

# Bruce L Rhoads

## List of Publications by Year in descending order

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101  
papers

6,074  
citations

38660

50  
h-index

76769

74  
g-index

124  
all docs

124  
docs citations

124  
times ranked

2889  
citing authors

#	ARTICLE	IF	CITATIONS
1	Flowing Water, Turbulent and Laminar Flows. , 2022, , .		0
2	Big Pine Creek Ditch revisited: Planform recovery to channelization and the timescale of river meandering. <i>Geomorphology</i> , 2022, 403, 108140.	1.1	2
3	Large-scale Particle Image Velocimetry Reveals Pulsing of Incoming Flow at a Stream Confluence. <i>Water Resources Research</i> , 2021, 57, e2021WR029662.	1.7	7
4	Advective Lateral Transport of Streamwise Momentum Governs Mixing at Small River Confluences. <i>Water Resources Research</i> , 2020, 56, e2019WR026817.	1.7	21
5	The Dynamics of Drainage Basins and Stream Networks. , 2020, , 15-46.		1
6	Sediment Dynamics at Global and Drainage-Basin Scales. , 2020, , 47-71.		0
7	Flow Dynamics in Rivers. , 2020, , 72-96.		0
8	Sediment Transport Dynamics in Rivers. , 2020, , 97-133.		1
9	Magnitude-Frequency Concepts and the Dynamics of Channel-Forming Events. , 2020, , 134-163.		0
10	The Shaping of Channel Geometry. , 2020, , 164-185.		0
11	Channel Planform “ Controls on Development and Change. , 2020, , 186-196.		3
12	The Dynamics of Meandering Rivers. , 2020, , 197-233.		0
13	The Dynamics of Braided Rivers. , 2020, , 234-251.		1
14	The Dynamics of Anabranching Rivers. , 2020, , 252-268.		0
15	The Dynamics of River Confluences. , 2020, , 269-293.		5
16	The Vertical Dimension of Rivers: Longitudinal Profiles, Profile Adjustments, and Step-Pool Morphology. , 2020, , 294-318.		2
17	The Dynamics of Floodplains. , 2020, , 319-342.		1
18	Human Impacts on River Dynamics. , 2020, , 343-368.		0

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19	River Dynamics and Management. , 2020, , 369-403.		0
20	Spatial Variability in Bankfull Stage and Bank Elevations of Lowland Meandering Rivers: Relation to Rating Curves and Channel Planform Characteristics. Water Resources Research, 2020, 56, e2020WR027477.	1.7	16
21	Density Effects at a Concordant Bed Natural River Confluence. Water Resources Research, 2020, 56, e2019WR026217.	1.7	29
22	The C-biogeochemistry of a Midwestern USA agricultural impoundment in context: Lake Decatur in the intensively managed landscape critical zone observatory. Biogeochemistry, 2018, 138, 171-195.	1.7	11
23	Integrating unmanned aerial systems and LSPIV for rapid, cost-effective stream gauging. Journal of Hydrology, 2018, 560, 230-246.	2.3	39
24	Floodplains as a source of fine sediment in grazed landscapes: Tracing the source of suspended sediment in the headwaters of an intensively managed agricultural landscape. Geomorphology, 2018, 308, 278-292.	1.1	35
25	Use of multispectral satellite remote sensing to assess mixing of suspended sediment downstream of large river confluences. Journal of Hydrology, 2018, 556, 325-338.	2.3	93
26	The Intensively Managed Landscape Critical Zone Observatory: A Scientific Testbed for Understanding Critical Zone Processes in Agroecosystems. Vadose Zone Journal, 2018, 17, 1-21.	1.3	31
27	Three-dimensional flow structure, morphodynamics, suspended sediment, and thermal mixing at an asymmetrical river confluence of a straight tributary and curving main channel. Geomorphology, 2018, 323, 51-69.	1.1	60
28	HydroSedFoam: A new parallelized two-dimensional hydrodynamic, sediment transport, and bed morphology model. Computers and Geosciences, 2018, 120, 32-39.	2.0	4
29	LSPIV Measurements of Twoâ€­Dimensional Flow Structure in Streams Using Small Unmanned Aerial Systems: 1. Accuracy Assessment Based on Comparison With Stationary Camera Platforms and Inâ€­Stream Velocity Measurements. Water Resources Research, 2018, 54, 8000-8018.	1.7	27
30	LSPIV Measurements of Twoâ€­Dimensional Flow Structure in Streams Using Small Unmanned Aerial Systems: 2. Hydrodynamic Mapping at River Confluences. Water Resources Research, 2018, 54, 7981-7999.	1.7	54
31	Analysis of shallow turbulent flows using the Hilbert-Huang transform: a tool for exploring the characteristics of turbulence and coherent flow structures. Hungarian Geographical Bulletin, 2018, 67, 343-359.	0.4	4
32	Turbulent flow structure at a discordant river confluence: Asymmetric jet dynamics with implications for channel morphology. Journal of Geophysical Research F: Earth Surface, 2017, 122, 1278-1293.	1.0	72
33	Length scales and statistical characteristics of outer bank roughness for large elongate meander bends: The influence of bank material properties, floodplain vegetation and flow inundation. Earth Surface Processes and Landforms, 2017, 42, 2024-2037.	1.2	40
34	Assessment of the flow regime alterations in the middle reach of the Yangtze River associated with dam construction: potential ecological implications. Hydrological Processes, 2016, 30, 3949-3966.	1.1	138
35	Threeâ€­dimensional flow structure and patterns of bed shear stress in an evolving compound meander bend. Earth Surface Processes and Landforms, 2016, 41, 1211-1226.	1.2	58
36	Influence of planform geometry and momentum ratio on thermal mixing at a stream confluence with a concordant bed. Environmental Fluid Mechanics, 2016, 16, 845-873.	0.7	64

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37	Three-dimensional flow structure and bed morphology in large elongate meander loops with different outer bank roughness characteristics. <i>Water Resources Research</i> , 2016, 52, 9621-9641.	1.7	60
38	Historical changes in channel network extent and channel planform in an intensively managed landscape: Natural versus human-induced effects. <i>Geomorphology</i> , 2016, 252, 17-31.	1.1	91
39	Spatial variability in bank resistance to erosion on a large meandering, mixed bedrock-alluvial river. <i>Geomorphology</i> , 2016, 252, 80-97.	1.1	108
40	The natural and human structuring of rivers and other geomorphological systems: A tribute to William L. Graf. <i>Geomorphology</i> , 2016, 252, 1-4.	1.1	3
41	Flow evolution near the apex of two small stream confluences using large-scale particle image velocimetry. , 2016, , .		2
42	Rates and patterns of thermal mixing at a small stream confluence under variable incoming flow conditions. <i>Hydrological Processes</i> , 2015, 29, 4442-4456.	1.1	64
43	Resolving two-dimensional flow structure in rivers using large-scale particle image velocimetry: An example from a stream confluence. <i>Water Resources Research</i> , 2015, 51, 7977-7994.	1.7	41
44	Influence of junction angle on three-dimensional flow structure and bed morphology at confluent meander bends during different hydrological conditions. <i>Earth Surface Processes and Landforms</i> , 2015, 40, 252-271.	1.2	74
45	Intervention: Critical physical geography. <i>Canadian Geographer / Geographie Canadien</i> , 2014, 58, 1-10.	1.0	216
46	Numerical evaluation of the effects of planform geometry and inflow conditions on flow, turbulence structure, and bed shear velocity at a stream confluence with a concordant bed. <i>Journal of Geophysical Research F: Earth Surface</i> , 2014, 119, 2079-2097.	1.0	68
47	Assessment of Floodplain Vulnerability during Extreme Mississippi River Flood 2011. <i>Environmental Science &amp; Technology</i> , 2014, 48, 2619-2625.	4.6	39
48	Spatial-temporal structure of mixing interface turbulence at two large river confluences. <i>Environmental Fluid Mechanics</i> , 2014, 14, 1043-1070.	0.7	63
49	Influence of four run-of-river dams on channel morphology and sediment characteristics in Illinois, USA. <i>Geomorphology</i> , 2014, 206, 215-229.	1.1	99
50	Pool-Riffle Design Based on Geomorphological Principles for Naturalizing Straight Channels. <i>Geophysical Monograph Series</i> , 2013, , 367-384.	0.1	5
51	Flow structure and channel morphodynamics of meander bend chute cutoffs: A case study of the Wabash River, USA. <i>Journal of Geophysical Research F: Earth Surface</i> , 2013, 118, 2468-2487.	1.0	91
52	Interaction among mean flow, turbulence, bed morphology, bank failures and channel planform in an evolving compound meander loop. <i>Geomorphology</i> , 2012, 163-164, 70-83.	1.1	93
53	Flow structure and channel morphology at a natural confluent meander bend. <i>Geomorphology</i> , 2012, 163-164, 84-98.	1.1	96
54	Numerical analysis of the effect of momentum ratio on the dynamics and sediment-entrainment capacity of coherent flow structures at a stream confluence. <i>Journal of Geophysical Research</i> , 2012, 117, .	3.3	112

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55	Extreme sediment pulses generated by bend cutoffs along a large meandering river. <i>Nature Geoscience</i> , 2011, 4, 675-678.	5.4	115
56	Farmer Attitudes Toward Production of Perennial Energy Grasses in East Central Illinois: Implications for Community-Based Decision Making. <i>Annals of the American Association of Geographers</i> , 2011, 101, 852-862.	3.0	25
57	Structure of turbulent flow at a river confluence with momentum and velocity ratios close to 1: Insight provided by an eddy-resolving numerical simulation. <i>Water Resources Research</i> , 2011, 47, .	1.7	153
58	Influence of floodplain erosional heterogeneity on planform complexity of meandering rivers. <i>Geophysical Research Letters</i> , 2011, 38, n/a-n/a.	1.5	95
59	Spatial autoregressive structure of meander evolution revisited. <i>Geomorphology</i> , 2010, 120, 91-106.	1.1	50
60	Empirical analysis of the planform curvature-migration relation of meandering rivers. <i>Water Resources Research</i> , 2009, 45, .	1.7	84
61	Response of bed morphology and bed material texture to hydrological conditions at an asymmetrical stream confluence. <i>Geomorphology</i> , 2009, 109, 161-173.	1.1	97
62	Continuous Characterization of the Planform Geometry and Curvature of Meandering Rivers. <i>Geographical Analysis</i> , 2008, 40, 1-25.	1.9	62
63	Introduction: River Confluences, Tributaries and the Fluvial Network. , 2008, , 1-9.		6
64	Confluence Environments at the Scale of River Networks. , 2008, , 271-300.		8
65	Introduction to Part III: Channel Networks. , 2008, , 301-306.		0
66	Hydrologic Dispersion in Fluvial Networks. , 2008, , 307-335.		2
67	Sediment Delivery: New Approaches to Modelling an Old Problem. , 2008, , 337-366.		1
68	Numerical Predictions of the Sensitivity of Grain Size and Channel Slope to an Increase in Precipitation. , 2008, , 367-394.		4
69	Introduction to Part I: River Channel Confluences. , 2008, , 11-16.		0
70	Large River Channel Confluences. , 2008, , 73-91.		34
71	Introduction to Part II: Tributary-Main-Stem Interactions. , 2008, , 149-157.		0
72	Place Index. , 2008, , 457-457.		0

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73	Lateral momentum flux and the spatial evolution of flow within a confluence mixing interface. <i>Water Resources Research</i> , 2008, 44, .	1.7	116
74	Influence of experimental removal of large woody debris on spatial patterns of three-dimensional flow in a meander bend. <i>Earth Surface Processes and Landforms</i> , 2007, 32, 460-474.	1.2	19
75	The Dynamic Basis of Geomorphology Reenvisioned. <i>Annals of the American Association of Geographers</i> , 2006, 96, 14-30.	3.0	61
76	Structure of flow over alluvial bedforms: an experiment on linking field and laboratory methods. <i>Earth Surface Processes and Landforms</i> , 2006, 31, 1292-1310.	1.2	38
77	High-resolution Numerical Simulation of Flow Through a Highly Sinuous River Reach. <i>Water Resources Management</i> , 2004, 18, 177-199.	1.9	84
78	Spatial and temporal structure of shear layer turbulence at a stream confluence. <i>Water Resources Research</i> , 2004, 40, .	1.7	116
79	Effect of large woody debris configuration on three-dimensional flow structure in two low-energy meander bends at varying stages. <i>Water Resources Research</i> , 2004, 40, .	1.7	73
80	Three-dimensional flow structure and channel change in an asymmetrical compound meander loop, Embarras River, Illinois. <i>Earth Surface Processes and Landforms</i> , 2003, 28, 625-644.	1.2	164
81	Depositional response of a headwater stream to channelization, East Central Illinois, USA. <i>River Research and Applications</i> , 2003, 19, 77-100.	0.7	93
82	Catastrophic Human-Induced Change in Stream-Channel Planform and Geometry in an Agricultural Watershed, Illinois, USA. <i>Annals of the American Association of Geographers</i> , 2003, 93, 783-796.	3.0	89
83	Stream geomorphology, bank vegetation, and three-dimensional habitat hydraulics for fish in midwestern agricultural streams. <i>Water Resources Research</i> , 2003, 39, .	1.7	85
84	Influence of a large woody debris obstruction on three-dimensional flow structure in a meander bend. <i>Geomorphology</i> , 2003, 51, 159-173.	1.1	73
85	Physical Habitat Analysis and Design of In-Channel Structures on a Chicago, IL Urban Drainage: A Stream Naturalization Design Process. , 2002, , 1.		5
86	A Multiscale Conceptual Framework for Integrated Ecogeomorphological Research to Support Stream Naturalization in the Agricultural Midwest. <i>Environmental Management</i> , 2002, 29, 16-33.	1.2	75
87	Field investigation of three-dimensional flow structure at stream confluences: 1. Thermal mixing and time-averaged velocities. <i>Water Resources Research</i> , 2001, 37, 2393-2410.	1.7	198
88	Field investigation of three-dimensional flow structure at stream confluences: 2. Turbulence. <i>Water Resources Research</i> , 2001, 37, 2411-2424.	1.7	147
89	Interaction Between Scientists and Nonscientists in Community-Based Watershed Management: Emergence of the Concept of Stream Naturalization. <i>Environmental Management</i> , 1999, 24, 297-308.	1.2	216
90	On secondary circulation, helical motion and Arozovskii-based analysis of time-averaged two-dimensional velocity fields at confluences. <i>Earth Surface Processes and Landforms</i> , 1999, 24, 369-375.	1.2	58

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91	Time-averaged flow structure in the central region of a stream confluence. <i>Earth Surface Processes and Landforms</i> , 1998, 23, 171-191.	1.2	151
92	Hydrologic control of spatial patterns of suspended sediment concentration at a stream confluence. <i>Journal of Hydrology</i> , 1995, 168, 251-263.	2.3	94
93	Flow structure at an asymmetrical stream confluence. <i>Geomorphology</i> , 1995, 11, 273-293.	1.1	228
94	On being a "real" geomorphologist. <i>Earth Surface Processes and Landforms</i> , 1994, 19, 269-272.	1.2	18
95	A Continuously Varying Parameter Model of Downstream Hydraulic Geometry. <i>Water Resources Research</i> , 1991, 27, 1865-1872.	1.7	82
96	Impact of flow variability on the morphology of a low-energy meandering river. <i>Earth Surface Processes and Landforms</i> , 1991, 16, 357-367.	1.2	42
97	Initiation of river meandering. <i>Progress in Physical Geography</i> , 1991, 15, 127-156.	1.4	93
98	Impact of riverine wetlands construction and operation on stream channel stability: Conceptual framework for geomorphic assessment. <i>Environmental Management</i> , 1990, 14, 799-807.	1.2	12
99	Mutual Adjustments between Process and Form in a Desert Mountain Fluvial System. <i>Annals of the American Association of Geographers</i> , 1988, 78, 271-287.	3.0	47
100	CHANGES IN STREAM CHANNEL CHARACTERISTICS AT TRIBUTARY JUNCTIONS. <i>Physical Geography</i> , 1987, 8, 346-361.	0.6	79
101	STREAM POWER TERMINOLOGY. <i>Professional Geographer</i> , 1987, 39, 189-195.	1.0	78