

Jeff Peakall

List of Publications by Year in descending order

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136
papers

5,947
citations

94269

37
h-index

82410

72
g-index

141
all docs

141
docs citations

141
times ranked

3906
citing authors

#	ARTICLE	IF	CITATIONS
1	Autonomous Underwater Vehicles (AUVs): Their past, present and future contributions to the advancement of marine geoscience. <i>Marine Geology</i> , 2014, 352, 451-468.	0.9	669
2	A Process Model for the Evolution, Morphology, and Architecture of Sinuous Submarine Channels. <i>Journal of Sedimentary Research</i> , 2000, 70, 434-448.	0.8	345
3	Sinuuous deep-water channels: Genesis, geometry and architecture. <i>Marine and Petroleum Geology</i> , 2007, 24, 341-387.	1.5	254
4	Beds comprising debrite sandwiched within co-genetic turbidite: origin and widespread occurrence in distal depositional environments. <i>Sedimentology</i> , 2004, 51, 163-194.	1.6	204
5	Depositional processes, bedform development and hybrid bed formation in rapidly decelerated cohesive (mud"sand) sediment flows. <i>Sedimentology</i> , 2011, 58, 1953-1987.	1.6	198
6	A Phase Diagram for Turbulent, Transitional, and Laminar Clay Suspension Flows. <i>Journal of Sedimentary Research</i> , 2009, 79, 162-183.	0.8	193
7	Meander-Bend Evolution, Alluvial Architecture, and the Role of Cohesion in Sinuous River Channels: A Flume Study. <i>Journal of Sedimentary Research</i> , 2007, 77, 197-212.	0.8	165
8	The pervasive role of biological cohesion in bedform development. <i>Nature Communications</i> , 2015, 6, 6257.	5.8	165
9	Measuring flow velocity and sediment transport with an acoustic Doppler current profiler. <i>Geomorphology</i> , 2005, 68, 25-37.	1.1	133
10	Predicting bedforms and primary current stratification in cohesive mixtures of mud and sand. <i>Journal of the Geological Society</i> , 2016, 173, 12-45.	0.9	127
11	Submarine channel flow processes and deposits: A process-product perspective. <i>Geomorphology</i> , 2015, 244, 95-120.	1.1	111
12	The role of biophysical cohesion on subaqueous bed form size. <i>Geophysical Research Letters</i> , 2016, 43, 1566-1573.	1.5	110
13	Flow processes and sedimentation in submarine channel bends. <i>Marine and Petroleum Geology</i> , 2007, 24, 470-486.	1.5	109
14	Whole flow field dynamics and velocity pulsing within natural sediment-laden underflows. <i>Geology</i> , 2005, 33, 765.	2.0	103
15	Flow structure in sinuous submarine channels: Velocity and turbulence structure of an experimental submarine channel. <i>Marine Geology</i> , 2006, 229, 241-257.	0.9	103
16	Transformation of debris flows into turbidity currents: mechanisms inferred from laboratory experiments. <i>Sedimentology</i> , 2006, 53, 107-123.	1.6	99
17	The orientation of helical flow in curved channels. <i>Sedimentology</i> , 2006, 53, 249-257.	1.6	92
18	New insights into the morphology, fill, and remarkable longevity (>0.2 m.y.) of modern deep-water erosional scours along the northeast Atlantic margin. , 2011, 7, 845-867.		80

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19	Sticky stuff: Redefining bedform prediction in modern and ancient environments. <i>Geology</i> , 2015, 43, 399-402.	2.0	80
20	Bed geometry used to test recognition criteria of turbidites and (sandy) debrites. <i>Sedimentary Geology</i> , 2005, 179, 163-174.	1.0	74
21	Controls on sinuosity evolution within submarine channels. <i>Geology</i> , 2008, 36, 287.	2.0	74
22	Sedimentation in deep-sea lobe-elements: implications for the origin of thickening-upward sequences. <i>Journal of the Geological Society</i> , 2011, 168, 319-332.	0.9	72
23	An integrated model of extrusive sand injectites in cohesionless sediments. <i>Sedimentology</i> , 2011, 58, 1693-1715.	1.6	69
24	Submarine channel levee shape and sediment waves from physical experiments. <i>Sedimentary Geology</i> , 2010, 223, 75-85.	1.0	68
25	Global (latitudinal) variation in submarine channel sinuosity. <i>Geology</i> , 2012, 40, 11-14.	2.0	68
26	Deep-water channel-lobe transition zone dynamics: Processes and depositional architecture, an example from the Karoo Basin, South Africa. <i>Bulletin of the Geological Society of America</i> , 2018, 130, 1723-1746.	1.6	64
27	Giant scour-fills in ancient channel-lobe transition zones: Formative processes and depositional architecture. <i>Sedimentary Geology</i> , 2015, 329, 98-114.	1.0	59
28	Gravity-driven flow in a submarine channel bend: Direct field evidence of helical flow reversal. <i>Geology</i> , 2010, 38, 1063-1066.	2.0	58
29	The influence of scale, slope and channel geometry on the flow dynamics of submarine channels. <i>Marine and Petroleum Geology</i> , 2007, 24, 487-503.	1.5	56
30	The influence of bend amplitude and planform morphology on flow and sedimentation in submarine channels. <i>Marine and Petroleum Geology</i> , 2010, 27, 1431-1447.	1.5	53
31	Flow dynamics and mixing processes in hydraulic jump arrays: Implications for channel-lobe transition zones. <i>Marine Geology</i> , 2016, 381, 181-193.	0.9	51
32	First quantitative test of alluvial stratigraphic models: Southern Rio Grande rift, New Mexico. <i>Geology</i> , 1996, 24, 87.	2.0	48
33	First direct measurements of hydraulic jumps in an active submarine density current. <i>Geophysical Research Letters</i> , 2013, 40, 5904-5908.	1.5	48
34	An integrated process-based model of flutes and tool marks in deep-water environments: Implications for palaeohydraulics, the Bouma sequence and hybrid event beds. <i>Sedimentology</i> , 2020, 67, 1601-1666.	1.6	48
35	Outer-Bank Bars: A New Intra-Channel Architectural Element within Sinuous Submarine Slope Channels. <i>Journal of Sedimentary Research</i> , 2009, 79, 872-886.	0.8	46
36	Hydrodynamics of fossil fishes. <i>Proceedings of the Royal Society B: Biological Sciences</i> , 2014, 281, 20140703.	1.2	43

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37	Tectonic and environmental controls on Palaeozoic fluvial environments: reassessing the impacts of early land plants on sedimentation. <i>Journal of the Geological Society</i> , 2017, 174, 393-404.	0.9	43
38	Combined measurements of velocity and concentration in experimental turbidity currents. <i>Sedimentary Geology</i> , 2005, 179, 31-47.	1.0	39
39	Density- and viscosity-stratified gravity currents: Insight from laboratory experiments and implications for submarine flow deposits. <i>Sedimentary Geology</i> , 2005, 179, 5-29.	1.0	37
40	River response to lateral ground tilting: a synthesis and some implications for the modelling of alluvial architecture in extensional basins. <i>Basin Research</i> , 2000, 12, 413-424.	1.3	37
41	Field expressions of the transformation of debris flows into turbidity currents, with examples from the Polish Carpathians and the French Maritime Alps. <i>Marine and Petroleum Geology</i> , 2009, 26, 2011-2020.	1.5	36
42	Driven around the bend: Spatial evolution and controls on the orientation of helical bend flow in a natural submarine gravity current. <i>Journal of Geophysical Research: Oceans</i> , 2014, 119, 898-913.	1.0	35
43	Flow processes and sedimentation in unidirectionally migrating deep-water channels: From a three-dimensional seismic perspective. <i>Sedimentology</i> , 2016, 63, 645-661.	1.6	35
44	Superelevation and overflow control secondary flow dynamics in submarine channels. <i>Journal of Geophysical Research: Oceans</i> , 2013, 118, 3895-3915.	1.0	33
45	Characterization of Multiple Hindered Settling Regimes in Aggregated Mineral Suspensions. <i>Industrial & Engineering Chemistry Research</i> , 2016, 55, 9983-9993.	1.8	33
46	Indicators of propagation direction and relative depth in clastic injectites: Implications for laminar versus turbulent flow processes. <i>Bulletin of the Geological Society of America</i> , 2015, 127, 1816-1830.	1.6	31
47	The critical role of stratification in submarine channels: Implications for channelization and long runoff of flows. <i>Journal of Geophysical Research: Oceans</i> , 2014, 119, 2620-2641.	1.0	30
48	Latitudinal variations in submarine channel sedimentation patterns: the role of Coriolis forces. <i>Journal of the Geological Society</i> , 2015, 172, 161-174.	0.9	30
49	Particle Size Distribution Controls the Threshold Between Net Sediment Erosion and Deposition in Suspended Load Dominated Flows. <i>Geophysical Research Letters</i> , 2018, 45, 1443-1452.	1.5	30
50	Ultrasonic velocimetry for the in situ characterisation of particulate settling and sedimentation. <i>Minerals Engineering</i> , 2011, 24, 416-423.	1.8	29
51	Reply to Discussion of Imran <i>et al.</i> on "The orientation of helical flow in curved channels" by Corney <i>et al.</i> , <i>Sedimentology</i> , 53, 249-257. <i>Sedimentology</i> , 2008, 55, 241-247.	1.6	28
52	Using a multi-frequency acoustic backscatter system as an in situ high concentration dispersion monitor. <i>Chemical Engineering Science</i> , 2012, 80, 409-418.	1.9	28
53	Disconnected submarine lobes as a record of stepped slope evolution over multiple sea-level cycles. , 2018, 14, 1753-1779.		27
54	On the Origin of Paleocurrent Complexity Within Deep Marine Channel Levees. <i>Journal of Sedimentary Research</i> , 2010, 80, 54-66.	0.8	25

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55	Effects of topography on lofting gravity flows: Implications for the deposition of deep-water massive sands. <i>Marine and Petroleum Geology</i> , 2010, 27, 1366-1378.	1.5	25
56	A unifying computational fluid dynamics investigation on the river-like to river-reversed secondary circulation in submarine channel bends. <i>Journal of Geophysical Research</i> , 2011, 116, .	3.3	25
57	Bedform migration in a mixed sand and cohesive clay intertidal environment and implications for bed material transport predictions. <i>Geomorphology</i> , 2018, 315, 17-32.	1.1	25
58	Experimental constraints on shear mixing rates and processes: implications for the dilution of submarine debris flows. <i>Geological Society Special Publication</i> , 2002, 203, 89-103.	0.8	24
59	Abrupt transitions in gravity currents. <i>Journal of Geophysical Research</i> , 2005, 110, .	3.3	24
60	Relative Importance of Processes That Govern the Generation of Particulate Hyperpycnal Flows. <i>Journal of Sedimentary Research</i> , 2006, 76, 382-387.	0.8	24
61	Facies and flow regimes of sandstone-hosted columnar intrusions: Insights from the pipes of Kodachrome Basin State Park. <i>Sedimentology</i> , 2014, 61, 1764-1792.	1.6	24
62	An integrated model of clastic injectites and basin floor lobe complexes: implications for stratigraphic trap plays. <i>Basin Research</i> , 2017, 29, 816-835.	1.3	24
63	TB or not TB: banding in turbidite sandstones. <i>Journal of Sedimentary Research</i> , 2020, 90, 821-842.	0.8	24
64	An acoustic backscatter system for in situ concentration profiling of settling flocculated dispersions. <i>Minerals Engineering</i> , 2012, 27-28, 20-27.	1.8	23
65	On the Causes of Pulsing in Continuous Turbidity Currents. <i>Journal of Geophysical Research F: Earth Surface</i> , 2018, 123, 2827-2843.	1.0	23
66	Measuring particle concentration in multiphase pipe flow using acoustic backscatter: Generalization of the dual-frequency inversion method. <i>Journal of the Acoustical Society of America</i> , 2014, 136, 156-169.	0.5	22
67	Yield stress dependency on the evolution of bubble populations generated in consolidated soft sediments. <i>AIChE Journal</i> , 2017, 63, 3728-3742.	1.8	22
68	Self-sharpening induces jet-like structure in seafloor gravity currents. <i>Nature Communications</i> , 2019, 10, 1381.	5.8	22
69	Flow processes and sedimentation in contourite channels on the northwestern South China Sea margin: A joint 3D seismic and oceanographic perspective. <i>Marine Geology</i> , 2017, 393, 176-193.	0.9	21
70	Architecture and morphodynamics of subcritical sediment waves in an ancient channel-lobe transition zone. <i>Sedimentology</i> , 2018, 65, 2339-2367.	1.6	21
71	Modelling the equilibrium bed topography of submarine meanders that exhibit reversed secondary flows. <i>Geomorphology</i> , 2012, 163-164, 99-109.	1.1	20
72	Measurement of particle concentration in horizontal, multiphase pipe flow using acoustic methods: Limiting concentration and the effect of attenuation. <i>Chemical Engineering Science</i> , 2015, 126, 745-758.	1.9	20

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73	Integrating field and laboratory approaches for ripple development in mixed sand-clay EPS. <i>Sedimentology</i> , 2019, 66, 2749-2768.	1.6	20
74	Rainfall-runoff properties of tephra: Simulated effects of grain-size and antecedent rainfall. <i>Geomorphology</i> , 2017, 282, 39-51.	1.1	19
75	The impact of fine-scale reservoir geometries on streamline flow patterns in submarine lobe deposits using outcrop analogues from the Karoo Basin. <i>Petroleum Geoscience</i> , 2017, 23, 159-176.	0.9	19
76	Sole marks reveal deep-marine depositional process and environment: Implications for flow transformation and hybrid-event-bed models. <i>Journal of Sedimentary Research</i> , 2021, 91, 986-1009.	0.8	19
77	Exhumed lateral margins and increasing flow confinement of a submarine landslide complex. <i>Sedimentology</i> , 2018, 65, 1067-1096.	1.6	18
78	Electrical Resistance Tomography for Suspended Sediment Measurements in Open Channel Flows Using a Novel Sensor Design. <i>Particle and Particle Systems Characterization</i> , 2006, 23, 313-320.	1.2	17
79	Influence of Coriolis Force Upon Bottom Boundary Layers in a Large-Scale Gravity Current Experiment: Implications for Evolution of Sinuous Deep-Water Channel Systems. <i>Journal of Geophysical Research: Oceans</i> , 2020, 125, e2019JC015284.	1.0	17
80	Concentration profiling of a horizontal sedimentation tank utilising a bespoke acoustic backscatter array and CFD simulations. <i>Chemical Engineering Science</i> , 2020, 218, 115560.	1.9	16
81	Hydrodynamic efficiency in sharks: the combined role of riblets and denticles. <i>Bioinspiration and Biomimetics</i> , 2021, 16, 046008.	1.5	16
82	The Influence of Aggradation Rate on Braided Alluvial Architecture: Field Study and Physical Scale-Modelling of the Ashburton River Gravels, Canterbury Plains, New Zealand. , 0, , 331-346.		15
83	The influence of system scale on impinging jet sediment erosion: Observed using novel and standard measurement techniques. <i>Chemical Engineering Research and Design</i> , 2013, 91, 722-734.	2.7	15
84	Three-dimensional gravity-current flow within a subaqueous bend: Spatial evolution and force balance variations. <i>Sedimentology</i> , 2013, 60, 1668-1680.	1.6	15
85	Global (latitudinal) variation in submarine channel sinuosity: REPLY. <i>Geology</i> , 2013, 41, e288-e288.	2.0	15
86	Interactions between sediment microbial ecology and physical dynamics drive heterogeneity in contextually similar depositional systems. <i>Limnology and Oceanography</i> , 2020, 65, 2403-2419.	1.6	15
87	Particulate Gravity Currents: Perspectives. , 0, , 1-8.		14
88	In situ characterisation of a concentrated colloidal titanium dioxide settling suspension and associated bed development: Application of an acoustic backscatter system. <i>Powder Technology</i> , 2015, 284, 530-540.	2.1	14
89	Palynological evidence for a warmer boreal climate in the Late Pliocene of the Yukon Territory, Canada. <i>Palynology</i> , 2015, 39, 91-102.	0.7	13
90	A novel mixing mechanism in sinuous seafloor channels: Implications for submarine channel evolution. <i>Geomorphology</i> , 2018, 303, 1-12.	1.1	13

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91	Evolution from syn-rift carbonates to early post-rift deep-marine intraslope lobes: The role of rift basin physiography on sedimentation patterns. <i>Sedimentology</i> , 2021, 68, 2563-2605.	1.6	13
92	Comparing the transitional behaviour of kaolinite and bentonite suspension flows. <i>Earth Surface Processes and Landforms</i> , 2016, 41, 1911-1921.	1.2	12
93	Channel-lobe transition zone development in tectonically active settings: Implications for hybrid bed development. <i>Depositional Record</i> , 2022, 8, 829-868.	0.8	12
94	Constraints on the functional form of the critical deposition velocity in solid-liquid pipe flow at low solid volume fractions. <i>Chemical Engineering Science</i> , 2015, 126, 759-770.	1.9	11
95	<i>In situ</i> characterization of mixing and sedimentation dynamics in an impinging jet ballast tank via acoustic backscatter. <i>AIChE Journal</i> , 2017, 63, 2618-2629.	1.8	11
96	The effect of Schmidt number on gravity current flows: The formation of large-scale three-dimensional structures. <i>Physics of Fluids</i> , 2021, 33, .	1.6	11
97	Measurement and density normalisation of acoustic attenuation and backscattering constants of arbitrary suspensions within the Rayleigh scattering regime. <i>Applied Acoustics</i> , 2019, 146, 9-22.	1.7	10
98	Submarine Channel Mouth Settings: Processes, Geomorphology, and Deposits. <i>Frontiers in Earth Science</i> , 2022, 10, .	0.8	10
99	Sub-aqueous sand extrusion dynamics. <i>Journal of the Geological Society</i> , 2013, 170, 593-602.	0.9	9
100	Particle Concentration Measurement and Flow Regime Identification in Multiphase Pipe Flow Using a Generalised Dual-frequency Inversion Method. <i>Procedia Engineering</i> , 2015, 102, 986-995.	1.2	9
101	Reply to Discussion on "Tectonic and environmental controls on Palaeozoic fluvial environments: reassessing the impacts of early land plants on sedimentation" <i>Journal of the Geological Society, London</i> , https://doi.org/10.1144/jgs2016-063 . <i>Journal of the Geological Society</i> , 2017, 174, 950-952.	0.9	9
102	Unusual intraclast conglomerates in a stormy, hot-house lake: The Early Triassic North China Basin. <i>Sedimentology</i> , 2021, 68, 3385-3404.	1.6	9
103	Real-time prediction of rain-triggered lahars: incorporating seasonality and catchment recovery. <i>Natural Hazards and Earth System Sciences</i> , 2017, 17, 2301-2312.	1.5	8
104	A numerical study of the triggering mechanism of a lock-release density current. <i>European Journal of Mechanics, B/Fluids</i> , 2012, 33, 25-39.	1.2	7
105	Bedform genesis in bedrock substrates: Insights into formative processes from a new experimental approach and the importance of suspension-dominated abrasion. <i>Geomorphology</i> , 2016, 255, 26-38.	1.1	7
106	The influence of relative fluid depth on initial bedform dynamics in closed, horizontal pipe flow. <i>International Journal of Multiphase Flow</i> , 2017, 93, 1-16.	1.6	7
107	Early burial mud diapirism and its impact on stratigraphic architecture in the Carboniferous of the Shannon Basin, County Clare, Ireland. <i>Sedimentology</i> , 2019, 66, 329-361.	1.6	7
108	Numerical Modelling of Turbulent Particle-laden Sonic CO2 Jets with Experimental Validation. <i>Procedia Engineering</i> , 2015, 102, 1621-1629.	1.2	6

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109	A new macrofaunal limit in the deep biosphere revealed by extreme burrow depths in ancient sediments. <i>Scientific Reports</i> , 2018, 8, 261.	1.6	6
110	Width variation around submarine channel bends: Implications for sedimentation and channel evolution. <i>Marine Geology</i> , 2021, 437, 106504.	0.9	6
111	Numerical modelling of particle-laden sonic CO ₂ jets with experimental validation. <i>AIP Conference Proceedings</i> , 2013, , .	0.3	5
112	Observations of large-scale coherent structures in gravity currents: implications for flow dynamics. <i>Experiments in Fluids</i> , 2021, 62, 1.	1.1	5
113	Spatial and temporal evolution of an experimental debris flow, exhibiting coupled fluid and particulate phases. <i>Acta Geotechnica</i> , 2022, 17, 965-979.	2.9	5
114	A pilot study of the efficacy of residuum lodges for managing sediment delivery to impoundment reservoirs. <i>Water and Environment Journal</i> , 2009, 23, 52-62.	1.0	4
115	Comment on "A simple model for vertical profiles of velocity and suspended sediment concentration in straight and curved submarine channels" by M. Bolla Pittaluga and J. Imran. <i>Journal of Geophysical Research F: Earth Surface</i> , 2014, 119, 2070-2073.	1.0	4
116	Undersea river patterns. <i>Nature Geoscience</i> , 2015, 8, 663-664.	5.4	4
117	The Geomorphology of Submarine Channel Systems of the Northern Line Islands Ridge, Central Equatorial Pacific Ocean. <i>Frontiers in Earth Science</i> , 2020, 8, .	0.8	4
118	Channel incision into a submarine landslide on a Carboniferous basin margin, San Juan, Argentina: Evidence for the role of knickpoints. <i>Depositional Record</i> , 2022, 8, 628-655.	0.8	3
119	MEMS-Integrated Load Cell for Measuring Pressure, Erosion, and Deposition in Dynamic Environmental Flows. <i>IEEE Sensors Journal</i> , 2013, 13, 492-500.	2.4	2
120	Development of a real-time acoustic backscatter system for solids concentration measurement during nuclear waste cleanup. , 2015, , .		2
121	Ultrasonic Techniques for the In Situ Characterisation of "Legacy"™ Waste Sludges and Dispersions. , 2011, , .		1
122	Concentration profiling using a novel acoustic backscatter system with single transducers pulsed at multiple frequencies. , 2017, , .		1
123	Behaviour of time-dependent bedforms in closed pipe flow. , 2012, , .		1
124	Utilisation of underwater acoustic backscatter systems to characterise nuclear waste suspensions remotely. <i>Proceedings of Meetings on Acoustics</i> , 2020, , .	0.3	1
125	Axial River Evolution in Response to Half-Graben Faulting: Carson River, Nevada, U.S.A.. <i>Journal of Sedimentary Research</i> , 1998, Vol. 68 (1998), , .	0.8	0
126	Validation of Simplified Mathematical Model for Turbidity Currents. , 2008, , .		0

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127	Large-scale trials of a real-time acoustic backscatter system for solids concentration measurement during nuclear waste cleanup. , 2016, , .		0
128	Concentration profiling using a novel acoustic backscatter system with single transducers pulsed at multiple frequencies. , 2017, , .		0
129	Engineering Properties of Nuclear Waste Slurries. , 2009, , .		0
130	Hydraulic Behaviour of Nuclear Waste Flows. , 2009, , .		0
131	Sandstone Hosted Intrusions - A New Class of Short and Long-term Fluid Pathway. , 2012, , .		0
132	Characterising Nuclear Simulant Suspensions In Situ With an Acoustic Backscatter System. , 2013, , .		0
133	Sedimentology and architecture of early post-rift submarine lobe deposits; the Los Molles formation, Neuqu�n basin, Argentina. , 2016, , .		0
134	Keynote Speech - Physical Modelling of Submarine Channel Deposits - Towards First Order Prediction. , 2016, , .		0
135	Capturing flow transformation processes across an uneven seabed in coarse-grained sediment gravity flow deposits. , 2016, , .		0
136	Simultaneous velocity and concentration profiling of nuclear waste suspensions in pipe-flow, using ultrasonic Doppler and backscatter analysis. Proceedings of Meetings on Acoustics, 2021, , .	0.3	0