

Robert Dorrell

List of Publications by Year in descending order

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44
papers

1,455
citations

471509
17
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330143
37
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46
all docs

46
docs citations

46
times ranked

1686
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.	2.1	669
2	Turbulence Processes Within Turbidity Currents. <i>Annual Review of Fluid Mechanics</i> , 2021, 53, 59-83.	25.0	58
3	Flow dynamics and mixing processes in hydraulic jump arrays: Implications for channel-lobe transition zones. <i>Marine Geology</i> , 2016, 381, 181-193.	2.1	51
4	A 3D forward stratigraphic model of fluvial meander-bend evolution for prediction of point-bar lithofacies architecture. <i>Computers and Geosciences</i> , 2017, 105, 65-80.	4.2	49
5	First direct measurements of hydraulic jumps in an active submarine density current. <i>Geophysical Research Letters</i> , 2013, 40, 5904-5908.	4.0	48
6	An integrated process-based model of flutes and tool marks in deep-sea water environments: Implications for palaeohydraulics, the Bouma sequence and hybrid event beds. <i>Sedimentology</i> , 2020, 67, 1601-1666.	3.1	48
7	Hydrodynamics of fossil fishes. <i>Proceedings of the Royal Society B: Biological Sciences</i> , 2014, 281, 20140703.	2.6	43
8	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.	2.6	35
9	Superelevation and overspill control secondary flow dynamics in submarine channels. <i>Journal of Geophysical Research: Oceans</i> , 2013, 118, 3895-3915.	2.6	33
10	The critical role of stratification in submarine channels: Implications for channelization and long runout of flows. <i>Journal of Geophysical Research: Oceans</i> , 2014, 119, 2620-2641.	2.6	30
11	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.	4.0	30
12	Sedimentation of bidisperse suspensions. <i>International Journal of Multiphase Flow</i> , 2010, 36, 481-490.	3.4	29
13	The structure of the deposit produced by sedimentation of polydisperse suspensions. <i>Journal of Geophysical Research</i> , 2011, 116, n/a-n/a.	3.3	29
14	Polydisperse suspensions: Erosion, deposition, and flow capacity. <i>Journal of Geophysical Research F: Earth Surface</i> , 2013, 118, 1939-1955.	2.8	28
15	Length and Time Scales of Response of Sediment Suspensions to Changing Flow Conditions. <i>Journal of Hydraulic Engineering</i> , 2012, 138, 430-439.	1.5	25
16	Self-sharpening induces jet-like structure in seafloor gravity currents. <i>Nature Communications</i> , 2019, 10, 1381.	12.8	22
17	Pulse propagation in turbidity currents. <i>Sedimentology</i> , 2018, 65, 620-637.	3.1	19
18	The inherent instability of leveed seafloor channels. <i>Geophysical Research Letters</i> , 2015, 42, 4023-4031.	4.0	17

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19	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.	2.6	17
20	Hydrodynamic efficiency in sharks: the combined role of riblets and denticles. <i>Bioinspiration and Biomimetics</i> , 2021, 16, 046008.	2.9	16
21	Hydrodynamic studies of floating structures: Comparison of wave-structure interaction modelling. <i>Ocean Engineering</i> , 2022, 249, 110878.	4.3	14
22	A novel mixing mechanism in sinuous seafloor channels: Implications for submarine channel evolution. <i>Geomorphology</i> , 2018, 303, 1-12.	2.6	13
23	Novel 3D sequence stratigraphic numerical model for syn-rift basins: Analysing architectural responses to eustasy, sedimentation and tectonics. <i>Marine and Petroleum Geology</i> , 2018, 92, 270-284.	3.3	12
24	The effect of Schmidt number on gravity current flows: The formation of large-scale three-dimensional structures. <i>Physics of Fluids</i> , 2021, 33, .	4.0	11
25	Satellite data for the offshore renewable energy sector: Synergies and innovation opportunities. <i>Remote Sensing of Environment</i> , 2021, 264, 112588.	11.0	10
26	Inflation of Ponded, Particulate Laden Density Currents. <i>Journal of Sedimentary Research</i> , 2018, 88, 1276-1282.	1.6	9
27	The Structure and Entrainment Characteristics of Partially Confined Gravity Currents. <i>Journal of Geophysical Research: Oceans</i> , 2019, 124, 2110-2125.	2.6	8
28	Scaling Analysis of Multipulsed Turbidity Current Evolution With Application to Turbidite Interpretation. <i>Journal of Geophysical Research: Oceans</i> , 2018, 123, 3668-3684.	2.6	7
29	Quantifying faulting and base level controls on syn-rift sedimentation using stratigraphic architectures of coeval, adjacent Early-Middle Pleistocene fan deltas in Lake Corinth, Greece. <i>Basin Research</i> , 2019, 31, 1040-1065.	2.7	7
30	Machine learning for satellite-based sea-state prediction in an offshore windfarm. <i>Ocean Engineering</i> , 2021, 235, 109280.	4.3	7
31	A new modelling approach to sediment bypass prediction applied to the East Coast Basin, New Zealand. <i>Bulletin of the Geological Society of America</i> , 2021, 133, 1734-1748.	3.3	7
32	Optimisation of flow resistance and turbulent mixing over bed forms. <i>Environmental Modelling and Software</i> , 2018, 107, 141-147.	4.5	5
33	Relating the Flow Processes and Bedforms of Steady-State and Waning Density Currents. <i>Frontiers in Earth Science</i> , 2020, 8, .	1.8	5
34	Pulse propagation in gravity currents. <i>Physics of Fluids</i> , 2020, 32, 016603.	4.0	5
35	Observations of large-scale coherent structures in gravity currents: implications for flow dynamics. <i>Experiments in Fluids</i> , 2021, 62, 1.	2.4	5
36	Optimised mixing and flow resistance during shear flow over a rib roughened boundary. <i>International Communications in Heat and Mass Transfer</i> , 2014, 58, 54-62.	5.6	4

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37	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. Journal of Geophysical Research F: Earth Surface, 2014, 119, 2070-2073.	2.8	4
38	Dynamics and deposition of sediment-bearing multi-pulsed flows and geological implication. Journal of Sedimentary Research, 2019, 89, 1127-1139.	1.6	4
39	Equilibrium sediment transport, grade and discharge for suspended-load-dominated flows on Earth, Mars and Titan. Icarus, 2021, 360, 114243.	2.5	4
40	Equilibrium sediment transport by dilute turbidity currents: Comparison of competence-based and capacity-based models. Sedimentology, 2022, 69, 624-650.	3.1	4
41	Time-Domain Implementation and Analyses of Multi-Motion Modes of Floating Structures. Journal of Marine Science and Engineering, 2022, 10, 662.	2.6	4
42	Numerical errors at walls: on the sensitivity of RANS models to near-wall cell size. International Journal of Computational Fluid Dynamics, 2020, 34, 204-225.	1.2	3
43	The coupled dynamics of internal waves and hairpin vortices in stratified plane Poiseuille flow. Journal of Fluid Mechanics, 2022, 934, .	3.4	3
44	Graphics processing unit accelerated lattice Boltzmann method simulations of dilute gravity currents. Physics of Fluids, 2022, 34, .	4.0	2