Marwan A Hassan

List of Publications by Year
in descending order

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137 papers	5,576 citations	71102 41 h-index	91884 69 g-index
144 all docs	144 docs citations	144 times ranked	3073 citing authors

#	Article	IF	Citations
1	Stabilizing self-organized structures in gravel-bed stream channels: Field and experimental observations. Water Resources Research, 1998, 34, 3169-3179.	4.2	291
2	Landslide inventory in a rugged forested watershed: a comparison between air-photo and field survey data. Geomorphology, 2003, 54, 179-196.	2.6	189
3	Size and distance of travel of unconstrained clasts on a streambed. Water Resources Research, 1992, 28, 299-303.	4.2	163
4	Virtual rate and mean distance of travel of individual clasts in gravel-bed channels. Earth Surface Processes and Landforms, 1992, 17, 617-627.	2.5	163
5	GEOMORPHOLOGY OF STEEPLAND HEADWATERS: THE TRANSITION FROM HILLSLOPES TO CHANNELS. Journal of the American Water Resources Association, 2005, 41, 835-851.	2.4	163
6	The influence of microform bed roughness elements on flow and sediment transport in gravel bed rivers. Earth Surface Processes and Landforms, 1990, 15, 739-750.	2.5	153
7	Distance of movement of coarse particles in gravel bed streams. Water Resources Research, 1991, 27, 503-511.	4.2	148
8	Experiments on the effect of hydrograph characteristics on vertical grain sorting in gravel bed rivers. Water Resources Research, 2006, 42, .	4.2	147
9	Experiments on surface structure and partial sediment transport on a gravel bed. Water Resources Research, 2000, 36, 1885-1895.	4.2	131
10	SEDIMENT TRANSPORT AND CHANNEL MORPHOLOGY OF SMALL, FORESTED STREAMS. Journal of the American Water Resources Association, 2005, 41, 853-876.	2.4	131
11	GEOMORPHOLOGY OF STEEPLAND HEADWATERS: THE TRANSITION FROM HILLSLOPES TO CHANNELS. Journal of the American Water Resources Association, 2005, 41, 835-851.	2.4	127
12	FREQUENCY AND MAGNITUDE OF BEDLOAD TRANSPORT IN A MOUNTAIN RIVER. Earth Surface Processes and Landforms, 1996, 21, 433-445.	2.5	122
13	Mobility of bed material in Harris Creek. Water Resources Research, 2002, 38, 19-1-19-12.	4.2	115
14	Stepâ€pool stability: Testing the jammed state hypothesis. Journal of Geophysical Research, 2010, 115, .	3.3	115
15	Scour, fill, and burial depth of coarse material in gravel bed streams. Earth Surface Processes and Landforms, 1990, 15, 341-356.	2.5	112
16	Fluvial clastic sediment yield in Canada: scaled analysis. Canadian Journal of Earth Sciences, 1999, 36, 1267-1280.	1.3	108
17	Glacial erosion, evolution of river long profiles, and the organization of process domains in mountain drainage basins of coastal British Columbia. Journal of Geophysical Research, 2006, 111, .	3.3	100
18	SUSPENDED SEDIMENT DYNAMICS IN SMALL FOREST STREAMS OF THE PACIFIC NORTHWEST. Journal of the American Water Resources Association, 2005, 41, 877-898.	2.4	99

#	Article	IF	Citations
19	SPATIAL AND TEMPORAL DYNAMICS OF WOOD IN HEADWATER STREAMS OF THE PACIFIC NORTHWEST. Journal of the American Water Resources Association, 2005, 41, 899-919.	2.4	98
20	Salmonâ€driven bed load transport and bed morphology in mountain streams. Geophysical Research Letters, 2008, 35, .	4.0	88
21	Vertical mixing of coarse particles in gravel bed rivers: A kinematic model. Water Resources Research, 1994, 30, 1173-1185.	4.2	86
22	SPATIAL AND TEMPORAL DYNAMICS OF WOOD IN HEADWATER STREAMS OF THE PACIFIC NORTHWEST. Journal of the American Water Resources Association, 2005, 41, 899-919.	2.4	85
23	Displacement characteristics of coarse fluvial bed sediment. Journal of Geophysical Research F: Earth Surface, 2013, 118, 155-165.	2.8	82
24	Sensitivity of bed load transport in Harris Creek: Seasonal and spatial variation over a cobble-gravel bar. Water Resources Research, 2001, 37, 813-825.	4.2	76
25	SEDIMENT DISPERSION IN SALMON SPAWNING STREAMS: THE INFLUENCE OF FLOODS AND SALMON REDD CONSTRUCTION. Journal of the American Water Resources Association, 2004, 40, 1071-1086.	2.4	73
26	Identification of steps and pools from stream longitudinal profile data. Geomorphology, 2008, 102, 395-406.	2.6	70
27	The role of channel morphology on the mobility and dispersion of bed sediment in a small gravelâ€bed stream. Earth Surface Processes and Landforms, 2016, 41, 2191-2206.	2.5	67
28	Observations of desert flood bores. Earth Surface Processes and Landforms, 1990, 15, 481-485.	2.5	66
29	Morphodynamics of a Widthâ€Variable Gravel Bed Stream: New Insights on Poolâ€Riffle Formation From Physical Experiments. Journal of Geophysical Research F: Earth Surface, 2018, 123, 2735-2766.	2.8	59
30	Characteristics of Gravel Bars in Ephemeral Streams. Journal of Sedimentary Research, 2005, 75, 29-42.	1.6	56
31	Fluvial adjustment of the Lower Jordan River to a drop in the Dead Sea level. Geomorphology, 2002, 45, 21-33.	2.6	55
32	Bed load transport in an obstruction-formed pool in a forest, gravelbed stream. Geomorphology, 2004, 58, 203-221.	2.6	55
33	Effective discharge in small formerly glaciated mountain streams of British Columbia: Limitations and implications. Water Resources Research, 2014, 50, 4440-4458.	4.2	54
34	Temporal variability and memory in sediment transport in an experimental stepâ€pool channel. Water Resources Research, 2015, 51, 9325-9337.	4.2	53
35	The Origin of Fine Sediment Determines the Observations of Suspended Sediment Fluxes Under Unsteady Flow Conditions. Water Resources Research, 2018, 54, 5654-5669.	4.2	52
36	Glacially induced organization of channelâ€reach morphology in mountain streams. Journal of Geophysical Research, 2007, 112, .	3.3	50

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37	Impact of wastewater discharge on the channel morphology of ephemeral streams. Earth Surface Processes and Landforms, 2001, 26, 1285-1302.	2.5	48
38	Spatial and temporal variation of sediment yield in the landscape: Example of Huanghe (Yellow River). Geophysical Research Letters, 2008, 35, .	4.0	45
39	Abrupt drainage basin reorganization following a Pleistocene river capture. Nature Communications, 2018, 9, 3756.	12.8	45
40	A network model for prediction and diagnosis of sediment dynamics at the watershed scale. Journal of Geophysical Research, 2012, 117, .	3.3	42
41	On how spatial variations of channel width influence river profile curvature. Geophysical Research Letters, 2016, 43, 6313-6323.	4.0	42
42	Use of Tracers in Fluvial Geomorphology. , 2005, , 397-423.		41
43	The transport of gravel in an ephemeral sandbed river. Earth Surface Processes and Landforms, 1999, 24, 623-640.	2.5	40
44	A conceptual model for the blooming behavior and persistence of the benthic matâ€forming diatomDidymosphenia geminata in oligotrophic streams. Journal of Geophysical Research, 2012, 117, .	3.3	40
45	The Impact of Urbanization on Temporal Changes in Sediment Transport in a Gravel Bed Channel in Southern Ontario, Canada. Water Resources Research, 2017, 53, 8443-8458.	4.2	39
46	Experimental study on the stability and failure of individual step-pool. Geomorphology, 2018, 311, 51-62.	2.6	39
47	Complex mass wasting response of drainage basins to forest management in coastal British Columbia. Geomorphology, 2003, 49, 109-124.	2.6	37
48	Sediment residence time distributions: Theory and application from bed elevation measurements. Journal of Geophysical Research F: Earth Surface, 2013, 118, 2557-2567.	2.8	37
49	Videoâ€based gravel transport measurements with a flume mounted light table. Earth Surface Processes and Landforms, 2008, 33, 2285-2296.	2.5	36
50	Linking spatial patterns of bed surface texture, bed mobility, and channel hydraulics in a mountain stream to potential spawning substrate for small resident trout. Geomorphology, 2013, 197, 96-107.	2.6	33
51	A reduced-complexity model for sediment transport and step-pool morphology. Earth Surface Dynamics, 2016, 4, 549-566.	2.4	33
52	Simulation of individual particle movement in a gravel streambed. Earth Surface Processes and Landforms, 2002, 27, 81-97.	2.5	32
53	Spatial and temporal variation of inâ€reach suspended sediment dynamics along the mainstem of Changjiang (Yangtze River), China. Water Resources Research, 2010, 46, .	4.2	32
54	The effects of discharge and slope on hyporheic flow in stepâ€pool morphologies. Hydrological Processes, 2015, 29, 419-433.	2.6	32

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55	Wood dynamics in upland streams under different disturbance regimes. Earth Surface Processes and Landforms, 2013, 38, 1197-1209.	2.5	31
56	Reachâ€scale contributions of roadâ€surface sediment to the Honna River, Haida Gwaii, BC. Hydrological Processes, 2016, 30, 3450-3465.	2.6	30
57	Simulated wood budgets in two mountain streams. Geomorphology, 2016, 259, 119-133.	2.6	29
58	Modeling wood dynamics, jam formation, and sediment storage in a gravelâ€bed stream. Journal of Geophysical Research, 2012, 117, .	3.3	28
59	A lake sediment-based proxy of floods in the Rocky Mountain Front Ranges, Canada. Journal of Paleolimnology, 2011, 45, 137-149.	1.6	26
60	Influence of the sediment supply texture on morphological adjustments in gravelâ€bed rivers. Water Resources Research, 2014, 50, 8868-8890.	4.2	25
61	Experiment on temporal variation of bed load transport in response to changes in sediment supply in streams. Water Resources Research, 2017, 53, 763-778.	4.2	23
62	Influence of small- and large-scale variables on the chemical and isotopic compositions of urban rainwater, as illustrated by a case study in Ashdod, Israel. Journal of Geophysical Research, 2005, 110, .	3.3	22
63	Patterns, puzzles and people: implementing hydrologic synthesis. Hydrological Processes, 2011, 25, 3256-3266.	2.6	22
64	The relative stability of salmon redds and unspawned streambeds. Water Resources Research, 2015, 51, 6074-6092.	4.2	22
65	Variable hillslopeâ€channel coupling and channel characteristics of forested mountain streams in glaciated landscapes. Earth Surface Processes and Landforms, 2019, 44, 736-751.	2.5	21
66	Using LiDAR to characterize logjams in lowland rivers. Geomorphology, 2015, 246, 531-541.	2.6	20
67	18 Sediment storage and transport in coarse bed streams: scale considerations. Developments in Earth Surface Processes, 2007, 11, 473-496.	2.8	19
68	What are the contemporary sources of sediment in the Mississippi River?. Geophysical Research Letters, 2017, 44, 8919-8924.	4.0	19
69	Experiment on morphological and hydraulic adjustments of stepâ€pool unit to flow increase. Earth Surface Processes and Landforms, 2020, 45, 280-294.	2.5	19
70	Coâ€evolution of coarse grain structuring and bed roughness in response to episodic sediment supply in an experimental aggrading channel. Earth Surface Processes and Landforms, 2020, 45, 948-961.	2.5	19
71	Width variations control the development of grain structuring in steep stepâ€pool dominated streams: insight from flume experiments. Earth Surface Processes and Landforms, 2020, 45, 1430-1440.	2.5	19
72	The Effect of Episodic Sediment Supply on Bedload Variability and Sediment Mobility. Water Resources Research, 2018, 54, 6319-6335.	4.2	18

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73	Experimental Insights Into the Threshold of Motion in Alluvial Channels: Sediment Supply and Streambed State. Journal of Geophysical Research F: Earth Surface, 2020, 125, e2020JF005736.	2.8	18
74	Intraseasonalâ€toâ€Interannual Analysis of Discharge and Suspended Sediment Concentration Timeâ€Series of the Upper Changjiang (Yangtze River). Water Resources Research, 2021, 57, e2020WR029457.	4.2	18
75	Estimating suspended sediment concentrations in areas with limited hydrological data using a mixedâ€effects model. Hydrological Processes, 2012, 26, 3678-3688.	2.6	17
76	Calculating the Explicit Probability of Entrainment Based on Inertial Acceleration Measurements. Journal of Hydraulic Engineering, 2017, 143, 04016097.	1.5	17
77	Morphometrics of China's Loess Plateau: The spatial legacy of tectonics, climate, and loess deposition history. Geomorphology, 2020, 354, 107043.	2.6	16
78	Does small-bodied salmon spawning activity enhance streambed mobility?. Water Resources Research, 2015, 51, 7467-7484.	4.2	15
79	Spatial and temporal patterns of sediment storage over 45 years in Carnation Creek, BC, a previously glaciated mountain catchment. Earth Surface Processes and Landforms, 2019, 44, 1584-1601.	2.5	15
80	Poolâ€Riffle Adjustment Due to Changes in Flow and Sediment Supply. Water Resources Research, 2021, 57, e2020WR028048.	4.2	15
81	Bar structure in an arid ephemeral stream. Sedimentary Geology, 2009, 221, 57-70.	2.1	14
82	Channel adjustments to a succession of water pulses in gravel bed rivers. Water Resources Research, 2015, 51, 8773-8790.	4.2	14
83	Fluvial response to changes in the magnitude and frequency of sediment supply in a 1-D model. Earth Surface Dynamics, 2018, 6, 1041-1057.	2.4	14
84	Sensitivity of stoichiometric ratios in the Mississippi River to hydrologic variability. Journal of Geophysical Research G: Biogeosciences, 2014, 119, 1049-1062.	3.0	13
85	Poolâ€riffle sedimentation and surface texture trends in a gravel bed stream. Water Resources Research, 2015, 51, 8704-8728.	4.2	13
86	Rough Correlations: Metaâ€Analysis of Roughness Measures in Gravel Bed Rivers. Water Resources Research, 2020, 56, e2020WR027079.	4.2	13
87	Back to Einstein: Burialâ€Induced Threeâ€Range Diffusion in Fluvial Sediment Transport. Geophysical Research Letters, 2020, 47, e2020GL087440.	4.0	13
88	Quantifying sediment connectivity: Moving toward a holistic assessment through a mixed methods approach. Earth Surface Processes and Landforms, 2021, 46, 2501-2519.	2.5	13
89	Spatial organization of process domains in headwater drainage basins of a glaciated foothills region with complex longitudinal profiles. Water Resources Research, 2011, 47, .	4.2	12
90	Suspended sediment balance for the mainstem of Changjiang (Yangtze River) in the period 1964â€“1985. Hydrological Processes, 2011, 25, 2339-2353.	2.6	12

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91	Effects of glacial retreat on proglacial streams and riparian zones in the Coast and North Cascade Mountains. Earth Surface Processes and Landforms, 2014, 39, 351-365.	2.5	12
92	Response of Inâ€Stream Wood to Riparian Timber Harvesting: Field Observations and Longâ€Term Projections. Water Resources Research, 2020, 56, e2020WR027077.	4.2	11
93	Joint Stochastic Bedload Transport and Bed Elevation Model: Variance Regulation and Power Law Rests. Journal of Geophysical Research F: Earth Surface, 2020, 125, e2019JF005259.	2.8	11
94	Vertical exchange of coarse bedload in desert streams. Geological Society Special Publication, 1987, 35, 7-16.	1.3	10
95	Recent (1999-2003) Canadian research on contemporary processes of river erosion and sedimentation, and river mechanics. Hydrological Processes, 2005, 19, 265-283.	2.6	10
96	Scale-dependent interactions between wood and channel dynamics: Modeling jam formation and sediment storage in gravel-bed streams. Journal of Geophysical Research F: Earth Surface, 2013, 118, 2500-2508.	2.8	10
97	What controls the disequilibrium state of gravelâ€bed rivers?. Earth Surface Processes and Landforms, 2019, 44, 3020-3041.	2.5	10
98	The influence of channel morphology on bedload path lengths: Insights from a survival process model. Earth Surface Processes and Landforms, 2020, 45, 2982-2997.	2.5	10
99	Experimental study of sediment supply control on step formation, evolution, and stability. Earth Surface Dynamics, 2020, 8, 855-868.	2.4	10
100	Promise, performance and current limitations of a magnetic Bedload Movement Detector. Earth Surface Processes and Landforms, 2009, 34, 1022-1032.	2.5	9
101	Probabilistic Prediction and Forecast of Daily Suspended Sediment Concentration on the Upper Yangtze River. Journal of Geophysical Research F: Earth Surface, 2018, 123, 1982-2003.	2.8	9
102	Effect of stress history on sediment transport and channel adjustment in graded gravel-bed rivers. Earth Surface Dynamics, 2021, 9, 333-350.	2.4	9
103	On How Episodic Sediment Supply Influences the Evolution of Channel Morphology, Bedload Transport and Channel Stability in an Experimental Stepâ€Pool Channel. Water Resources Research, 2021, 57, e2020WR029133.	4.2	9
104	The Influence of Riparian Vegetation on the Sinuosity and Lateral Stability of Meandering Channels. Geophysical Research Letters, 2022, 49, .	4.0	9
105	Convolutional neural networks for image-based sediment detection applied to a large terrestrial and airborne dataset. Earth Surface Dynamics, 2022, 10, 349-366.	2.4	9
106	Development and Application of a Largeâ€Scale, Physically Based, Distributed Suspended Sediment Transport Model on the Fraser River Basin, British Columbia, Canada. Journal of Geophysical Research F: Earth Surface, 2018, 123, 2481-2508.	2.8	8
107	Locating suitable sites for the construction of underground dams using the subsurface flow simulation (SWAT model) and analytical network process (ANP) (case study: Daroongar watershed,) Tj ETQq1 1 0.784314 rgBT /Overlo		
108	Does variable channel morphology lead to dynamic salmon habitat?. Earth Surface Processes and Landforms, 2020, 45, 295-311.	2.5	8

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109	Characterization of morphological units in a small, forested stream using close-range remotely piloted aircraft imagery. Earth Surface Dynamics, 2020, 8, 913-929.	2.4	8
110	Sampling variability in estimates of flow characteristics in coarseâ€bed channels: Effects of sample size. Water Resources Research, 2016, 52, 1899-1922.	4.2	7
111	Einstein conjecture and resting-time statisticsÂinÂthe bed-load transport of monodispersedÂparticles. Journal of Fluid Mechanics, 2019, 876, 1077-1089.	3.4	7
112	A decadalâ€scale numerical model for wandering, cobbleâ€bedded rivers subject to disturbance. Earth Surface Processes and Landforms, 2020, 45, 912-927.	2.5	7
113	Grain Sizeâ€Specific Engelundâ€Hansen Type Relation for Bed Material Load in Sandâ€Bed Rivers, With Application to the Mississippi River. Water Resources Research, 2021, 57, e2020WR027517.	4.2	7
114	Linkages between bedload displacements and topographic change. Earth Surface Processes and Landforms, 2021, 46, 3127-3142.	2.5	7
115	Bed Material and Bedload Movement in Two Ephemeral Streams. , 0, , 37-49.		6
116	Modelling changes in suspended sediment from forest road surfaces in a coastal watershed of British Columbia. Hydrological Processes, 2014, 28, 4914-4927.	2.6	6
117	Spatial linkages between geomorphic and hydraulic conditions and invertebrate drift characteristics in a small mountain stream. Canadian Journal of Fisheries and Aquatic Sciences, 2018, 75, 1823-1835.	1.4	6
118	Spatiotemporal Patterns of Fractional Suspended Sediment Dynamics in Small Watersheds. Water Resources Research, 2021, 57, e2021WR030851.	4.2	6
119	Modeling temporal trends in bedload transport in gravel-bed streams using hierarchical mixed-effects models. Geomorphology, 2014, 219, 260-269.	2.6	5
120	Drag Forces on Large Cylinders. River Research and Applications, 2016, 32, 411-417.	1.7	5
121	Bio-climate affects hillslope and fluvial sediment grain size along the Chilean Coastal Cordillera. Geomorphology, 2021, 384, 107700.	2.6	5
122	Poyang and Dongting Lakes, Yangtze River: tributary lakes blocked by main-stem aggradation. Proceedings of the National Academy of Sciences of the United States of America, 2022, 119, .	7.1	5
123	Palestinian Water I: Resources, Allocation and Perception. Geography Compass, 2010, 4, 118-138.	2.7	4
124	Palestinian Water II: Climate Change and Land Use. Geography Compass, 2010, 4, 139-157.	2.7	4
125	FREQUENCY AND MAGNITUDE OF BEDLOAD TRANSPORT IN A MOUNTAIN RIVER. Earth Surface Processes and Landforms, 1996, 21, 433-445.	2.5	4
126	Principles of Bedload Transport of Non-cohesive Sediment in Open-Channels. GeoPlanet: Earth and Planetary Sciences, 2015, , 323-372.	0.2	4

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127	Step-Pool Channel Features. , 2020, , .		3
128	Geomorphic Controls on Sediment Mobility and Channel Stability of a Riffle-Pool Gravel Bed Channel. Lecture Notes in Civil Engineering, 2022, , 3-26.	0.4	3
129	REPLY TO DISCUSSION by John M. Faustini.. Journal of the American Water Resources Association, 2005, 41, 1241-1242.	2.4	2
130	Salmon as Biogeomorphic Agents in Gravel Bed Rivers: The Effect of Fish on Sediment Mobility and Spawning Habitat. Geophysical Monograph Series, 0, , 337-352.	0.1	2
131	Modelling the effects of climatic and hydrological regime changes on the sediment dynamics of the Fraser River Basin, British Columbia, Canada. Hydrological Processes, 2019, 33, 244-260.	2.6	2
132	Glacial landscape configuration influences channel response to flooding. Earth Surface Processes and Landforms, 2022, 47, 209-227.	2.5	2
133	Reach-scale morphodynamics: Insights from 20Âyears of observations and model simulations. Geomorphology, 2022, 413, 108375.	2.6	2
134	Fine particles in small steepland streams: physical, ecological, and human connections. WIT Transactions on State-of-the-art in Science and Engineering, 2008, , 125-181.	0.0	1
135	Cycles of aggradation and degradation in gravel-bed rivers mediated by sediment storage and morphologic evolution. Geomorphology, 2021, 395, 108001.	2.6	1
136	Experimental insights into the effect of event sequencing and sediment input texture on stepâ€pool channel evolution. Earth Surface Processes and Landforms, 2022, 47, 569-581.	2.5	1
137	Asher P. Schick (1931â€“2002). Eos, 2002, 83, 560.	0.1	0