

Jens M Turowski

List of Publications by Year in descending order

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Version: 2024-02-01

91
papers

4,412
citations

101543

36
h-index

123424

61
g-index

180
all docs

180
docs citations

180
times ranked

2710
citing authors

#	ARTICLE	IF	CITATIONS
1	Influence of Rarely Mobile Boulders on Channel Width and Slope: Theory and Field Application. <i>Journal of Geophysical Research F: Earth Surface</i> , 2022, 127, .	2.8	5
2	Constraining tectonic uplift and advection from the main drainage divide of a mountain belt. <i>Nature Communications</i> , 2021, 12, 544.	12.8	28
3	Grain Size Distribution and Propagation Effects on Seismic Signals Generated by Bedload Transport. <i>Water Resources Research</i> , 2021, 57, e2020WR028700.	4.2	9
4	Upscaling Sediment Flux-Dependent Fluvial Bedrock Incision to Long Timescales. <i>Journal of Geophysical Research F: Earth Surface</i> , 2021, 126, e2020JF005880.	2.8	13
5	Controls on the grain size distribution of landslides in Taiwan: the influence of drop height, scar depth and bedrock strength. <i>Earth Surface Dynamics</i> , 2021, 9, 995-1011.	2.4	9
6	From Process to Centuries: Upscaling Field-Calibrated Models of Fluvial Bedrock Erosion. <i>Geophysical Research Letters</i> , 2021, 48, e2021GL093415.	4.0	2
7	The effect of roughness spacing and size on lateral deflection of bedload particles. <i>Water Resources Research</i> , 2021, 57, e2021WR029717.	4.2	3
8	The role of infrequently mobile boulders in modulating landscape evolution and geomorphic hazards. <i>Earth-Science Reviews</i> , 2021, 220, 103717.	9.1	28
9	Concentration-Discharge Relationships of Dissolved Rhenium in Alpine Catchments Reveal Its Use as a Tracer of Oxidative Weathering. <i>Water Resources Research</i> , 2021, 57, e2021WR029844.	4.2	13
10	Site Dependence of Fluvial Incision Rate Scaling With Timescale. <i>Journal of Geophysical Research F: Earth Surface</i> , 2020, 125, e2020JF005808.	2.8	3
11	Width control on event-scale deposition and evacuation of sediment in bedrock-confined channels. <i>Earth Surface Processes and Landforms</i> , 2020, 45, 3702-3713.	2.5	12
12	Seismic Monitoring of a Subarctic River: Seasonal Variations in Hydraulics, Sediment Transport, and Ice Dynamics. <i>Journal of Geophysical Research F: Earth Surface</i> , 2020, 125, e2019JF005333.	2.8	12
13	Mass balance, grade, and adjustment timescales in bedrock channels. <i>Earth Surface Dynamics</i> , 2020, 8, 103-122.	2.4	24
14	Controls on the lateral channel-migration rate of braided channel systems in coarse non-cohesive sediment. <i>Earth Surface Processes and Landforms</i> , 2019, 44, 2823-2836.	2.5	31
15	Joint Sensing of Bedload Flux and Water Depth by Seismic Data Inversion. <i>Water Resources Research</i> , 2019, 55, 9892-9904.	4.2	19
16	Inferring the timing of abandonment of aggraded alluvial surfaces dated with cosmogenic nuclides. <i>Earth Surface Dynamics</i> , 2019, 7, 755-771.	2.4	14
17	Preservation of organic carbon during active fluvial transport and particle abrasion. <i>Geology</i> , 2019, 47, 958-962.	4.4	25
18	Testing models of step formation against observations of channel steps in a steep mountain stream. <i>Earth Surface Processes and Landforms</i> , 2019, 44, 1390-1406.	2.5	27

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19	Long-term erosion of the Nepal Himalayas by bedrock landsliding: the role of monsoons, earthquakes and giant landslides. <i>Earth Surface Dynamics</i> , 2019, 7, 107-128.	2.4	85
20	History-Dependent Threshold for Motion Revealed by Continuous Bedload Transport Measurements in a Steep Mountain Stream. <i>Geophysical Research Letters</i> , 2019, 46, 2583-2591.	4.0	46
21	Dynamics of the Askja caldera July 2014 landslide, Iceland, from seismic signal analysis: precursor, motion and aftermath. <i>Earth Surface Dynamics</i> , 2018, 6, 467-485.	2.4	34
22	Alluvial cover controlling the width, slope and sinuosity of bedrock channels. <i>Earth Surface Dynamics</i> , 2018, 6, 29-48.	2.4	39
23	Controls and feedbacks in the coupling of mountain channels and hillslopes. <i>Geology</i> , 2017, 45, 307-310.	4.4	36
24	Bed load transport and boundary roughness changes as competing causes of hysteresis in the relationship between river discharge and seismic amplitude recorded near a steep mountain stream. <i>Journal of Geophysical Research F: Earth Surface</i> , 2017, 122, 1182-1200.	2.8	28
25	Spatial patterns of erosion in a bedrock gorge. <i>Journal of Geophysical Research F: Earth Surface</i> , 2017, 122, 191-214.	2.8	64
26	Field techniques for measuring bedrock erosion and denudation. <i>Earth Surface Processes and Landforms</i> , 2017, 42, 109-127.	2.5	26
27	Spatiotemporal patterns, triggers and anatomies of seismically detected rockfalls. <i>Earth Surface Dynamics</i> , 2017, 5, 757-779.	2.4	33
28	A probabilistic framework for the cover effect in bedrock erosion. <i>Earth Surface Dynamics</i> , 2017, 5, 311-330.	2.4	24
29	Deriving principal channel metrics from bank and long-profile geometry with the R package cmgo. <i>Earth Surface Dynamics</i> , 2017, 5, 557-570.	2.4	17
30	DebrisInterMixing-2.3: a finite volume solver for three-dimensional debris-flow simulations with two calibration parameters – Part 2: Model validation with experiments. <i>Geoscientific Model Development</i> , 2017, 10, 3963-3978.	3.6	20
31	Testing seismic amplitude source location for fast debris-flow detection at Illgraben, Switzerland. <i>Natural Hazards and Earth System Sciences</i> , 2017, 17, 939-955.	3.6	55
32	Seismic monitoring of small alpine rockfalls – validity, precision and limitations. <i>Earth Surface Dynamics</i> , 2017, 5, 653-668.	2.4	42
33	DebrisInterMixing-2.3: a finite volume solver for three-dimensional debris-flow simulations with two calibration parameters – Part 1: Model description. <i>Geoscientific Model Development</i> , 2016, 9, 2909-2923.	3.6	44
34	Seismic monitoring of torrential and fluvial processes. <i>Earth Surface Dynamics</i> , 2016, 4, 285-307.	2.4	63
35	Graffiti for science – erosion painting reveals spatially variable erosivity of sediment-laden flows. <i>Earth Surface Dynamics</i> , 2016, 4, 885-894.	2.4	9
36	Bed load transport in a very steep mountain stream (Riedbach, Switzerland): Measurement and prediction. <i>Water Resources Research</i> , 2016, 52, 9522-9541.	4.2	29

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37	Laboratory flume experiments with the Swiss plate geophone bed load monitoring system: 1. Impulse counts and particle size identification. <i>Water Resources Research</i> , 2016, 52, 7744-7759.	4.2	35
38	Laboratory flume experiments with the Swiss plate geophone bed load monitoring system: 2. Application to field sites with direct bed load samples. <i>Water Resources Research</i> , 2016, 52, 7760-7778.	4.2	38
39	Bed load sediment transport inferred from seismic signals near a river. <i>Journal of Geophysical Research F: Earth Surface</i> , 2016, 121, 725-747.	2.8	73
40	Measurements of coarse particulate organic matter transport in steep mountain streams and estimates of decadal CPOM exports. <i>Journal of Hydrology</i> , 2016, 539, 162-176.	5.4	12
41	A probabilistic formulation of bed load transport to include spatial variability of flow and surface grain size distributions. <i>Water Resources Research</i> , 2016, 52, 3579-3598.	4.2	24
42	Measuring Bed Load Transport Rates by Grain-Size Fraction Using the Swiss Plate Geophone Signal at the Erlenbach. <i>Journal of Hydraulic Engineering</i> , 2016, 142, .	1.5	59
43	The influence of sediment thickness on energy delivery to the bed by bedload impacts. <i>Geodinamica Acta</i> , 2016, 28, 199-208.	2.2	11
44	Decadal carbon discharge by a mountain stream is dominated by coarse organic matter. <i>Geology</i> , 2016, 44, 27-30.	4.4	45
45	Grain size effects on energy delivery to the streambed and links to bedrock erosion. <i>Geophysical Research Letters</i> , 2015, 42, 1775-1780.	4.0	37
46	Applicability of bed load transport models for mixed-size sediments in steep streams considering macro-roughness. <i>Water Resources Research</i> , 2015, 51, 5260-5283.	4.2	63
47	Self-adjustment of stream bed roughness and flow velocity in a steep mountain channel. <i>Water Resources Research</i> , 2015, 51, 7838-7859.	4.2	45
48	Monsoonal hillslope processes determine grain size-specific suspended sediment fluxes in a trans-Himalayan river. <i>Geophysical Research Letters</i> , 2015, 42, 2302-2308.	4.0	32
49	Morphodynamics of steep mountain channels. <i>Earth Surface Processes and Landforms</i> , 2015, 40, 1560-1562.	2.5	9
50	Field instrumentation for high-resolution parallel monitoring of bedrock erosion and bedload transport. <i>Earth Surface Processes and Landforms</i> , 2015, 40, 530-541.	2.5	22
51	Climate change impacts on bedload transport in alpine drainage basins with hydropower exploitation. <i>Earth Surface Processes and Landforms</i> , 2015, 40, 1587-1599.	2.5	23
52	The role of log jams and exceptional flood events in mobilizing coarse particulate organic matter in a steep headwater stream. <i>Earth Surface Dynamics</i> , 2015, 3, 311-320.	2.4	32
53	Calculation of bedload transport in Swiss mountain rivers using the model sedFlow: proof of concept. <i>Earth Surface Dynamics</i> , 2015, 3, 35-54.	2.4	10
54	sedFlow – a tool for simulating fractional bedload transport and longitudinal profile evolution in mountain streams. <i>Earth Surface Dynamics</i> , 2015, 3, 15-34.	2.4	16

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55	Bedload transport controls bedrock erosion under sediment-starved conditions. <i>Earth Surface Dynamics</i> , 2015, 3, 291-309.	2.4	35
56	Assessing the impact of climate change on brown trout (<i>Salmo trutta fario</i>) recruitment. <i>Hydrobiologia</i> , 2015, 751, 1-21.	2.0	18
57	Damage costs due to bedload transport processes in Switzerland. <i>Natural Hazards and Earth System Sciences</i> , 2014, 14, 279-294.	3.6	64
58	Seismic constraints on dynamic links between geomorphic processes and routing of sediment in a steep mountain catchment. <i>Earth Surface Dynamics</i> , 2014, 2, 21-33.	2.4	44
59	River gorge eradication by downstream sweep erosion. <i>Nature Geoscience</i> , 2014, 7, 682-686.	12.9	63
60	Bedload transport measurements with impact plate geophones: comparison of sensor calibration in different gravel-bed streams. <i>Earth Surface Processes and Landforms</i> , 2014, 39, 928-942.	2.5	105
61	Scaling relationships between bed load volumes, transport distances, and stream power in steep mountain channels. <i>Journal of Geophysical Research F: Earth Surface</i> , 2014, 119, 533-549.	2.8	64
62	Runoff-driven export of particulate organic carbon from soil in temperate forested uplands. <i>Earth and Planetary Science Letters</i> , 2013, 365, 198-208.	4.4	77
63	Field measurements of the energy delivered to the channel bed by moving bed load and links to bedrock erosion. <i>Journal of Geophysical Research F: Earth Surface</i> , 2013, 118, 2438-2450.	2.8	32
64	Upstream-facing convex surfaces: Bedrock bedforms produced by fluvial bedload abrasion. <i>Geomorphology</i> , 2013, 180-181, 187-204.	2.6	30
65	A demonstration of the importance of bedload transport for fluvial bedrock erosion and knickpoint propagation. <i>Earth Surface Processes and Landforms</i> , 2013, 38, 683-695.	2.5	156
66	Range imaging: a new method for high-resolution topographic measurements in small and medium scale field sites. <i>Earth Surface Processes and Landforms</i> , 2013, 38, 810-825.	2.5	20
67	Large floods, alluvial overprint, and bedrock erosion. <i>Earth Surface Processes and Landforms</i> , 2013, 38, 947-958.	2.5	51
68	The mass distribution of coarse particulate organic matter exported from an Alpine headwater stream. <i>Earth Surface Dynamics</i> , 2013, 1, 1-11.	2.4	38
69	Sediment supply, grain protrusion, and bedload transport in mountain streams. <i>Geophysical Research Letters</i> , 2012, 39, .	4.0	75
70	Disturbance regimes at the interface of geomorphology and ecology. <i>Earth Surface Processes and Landforms</i> , 2012, 37, 1678-1682.	2.5	20
71	Macroroughness and variations in reach-averaged flow resistance in steep mountain streams. <i>Water Resources Research</i> , 2012, 48, .	4.2	64
72	Rainfall intensity-duration thresholds for bedload transport initiation in small Alpine watersheds. <i>Natural Hazards and Earth System Sciences</i> , 2012, 12, 3091-3108.	3.6	27

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73	Bedload transport measurements at the Erlenbach stream with geophones and automated basket samplers. <i>Earth Surface Processes and Landforms</i> , 2012, 37, 1000-1011.	2.5	163
74	Start and end of bedload transport in gravel-bed streams. <i>Geophysical Research Letters</i> , 2011, 38, n/a-n/a.	4.0	125
75	Probability distributions for bed form-dominated bed load transport: The Hamamori distribution revisited. <i>Journal of Geophysical Research</i> , 2011, 116, .	3.3	9
76	Evaluation of bedload transport predictions using flow resistance equations to account for macro-roughness in steep mountain streams. <i>Water Resources Research</i> , 2011, 47, .	4.2	118
77	Sediment transport modelling in a distributed physically based hydrological catchment model. <i>Hydrology and Earth System Sciences</i> , 2011, 15, 2821-2837.	4.9	17
78	Measuring the Statistics of Bed-Load Transport Using Indirect Sensors. <i>Journal of Hydraulic Engineering</i> , 2011, 137, 116-121.	1.5	23
79	The partitioning of the total sediment load of a river into suspended load and bedload: a review of empirical data. <i>Sedimentology</i> , 2010, 57, 1126-1146.	3.1	236
80	Probability distributions of bed load transport rates: A new derivation and comparison with field data. <i>Water Resources Research</i> , 2010, 46, .	4.2	37
81	Analysis of changes in the step-pool morphology and channel profile of a steep mountain stream following a large flood. <i>Geomorphology</i> , 2010, 124, 85-94.	2.6	103
82	Tools and cover effects in bedload transport observations in the Pitzbach, Austria. <i>Earth Surface Processes and Landforms</i> , 2009, 34, 26-37.	2.5	94
83	The impact of exceptional events on erosion, bedload transport and channel stability in a step-pool channel. <i>Earth Surface Processes and Landforms</i> , 2009, 34, 1661-1673.	2.5	202
84	Response of bedrock channel width to tectonic forcing: Insights from a numerical model, theoretical considerations, and comparison with field data. <i>Journal of Geophysical Research</i> , 2009, 114, .	3.3	73
85	Stochastic modeling of the cover effect and bedrock erosion. <i>Water Resources Research</i> , 2009, 45, .	4.2	33
86	Distribution of erosion across bedrock channels. <i>Earth Surface Processes and Landforms</i> , 2008, 33, 353-363.	2.5	134
87	Recent volcano-ice interaction and outburst flooding in a Mars polar cap re-entrant. <i>Icarus</i> , 2008, 197, 24-38.	2.5	28
88	Hydraulic geometry, river sediment and the definition of bedrock channels. <i>Geomorphology</i> , 2008, 99, 26-38.	2.6	145
89	Cover effect in bedrock abrasion: A new derivation and its implications for the modeling of bedrock channel morphology. <i>Journal of Geophysical Research</i> , 2007, 112, .	3.3	184
90	Experimental channel response to tectonic uplift. <i>Journal of Geophysical Research</i> , 2006, 111, n/a-n/a.	3.3	76

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91	IN SITU MEASUREMENT OF BEDROCK EROSION. International Archives of the Photogrammetry, Remote Sensing and Spatial Information Sciences - ISPRS Archives, 0, XXXIX-B5, 429-433.	0.2	5