalacqua and <scp>E</scp>. <scp>F</scp>oufoulaâ€<scp>G</scp>eorgiou on â€œObjective extraction of channel heads from highâ€resolution topographic dataâ€. Water Resources Research, 2015, 51, 1377-1379.	4.2	3
45	Local topography and erosion rate control regolith thickness along a ridgeline in the Sierra Nevada, California. Earth Surface Processes and Landforms, 2015, 40, 1779-1790.	2.5	14
46	Impact of change in erosion rate and landscape steepness on hillslope and fluvial sediments grain size in the Feather River basin (Sierra Nevada, California). Earth Surface Dynamics, 2015, 3, 201-222.	2.4	110
47	Topographic roughness as a signature of the emergence of bedrock in eroding landscapes. Earth Surface Dynamics, 2015, 3, 483-499.	2.4	35
48	Erosion rates as a potential bottomâ€up control of forest structural characteristics in the Sierra Nevada Mountains. Ecology, 2015, 96, 31-38.	3.2	40
49	Quantifying the rate and depth dependence of bioturbation based on opticallyâ€stimulated luminescence (OSL) dates and meteoric ¹⁰Be. Earth Surface Processes and Landforms, 2014, 39, 1188-1196.	2.5	77
50	Quantifying Geomorphic Controls on Time in Weathering Systems. Procedia Earth and Planetary Science, 2014, 10, 249-253.	0.6	1
51	Objective extraction of channel heads from high-resolution topographic data. Water Resources Research, 2014, 50, 4283-4304.	4.2	123
52	A statistical framework to quantify spatial variation in channel gradients using the integral method of channel profile analysis. Journal of Geophysical Research F: Earth Surface, 2014, 119, 138-152.	2.8	147
53	7.5 Influence of Chemical Weathering on Hillslope Forms. , 2013, , 56-65.		1
54	Hillslopes Record the Growth and Decay of Landscapes. Science, 2013, 341, 868-871.	12.6	62

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55	Influence of lithology on hillslope morphology and response to tectonic forcing in the northern Sierra Nevada of California. Journal of Geophysical Research F: Earth Surface, 2013, 118, 832-851.	2.8	63
56	Short Communication: Humans and the missing C-sink: erosion and burial of soil carbon through time. Earth Surface Dynamics, 2013, 1, 45-52.	2.4	43
57	Response of salt-marsh carbon accumulation to climate change. Nature, 2012, 489, 550-553.	27.8	257
58	Reconstruction of a major storm event from its geomorphic signature: The Ladakh floods, 6 August 2010. Geology, 2012, 40, 483-486.	4.4	59
59	Numerical models of salt marsh evolution: Ecological, geomorphic, and climatic factors. Reviews of Geophysics, 2012, 50, .	23.0	511
60	Assessing the significance of soil erosion. Transactions of the Institute of British Geographers, 2012, 37, 342-345.	2.9	15
61	Using hilltop curvature to derive the spatial distribution of erosion rates. Journal of Geophysical Research, 2012, 117, .	3.3	131
62	Limits of windthrow-driven hillslope sediment flux due to varying storm frequency and intensity. Geomorphology, 2012, 175-176, 66-73.	2.6	33
63	Field experiments constraining the probability distribution of particle travel distances during natural rainstorms on different slope gradients. Earth Surface Processes and Landforms, 2012, 37, 473-485.	2.5	20
64	Field calibration of sediment flux dependent river incision. Journal of Geophysical Research, 2011, 116, .	3.3	49
65	Dynamic response of marshes to perturbations in suspended sediment concentrations and rates of relative sea level rise. Journal of Geophysical Research, 2011, 116, .	3.3	77
66	Evolution of hillslope soils: The geomorphic theater and the geochemical play. Applied Geochemistry, 2011, 26, S149-S153.	3.0	29
67	The life and death of salt marshes in response to anthropogenic disturbance of sediment supply. Geology, 2011, 39, 511-512.	4.4	52
68	A rain splash transport equation assimilating field and laboratory measurements. Journal of Geophysical Research, 2010, 115, .	3.3	75
69	Bedrock erosion by root fracture and tree throw: A coupled biogeomorphic model to explore the humped soil production function and the persistence of hillslope soils. Journal of Geophysical Research, 2010, 115, .	3.3	99
70	How does vegetation affect sedimentation on tidal marshes? Investigating particle capture and hydrodynamic controls on biologically mediated sedimentation. Journal of Geophysical Research, 2010, 115, .	3.3	230
71	Reservoir theory for studying the geochemical evolution of soils. Journal of Geophysical Research, 2010, 115, .	3.3	44
72	Limits on the adaptability of coastal marshes to rising sea level. Geophysical Research Letters, 2010, 37, .	4.0	613

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73	Impact of dynamic feedbacks between sedimentation, sea-level rise, and biomass production on near-surface marsh stratigraphy and carbon accumulation. Estuarine, Coastal and Shelf Science, 2009, 82, 377-389.	2.1	253
74	The Gamburtsev mountains and the origin and early evolution of the Antarctic Ice Sheet. Nature, 2009, 459, 690-693.	27.8	150
75	Spatial patterns and controls of soil chemical weathering rates along a transient hillslope. Earth and Planetary Science Letters, 2009, 288, 184-193.	4.4	47
76	A theoretical model coupling chemical weathering rates with denudation rates. Geology, 2009, 37, 151-154.	4.4	191
77	Toward process-based modeling of geochemical soil formation across diverse landforms: A new mathematical framework. Geoderma, 2008, 146, 248-260.	5.1	70
78	Discrepancy between mineral residence time and soil age: Implications for the interpretation of chemical weathering rates. Geology, 2008, 36, 35.	4.4	76
79	Reply to â€œComment on â€˜Investigation of the hydrodynamics of flash floods in ephemeral channels: Scaling analysis and simulation using a shock-capturing flow model incorporating the effects of transmission lossesâ€™ by S.M. Mudd, 2006 (Journal of Hydrology) 324, 65â€“79â€•by Cao and Yue. Journal of Hydrology, 2007, 336, 226-230.	5.4	0
80	Rain splash of dry sand revealed by high-speed imaging and sticky paper splash targets. Journal of Geophysical Research, 2007, 112, .	3.3	107
81	Responses of soil-mantled hillslopes to transient channel incision rates. Journal of Geophysical Research, 2007, 112, .	3.3	56
82	Using chemical tracers in hillslope soils to estimate the importance of chemical denudation under conditions of downslope sediment transport. Journal of Geophysical Research, 2006, 111, .	3.3	41
83	The mobilization of debris flows from shallow landslides. Geomorphology, 2006, 74, 207-218.	2.6	147
84	Investigation of the hydrodynamics of flash floods in ephemeral channels: Scaling analysis and simulation using a shock-capturing flow model incorporating the effects of transmission losses. Journal of Hydrology, 2006, 324, 65-79.	5.4	50
85	Modeling the influence of hydroperiod and vegetation on the cross-sectional formation of tidal channels. Estuarine, Coastal and Shelf Science, 2006, 69, 311-324.	2.1	143
86	Lateral migration of hillcrests in response to channel incision in soil-mantled landscapes. Journal of Geophysical Research, 2005, 110, n/a-n/a.	3.3	35
87	Influence of chemical denudation on hillslope morphology. Journal of Geophysical Research, 2004, 109, n/a-n/a.	3.3	48
88	Flow, Sedimentation, and Biomass Production on a Vegetated Salt Marsh in South Carolina: Toward a Predictive Model of Marsh Morphologic and Ecologic Evolution. Coastal and Estuarine Studies, 0, , 165-188.	0.4	60