

Rob Ferguson

List of Publications by Year in descending order

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Version: 2024-02-01

108
papers

7,230
citations

47006

47
h-index

58581

82
g-index

115
all docs

115
docs citations

115
times ranked

3923
citing authors

#	ARTICLE	IF	CITATIONS
1	River Loads Underestimated by Rating Curves. <i>Water Resources Research</i> , 1986, 22, 74-76.	4.2	622
2	A Simple Universal Equation for Grain Settling Velocity. <i>Journal of Sedimentary Research</i> , 2004, 74, 933-937.	1.6	383
3	Flow resistance equations for gravel- and boulder-bed streams. <i>Water Resources Research</i> , 2007, 43, .	4.2	326
4	Size-selective entrainment of bed load in gravel bed streams. <i>Water Resources Research</i> , 1989, 25, 627-634.	4.2	288
5	Numerical simulation of downstream fining by selective transport in gravel bed rivers: Model development and illustration. <i>Water Resources Research</i> , 1994, 30, 2251-2260.	4.2	261
6	Accuracy and precision of methods for estimating river loads. <i>Earth Surface Processes and Landforms</i> , 1987, 12, 95-104.	2.5	236
7	Hydraulics and hydraulic geometry. <i>Progress in Physical Geography</i> , 1986, 10, 1-31.	3.2	231
8	Splitting rivers at their seams: bifurcations and avulsion. <i>Earth Surface Processes and Landforms</i> , 2013, 38, 47-61.	2.5	204
9	Flow in meander bends with recirculation at the inner bank. <i>Water Resources Research</i> , 2003, 39, .	4.2	202
10	Field evidence for rapid downstream fining of river gravels through selective transport. <i>Geology</i> , 1996, 24, 179.	4.4	181
11	Velocity and flow resistance in step-pool streams. <i>Geomorphology</i> , 2002, 46, 59-71.	2.6	160
12	Morphodynamics: Rivers beyond steady state. <i>Water Resources Research</i> , 2015, 51, 1883-1897.	4.2	153
13	Secondary flow in anabranch confluences of a braided, gravel-bed stream. <i>Earth Surface Processes and Landforms</i> , 1992, 17, 299-311.	2.5	142
14	Unequal Mobility of Gravel and Sand in Weakly Bimodal River Sediments. <i>Water Resources Research</i> , 1995, 31, 2087-2096.	4.2	135
15	Tracer-pebble movement along a concave river profile: Virtual velocity in relation to grain size and shear stress. <i>Water Resources Research</i> , 1998, 34, 2031-2038.	4.2	135
16	The missing dimension: effects of lateral variation on 1-D calculations of fluvial bedload transport. <i>Geomorphology</i> , 2003, 56, 1-14.	2.6	133
17	Influence of sand on hydraulics and gravel transport in a braided gravel bed river. <i>Water Resources Research</i> , 1989, 25, 635-643.	4.2	118
18	Measurements in a Braided River chute and lobe: 1. Flow pattern, sediment transport, and channel change. <i>Water Resources Research</i> , 1992, 28, 1877-1886.	4.2	114

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19	Mobility of river tracer pebbles over different timescales. <i>Water Resources Research</i> , 2002, 38, 3-1-3-8.	4.2	112
20	Tributary control of physical heterogeneity and biological diversity at river confluences. <i>Canadian Journal of Fisheries and Aquatic Sciences</i> , 2006, 63, 2553-2566.	1.4	110
21	Measurements in a Braided River chute and lobe: 2. Sorting of bed load during entrainment, transport, and deposition. <i>Water Resources Research</i> , 1992, 28, 1887-1896.	4.2	108
22	Slope-induced changes in channel character along a gravel-bed stream: The Allt Dubhaig, Scotland. <i>Earth Surface Processes and Landforms</i> , 1991, 16, 65-82.	2.5	106
23	Numerical modelling of separated flow in river bends: model testing and experimental investigation of geometric controls on the extent of flow separation at the concave bank. <i>Hydrological Processes</i> , 1998, 12, 1323-1338.	2.6	101
24	Time to abandon the Manning equation?. <i>Earth Surface Processes and Landforms</i> , 2010, 35, 1873-1876.	2.5	98
25	River channel slope, flow resistance, and gravel entrainment thresholds. <i>Water Resources Research</i> , 2012, 48, .	4.2	96
26	River system discontinuities due to lateral inputs: generic styles and controls. <i>Earth Surface Processes and Landforms</i> , 2006, 31, 1149-1166.	2.5	87
27	Emergence of abrupt gravel to sand transitions along rivers through sorting processes. <i>Geology</i> , 2003, 31, 159.	4.4	83
28	Fluvial suspended sediment transport from cold and warm-based glaciers in Svalbard. <i>Earth Surface Processes and Landforms</i> , 1999, 24, 957-974.	2.5	82
29	Numerical modelling of airflow over an idealised transverse dune. <i>Environmental Modelling and Software</i> , 2004, 19, 153-162.	4.5	80
30	Snowmelt runoff models. <i>Progress in Physical Geography</i> , 1999, 23, 205-227.	3.2	79
31	Interrelationships of Channel Processes, Changes and Sediments in a Proglacial Braided River. <i>Geografiska Annaler, Series A: Physical Geography</i> , 1986, 68, 361.	1.5	77
32	Understanding braiding processes in gravel-bed rivers: progress and unsolved problems. <i>Geological Society Special Publication</i> , 1993, 75, 73-87.	1.3	76
33	Critical discharge for entrainment of poorly sorted gravel. <i>Earth Surface Processes and Landforms</i> , 1994, 19, 179-186.	2.5	76
34	Long-term slowdown of river tracer pebbles: Generic models and implications for interpreting short-term tracer studies. <i>Water Resources Research</i> , 2002, 38, 17-1-17-11.	4.2	76
35	Reconstructing a sediment pulse: Modeling the effect of placer mining on Fraser River, Canada. <i>Journal of Geophysical Research F: Earth Surface</i> , 2015, 120, 1436-1454.	2.8	74
36	The theoretical foundations and potential for large-eddy simulation (LES) in fluvial geomorphic and sedimentological research. <i>Earth-Science Reviews</i> , 2005, 71, 271-304.	9.1	70

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37	Estimating shear stress from moving boat acoustic Doppler velocity measurements in a large gravel bed river. <i>Water Resources Research</i> , 2007, 43, .	4.2	69
38	Sinuosity of Supraglacial Streams. <i>Bulletin of the Geological Society of America</i> , 1973, 84, 251.	3.3	65
39	Controls of strength and rate of downstream fining above a river base level. <i>Water Resources Research</i> , 1997, 33, 2601-2608.	4.2	63
40	Assessing the credibility of a series of computational fluid dynamic simulations of open channel flow. <i>Hydrological Processes</i> , 2003, 17, 1539-1560.	2.6	58
41	The gravel-sand transition: flume study of channel response to reduced slope. <i>Geomorphology</i> , 1996, 16, 147-159.	2.6	56
42	Measuring and defining bimodal sediments: Problems and implications. <i>Water Resources Research</i> , 1997, 33, 1179-1185.	4.2	53
43	A critical perspective on 1D modeling of river processes: Gravel load and aggradation in lower Fraser River. <i>Water Resources Research</i> , 2009, 45, .	4.2	50
44	Emergence of coherent flow structures over a gravel surface: A numerical experiment. <i>Water Resources Research</i> , 2007, 43, .	4.2	49
45	Advance, Retreat, and Halt of Abrupt Gravel-Sand Transitions in Alluvial Rivers. <i>Geophysical Research Letters</i> , 2017, 44, 9751-9760.	4.0	49
46	Bias and precision of percentiles of bulk grain size distributions. <i>Earth Surface Processes and Landforms</i> , 1997, 22, 1061-1077.	2.5	48
47	The cause of advective slowdown of tracer pebbles in rivers: Implementation of Exner-Based Master Equation for coevolving streamwise and vertical dispersion. <i>Journal of Geophysical Research F: Earth Surface</i> , 2016, 121, 623-637.	2.8	48
48	Evolution of an advancing gravel front: observations from Vedder Canal, British Columbia. <i>Earth Surface Processes and Landforms</i> , 2011, 36, 1172-1182.	2.5	46
49	Disturbed periodic model for river meanders. <i>Earth Surface Processes</i> , 1976, 1, 337-347.	0.7	42
50	Magnitude and modelling of snowmelt runoff in the Cairngorm mountains, Scotland. <i>Hydrological Sciences Journal</i> , 1984, 29, 49-62.	2.6	42
51	Bed load tracer mobility in a mixed bedrock/alluvial channel. <i>Journal of Geophysical Research F: Earth Surface</i> , 2017, 122, 807-822.	2.8	41
52	Turbulent flow structure in a gravel-bed river: Markov chain analysis of the fluctuating velocity profile. <i>Earth Surface Processes and Landforms</i> , 1995, 20, 721-733.	2.5	38
53	Basic Equations for Sediment Transport in CFD for Fluvial Morphodynamics. , 2005, , 71-89.		38
54	A modified morphodynamic model for investigating the response of rivers to short-term climate change. <i>Geomorphology</i> , 2008, 101, 674-682.	2.6	38

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55	The spatial and temporal patterns of aggradation in a temperate, upland, gravel-bed river. <i>Earth Surface Processes and Landforms</i> , 2009, 34, 1181-1197.	2.5	34
56	Using sediment impact sensors to improve the morphological sediment budget approach for estimating bedload transport rates. <i>Geomorphology</i> , 2010, 119, 125-134.	2.6	34
57	Fluvial aggradation in Vedder River: Testing a one-dimensional sedimentation model. <i>Water Resources Research</i> , 2001, 37, 3331-3347.	4.2	33
58	Erosion of organic carbon from the Andes and its effects on ecosystem carbon dioxide balance. <i>Journal of Geophysical Research G: Biogeosciences</i> , 2017, 122, 449-469.	3.0	28
59	Regular meander path models. <i>Water Resources Research</i> , 1973, 9, 1079-1086.	4.2	26
60	Modelling of Open Channel Flow through Vegetation. , 2005, , 395-428.		24
61	Meander sinuosity and direction variance. <i>Bulletin of the Geological Society of America</i> , 1977, 88, 212.	3.3	23
62	Publication practices in physical and human geography: a comment on Nigel Thrift's "The future of geography". <i>Geoforum</i> , 2003, 34, 9-11.	2.5	22
63	A Framework for Model Verification and Validation of CFD Schemes in Natural Open Channel Flows. , 2005, , 169-192.		21
64	Numerical modelling of climate change impacts on Saint-Lawrence River tributaries. <i>Earth Surface Processes and Landforms</i> , 2010, 35, 1184-1198.	2.5	21
65	Flow resistance and hydraulic geometry in contrasting reaches of a bedrock channel. <i>Water Resources Research</i> , 2017, 53, 2278-2293.	4.2	20
66	Forestry effects on suspended sediment and bedload yields in the Balquhider catchments, Central Scotland. <i>Transactions of the Royal Society of Edinburgh: Earth Sciences</i> , 1987, 78, 379-384.	0.7	19
67	Slope failures in the Ochil Hills, Scotland, November 1984. <i>Earth Surface Processes and Landforms</i> , 1988, 13, 69-76.	2.5	19
68	Implications of climate change in the twenty-first century for simulated magnitude and frequency of bed-material transport in tributaries of the Saint-Lawrence River. <i>Hydrological Processes</i> , 2011, 25, 1558-1573.	2.6	19
69	Flow resistance and hydraulic geometry in bedrock rivers with multiple roughness length scales. <i>Earth Surface Processes and Landforms</i> , 2019, 44, 2437-2449.	2.5	19
70	Use of remote sensing to test and update simulated snow cover in hydrological models. <i>Hydrological Processes</i> , 1999, 13, 2067-2077.	2.6	18
71	HIGH DENSITIES, WATER EQUIVALENTS, AND MELT RATES OF SNOW IN THE CAIRNGORM MOUNTAINS, SCOTLAND. <i>Weather</i> , 1985, 40, 272-277.	0.7	17
72	The Scientific Nature of Geomorphology. <i>Applied Geography</i> , 1998, 18, 99.	3.7	17

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73	Modelling Reach-Scale Fluvial Flows. , 2005, , 215-269.		15
74	Ten year remeasurement of chemical denudation on a magnesian limestone hillslope. Earth Surface Processes and Landforms, 1994, 19, 109-114.	2.5	14
75	Markov Models in Geography. Journal of the Royal Statistical Society: Series D (the Statistician), 1974, 23, 179.	0.2	12
76	Runoff from glacierized mountains: A model for annual variation and its forecasting. Water Resources Research, 1985, 21, 702-708.	4.2	11
77	Parameterisation, Validation and Uncertainty Analysis of CFD Models of Fluvial and Flood Hydraulics in the Natural Environment. , 2005, , 193-213.		11
78	Ecohydraulics: A New Interdisciplinary Frontier for CFD. , 2005, , 429-460.		10
79	2 Gravel-bed rivers at the reach scale. Developments in Earth Surface Processes, 2007, , 33-53.	2.8	10
80	Reply [to "Comment on "River loads underestimated by rating curves" by R. I. Ferguson]. Water Resources Research, 1986, 22, 2123-2124.	4.2	9
81	Introduction to Statistical Turbulence Modelling for Hydraulic Engineering Flows. , 2005, , 91-120.		9
82	Roughness Parameterization in CFD Modelling of Gravel-Bed Rivers. , 2005, , 329-355.		9
83	Testing Numerical Models in Geomorphology: How can we Ensure Critical Use of Model Predictions?. Geophysical Monograph Series, 0, , 241-256.	0.1	9
84	Snowmelt modelling in the Cairngorms, NE Scotland. Transactions of the Royal Society of Edinburgh: Earth Sciences, 1987, 78, 261-267.	0.7	8
85	Numerical Modelling of Floodplain Flow. , 2005, , 271-304.		8
86	Modelling Water Quality Processes in Estuaries. , 2005, , 305-328.		8
87	Computational Fluid Dynamics Modelling for Environmental Hydraulics. , 2005, , 1-15.		8
88	Modelling Wetting and Drying Processes in Hydraulic Models. , 2005, , 121-146.		8
89	On determining distances through stream networks. Water Resources Research, 1977, 13, 672-674.	4.2	7
90	Quantifying gravel deposition on river bars using flexible netting. Journal of Sedimentary Research, 1989, 59, 623-624.	1.6	6

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91	Limits to scale invariance in alluvial rivers. <i>Earth Surface Processes and Landforms</i> , 2021, 46, 173-187.	2.5	6
92	Fluvial processes and landforms. <i>Geological Society Memoir</i> , 2022, 58, 257-270.	1.7	5
93	Introduction to Numerical Methods for Fluid Flow. , 2005, , 147-168.		4
94	Modelling of Sand Deposition in Archaeologically Significant Reaches of the Colorado River in Grand Canyon, USA. , 2005, , 357-394.		4
95	Roughness Calibration to Improve Flow Predictions in Coarse-Grained Streams. <i>Water Resources Research</i> , 2021, 57, e2021WR029979.	4.2	4
96	Verification of simulated snow cover in an Arctic basin using satellite-derived snow-cover maps. <i>Annals of Glaciology</i> , 2000, 31, 391-396.	1.4	3
97	Fundamental Equations for CFD in River Flow Simulations. , 2005, , 17-49.		3
98	Topologic Asymmetry of Drainage Networks: The L Index and Its Applications. <i>Journal of Geology</i> , 1980, 88, 457-465.	1.4	2
99	A coupled sediment routing and lateral migration model for gravel-bed rivers. <i>Hydrological Processes</i> , 2011, 25, 1887-1898.	2.6	2
100	Numerical modelling of separated flow in river bends: model testing and experimental investigation of geometric controls on the extent of flow separation at the concave bank. <i>Hydrological Processes</i> , 1998, 12, 1323-1338.	2.6	2
101	Stream network volume: An index of channel morphometry: Discussion and reply. <i>Bulletin of the Geological Society of America</i> , 1979, 90, 606.	3.3	2
102	Computer simulation in physical geography(2nd edn). <i>Applied Geography</i> , 1994, 14, 285.	3.7	1
103	Modelling Solute Transport Processes in Free Surface Flow CFD Schemes. , 2005, , 51-69.		1
104	Discussion of "Channel Migration and Incision on The Beatton River" by Gerald C. Nanson and Edward J. Hicken (March, 1983). <i>Journal of Hydraulic Engineering</i> , 1984, 110, 1682-1683.	1.5	0
105	Reply [to "Comment on "River loads underestimated by rating curves" by R. I. Ferguson"]. <i>Water Resources Research</i> , 1988, 24, 1220-1220.	4.2	0
106	Excel modelling of hydrological systems. <i>Earth Surface Processes and Landforms</i> , 1994, 19, 815-817.	2.5	0
107	Towards Risk-Based Prediction in Real-World Applications of Complex Hydraulic Models. , 2005, , 461-486.		0
108	CFD for Environmental Design and Management. , 2005, , 487-509.		0