Wim S J Uijttewaal

List of Publications by Year
in descending order

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115 papers	3,485 citations	126907 33 h-index	149698 56 g-index
121 all docs	121 docs citations	121 times ranked	2312 citing authors

#	Article	IF	Citations
1	Response of a submerged floating tunnel subject to flow-induced vibration. Engineering Structures, 2022, 253, 113809.	5.3	20
2	Wave Breaking Induced by Opposing Currents in Submerged Vegetation Canopies. Water Resources Research, 2022, 58, .	4.2	12
3	The performance of a weir-mounted tidal turbine: An experimental investigation. Renewable Energy, 2021, 168, 64-75.	8.9	3
4	Predictive model of bulk drag coefficient for a nature-based structure exposed to currents. Scientific Reports, 2021, 11, 3517.	3.3	12
5	Impacts of shearing and temperature on sewage sludge: Rheological characterisation and integration to flow assessment. Science of the Total Environment, 2021, 774, 145005.	8.0	7
6	The impacts of internal solitary waves on a submerged floating tunnel. Ocean Engineering, 2021, 238, 109762.	4.3	29
7	Distinct patterns of bank erosion in a navigable regulated river. Earth Surface Processes and Landforms, 2020, 45, 361-374.	2.5	10
8	Modeling of Breaching-Generated Turbidity Currents Using Large Eddy Simulation. Journal of Marine Science and Engineering, 2020, 8, 728.	2.6	7
9	Largeâ€Scale Experiments on Breaching Flow Slides and the Associated Turbidity Current. Journal of Geophysical Research F: Earth Surface, 2020, 125, e2020JF005582.	2.8	9
10	Bank Erosion Processes in Regulated Navigable Rivers. Journal of Geophysical Research F: Earth Surface, 2020, 125, e2019JF005441.	2.8	16
11	Impacts of extreme events on hydrodynamic characteristics of a submerged floating tunnel. Ocean Engineering, 2020, 218, 108221.	4.3	23
12	The Effect of Small Density Differences at River Confluences. Water (Switzerland), 2020, 12, 3084.	2.7	4
13	Optimization of submerged floating tunnel cross section based on parametric BÃ©zier curves and hybrid backpropagation - genetic algorithm. Marine Structures, 2020, 74, 102807.	3.8	20
14	Suppression of vertical flow separation over steep slopes in open channels by horizontal flow contraction. Journal of Fluid Mechanics, 2020, 885, .	3.4	5
15	Breaching Flow Slides and the Associated Turbidity Current. Journal of Marine Science and Engineering, 2020, 8, 67.	2.6	12
16	The performance of a weir-mounted tidal turbine: Field observations and theoretical modelling. Renewable Energy, 2020, 153, 601-614.	8.9	4
17	Urban River Water Level Increase Through Plastic Waste Accumulation at a Rack Structure. Frontiers in Earth Science, 2020, 8, .	1.8	59
18	Experimental investigation of the wave-induced motion of and force distribution along a flexible stem â€“ ERRATUM. Journal of Fluid Mechanics, 2020, 883, .	3.4	0

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19	A Laboratory Study of the Shallow Flow Field in a Vegetated Compound Channel. Springer Water, 2020, , 665-675.	0.3	0
20	Morphological Adaptation of River Channels to Vegetation Establishment: A Laboratory Study. Journal of Geophysical Research F: Earth Surface, 2019, 124, 1981-1995.	2.8	37
21	Experimental investigation of the wave-induced motion of and force distribution along a flexible stem. Journal of Fluid Mechanics, 2019, 880, 1036-1069.	3.4	25
22	Determining effects of spacer orientations on channel hydraulic conditions using PIV. Journal of Water Process Engineering, 2019, 31, 100820.	5.6	13
23	Exchange Processes Induced by Large Horizontal Coherent Structures in Floodplain Vegetated Channels. Water Resources Research, 2019, 55, 2014-2032.	4.2	24
24	Transverse Momentum Exchange Induced by Large Coherent Structures in a Vegetated Compound Channel. Water Resources Research, 2019, 55, 589-612.	4.2	25
25	Characterising the two-phase flow and mixing performance in a gas-mixed anaerobic digester: Importance for scaled-up applications. Water Research, 2019, 149, 86-97.	11.3	23
26	Impact of flow variability and sediment characteristics on channel width evolution in laboratory streams. Journal of Hydraulic Research/De Recherches Hydrauliques, 2019, 57, 51-61.	1.7	10
27	Experimental and mathematical characterisation of the rheological instability of concentrated waste activated sludge subject to anaerobic digestion. Chemical Engineering Journal, 2018, 349, 318-326.	12.7	11
28	On the stability of river bifurcations created by longitudinal training walls. Numerical investigation. Advances in Water Resources, 2018, 113, 112-125.	3.8	14
29	Sediment Transport of Fine Sand to Fine Gravel on Transverse Bed Slopes in Rotating Annular Flume Experiments. Water Resources Research, 2018, 54, 19-45.	4.2	54
30	Long-term morphological developments of river channels separated by a longitudinal training wall. Advances in Water Resources, 2018, 113, 73-85.	3.8	18
31	Morphodynamic effects of riparian vegetation growth after stream restoration. Earth Surface Processes and Landforms, 2018, 43, 1591-1607.	2.5	26
32	Hydrodynamic and Debris-Damming Failure of Bridge Decks and Piers in Steady Flow. Geosciences (Switzerland), 2018, 8, 409.	2.2	20
33	Observations and Analysis of the Horizontal Structure of a Tidal Jet at Deep Scour Holes. Journal of Geophysical Research F: Earth Surface, 2018, 123, 3162-3189.	2.8	9
34	Cycloid flows induced by the Large horizontal coherent structures in the vegetated compound channel. E3S Web of Conferences, 2018, 40, 02045.	0.5	2
35	Deriving vegetation drag coefficients in combined wave-current flows by calibration and direct measurement methods. Advances in Water Resources, 2018, 122, 217-227.	3.8	51
36	Natural recovery of infiltration capacity in simulated bank filtration of highly turbid waters. Water Research, 2018, 147, 299-310.	11.3	12

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37	Impact of flow variability and sediment characteristics on channel width evolution. E3S Web of Conferences, 2018, 40, 05044.	0.5	0
38	On the morphological evolution of restored banks: Case study of the Meuse river. E3S Web of Conferences, 2018, 40, 02021.	0.5	1
39	Bank erosion processes measured with UAV-SfM along complex banklines of a straight mid-sized river reach. Earth Surface Dynamics, 2018, 6, 933-953.	2.4	39
40	Development of a hybrid particle-mesh method for simulating free-surface flows. Journal of Hydrodynamics, 2017, 29, 413-422.	3.2	1
41	A Numerical Wave Tank Using a Hybrid Particle-mesh Approach. Procedia Engineering, 2017, 175, 21-28.	1.2	7
42	Armor breakup and reformation in a degradational laboratory experiment. Earth Surface Dynamics, 2016, 4, 461-470.	2.4	16
43	Measuring bathymetric evolution in mobile-bed laboratory flumes. , 2016, , .		1
44	Maximum overtopping forces on a dike-mounted wall with a shallowÂforeshore. Coastal Engineering, 2016, 116, 89-102.	4.0	29
45	Stone Stability under Stationary Nonuniform Flows. Journal of Hydraulic Engineering, 2016, 142, 04016061.	1.5	0
46	Efficiency of Hanging Silt Curtains in Crossflow. Journal of Waterway, Port, Coastal and Ocean Engineering, 2016, 142, .	1.2	11
47	Representing plants as rigid cylinders in experiments and models. Advances in Water Resources, 2016, 93, 205-222.	3.8	44
48	Effects of riparian vegetation development in a restored lowland stream. , 2016, , .		2
49	Rapid assessment of turbulence for feasibility design of hydraulic structures. , 2016, , .		0
50	Experimental study on the effects of longitudinal training walls. , 2016, , .		0
51	STUDY ON FLOW RESISTANCE FOR SUBMERGED SINGLE GROYNE. Journal of Japan Society of Civil Engineers Ser B1 (Hydraulic Engineering), 2015, 71, I_655-I_660.	0.1	0
52	Flow hydrodynamics in embankment breach. Journal of Hydrodynamics, 2015, 27, 835-844.	3.2	5
53	Effects of gradation on the long-shore transport processes and reshaping of rubble mound breakwaters under construction exposed to head-on and oblique waves. Coastal Engineering, 2015, 106, 87-111.	4.0	0
54	Effects of vegetation on flow and sediment transport: comparative analyses and validation of predicting models. Earth Surface Processes and Landforms, 2015, 40, 157-176.	2.5	152

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55	Forces on a vertical wall on a dike crest due to overtopping flow. Coastal Engineering, 2015, 95, 94-104.	4.0	48
56	Flow resistance of vegetated oblique weir-like obstacles during high water stages. Hydrology and Earth System Sciences, 2014, 18, 1-14.	4.9	28
57	Hydrodynamics of shallow flows: application to rivers. Journal of Hydraulic Research/De Recherches Hydrauliques, 2014, 52, 157-172.	1.7	34
58	Laboratory study on wave dissipation by vegetation in combined currentâ€“wave flow. Coastal Engineering, 2014, 88, 131-142.	4.0	160
59	COMPUTATIONS ON LATERAL MOMENTUM TRANSFER ON ROUGHNESS TRANSITION IN SHALLOW OPEN CHANNEL FLOWS. Journal of Japan Society of Civil Engineers, 2014, 2, 159-167.	0.2	0
60	Image analysis for measuring the size stratification in sandâ€“gravel laboratory experiments. Earth Surface Dynamics, 2014, 2, 217-232.	2.4	8
61	Flume experiments on entrainment of large wood in low-land rivers. Journal of Hydraulic Research/De Recherches Hydrauliques, 2013, 51, 581-588.	1.7	19
62	Flow Resistance of Vegetated Weirlike Obstacles during High Water Stages. Journal of Hydraulic Engineering, 2013, 139, 325-330.	1.5	10
63	Stability of Wide-Graded Rubble Mounds. Journal of Waterway, Port, Coastal and Ocean Engineering, 2013, 139, 157-170.	1.2	2
64	Flow separation at the inner (convex) and outer (concave) banks of constantâ€width and widening openâ€channel bends. Earth Surface Processes and Landforms, 2013, 38, 696-716.	2.5	92
65	COMPUTATIONS ON LATERAL MOMENTUM TRANSFER ON ROUGHNESS TRANSITION IN SHALLOW OPEN CHANNEL FLOWS. Journal of Japan Society of Civil Engineers Ser B1 (Hydraulic Engineering), 2013, 69, I_847-I_852.	0.1	0
66	Meander dynamics: A reducedâ€order nonlinear model without curvature restrictions for flow and bed morphology. Journal of Geophysical Research F: Earth Surface, 2013, 118, 1118-1131.	2.8	48
67	Ecohydraulics: linkages between hydraulics, morphodynamics and ecological processes in rivers. Ecohydrology, 2013, 6, 507-510.	2.4	2
68	Processes governing the flow redistribution in sharp river bends. Geomorphology, 2012, 163-164, 45-55.	2.6	79
69	Experimental and numerical findings on the longâ€term evolution of migrating alternate bars in alluvial channels. Water Resources Research, 2012, 48, .	4.2	80
70	Experimental and numerical evidence for intrinsic nonmigrating bars in alluvial channels. Water Resources Research, 2011, 47, .	4.2	77
71	Lateral transfer of streamwise momentum caused by a roughness transition across a shallow channel. Water Resources Research, 2011, 47, .	4.2	54
72	A systematic approach for the design of UV reactors using computational fluid dynamics. AICHE Journal, 2011, 57, 193-207.	3.6	35

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73	Large-eddy simulation of a curved open-channel flow over topography. Physics of Fluids, 2010, 22, .	4.0	61
74	Evaluation of experimental techniques to validate numerical computations of the hydraulics inside a UV bench-scale reactor. Chemical Engineering Science, 2010, 65, 4491-4502.	3.8	33
75	Evaluation of different disinfection calculation methods using CFD. Environmental Modelling and Software, 2010, 25, 573-582.	4.5	54
76	The weaknesses of a kâ€“É› model compared to a large-eddy simulation for the prediction of UV dose distributions and disinfection. Chemical Engineering Journal, 2010, 162, 528-536.	12.7	27
77	Assessment of a River Reach for Environmental Fluid Dynamics Studies. Journal of Hydraulic Engineering, 2010, 136, 880-888.	1.5	16
78	Wave and Flow Response to an Artificial Surf Reef: Laboratory Measurements. Journal of Hydraulic Engineering, 2010, 136, 299-310.	1.5	7
79	Analysis of the role of turbulence in curved open-channel flow at different water depths by means of experiments, LES and RANS. Journal of Turbulence, 2010, 11, N12.	1.4	56
80	Dynamics of shallow lateral shear layers: Experimental study in a river with a sandy bed. Water Resources Research, 2010, 46, .	4.2	67
81	In memory of Gerhard H. Jirka. Journal of Hydro-Environment Research, 2010, 4, 61-62.	2.2	0
82	URANS Computations of Shallow Grid Turbulence. Journal of Hydraulic Engineering, 2009, 135, 118-131.	1.5	34
83	Large-eddy simulation of a mildly curved open-channel flow. Journal of Fluid Mechanics, 2009, 630, 413-442.	3.4	73
84	The Relevance of a Back-Scatter Model for Depth-Averaged Flow Simulation. Flow, Turbulence and Combustion, 2009, 82, 73-91.	2.6	9
85	Particle-laden flow: from geophysical to Kolmogorov scales. Journal of Turbulence, 2009, 10, N38.	1.4	0
86	Seasonal forecast of cooling water problems in the River Rhine. Hydrological Processes, 2008, 22, 1037-1045.	2.6	10
87	Residence Time Distributions in Ozone Contactors. Ozone: Science and Engineering, 2008, 30, 49-57.	2.5	26
88	Interaction of Dune Face and Swash Zone. , 2007, , .		3
89	Sediment transport by coherent structures in a turbulent open channel flow experiment. , 2007, , 43-55.		2
90	Energy Content of Large-scale Turbulence in Wide Open Channel Flows. Springer Proceedings in Physics, 2007, , 297-300.	0.2	0

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91	A PIV/PTV experiment on sediment transport in a horizontal open channel flow. , 2006, , .		2
92	Experimental study of suspended sediment transport and deposition in a rectangular shallow reservoir. , 2006, , .		1
93	Emergence of large-scale coherent structures in a shallow separating flow. , 2006, , .		1
94	Horizontal Mixing in Shallow Flows. , 2005, , 55-68.		1
95	Momentum Exchange in Straight Uniform Compound Channel Flow. Journal of Hydraulic Engineering, 2005, 131, 175-183.	1.5	137
96	Effects of Groyne Layout on the Flow in Groyne Fields: Laboratory Experiments. Journal of Hydraulic Engineering, 2005, 131, 782-791.	1.5	145
97	The Flow in Groyne Fields. , 2005, , 231-246.		3
98	The complex flow in groyne fields: numerical modelling compared with experiments. , 2004, , 1331-1338.		5
99	Grid turbulence in shallow flows. Journal of Fluid Mechanics, 2003, 489, 325-344.	3.4	69
100	A linear approach for the evolution of coherent structures in shallow mixing layers. Physics of Fluids, 2002, 14, 4105-4114.	4.0	94
101	On the correspondence between morphological and hydrodynamical patterns of groyne fields. Earth Surface Processes and Landforms, 2002, 27, 289-305.	2.5	81
102	Exchange Processes between a River and Its Groyne Fields: Model Experiments. Journal of Hydraulic Engineering, 2001, 127, 928-936.	1.5	198
103	Effects of shallowness on the development of free-surface mixing layers. Physics of Fluids, 2000, 12, 392-402.	4.0	150
104	Modelling of the flow in rotating annular flumes. , 1999, , 339-348.		6
105	The Influence of Pressure Fluctuations on the Flow Between Armour Elements. , 1999, , .		0
106	Development of quasi two-dimensional structures in a shallow free-surface mixing layer. Experiments in Fluids, 1998, 24, 192-200.	2.4	67
107	Particle dispersion and deposition in direct numerical and large eddy simulations of vertical pipe flows. Physics of Fluids, 1996, 8, 2590-2604.	4.0	171
108	The motion of a droplet subjected to linear shear flow including the presence of a plane wall. Journal of Fluid Mechanics, 1995, 302, 45-63.	3.4	51

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109	Lateral migration of blood cells and microspheres in two-dimensional Poiseuille flow: A laser-Doppler study. Journal of Biomechanics, 1994, 27, 35-42.	2.1	41
110	A laser-Doppler system for measuring distributions of blood particles in narrow flow channels. IEEE Transactions on Instrumentation and Measurement, 1994, 43, 430-435.	4.7	8
111	Droplet migration, deformation, and orientation in the presence of a plane wall: A numerical study compared with analytical theories. Physics of Fluids A, Fluid Dynamics, 1993, 5, 819-825.	1.6	50
112	A loss measurement system in a test facility for high-current superconducting cables and wires. IEEE Transactions on Magnetics, 1988, 24, 1174-1177.	2.1	5
113	AN ANALYSIS OF LOSS MEASUREMENT SYSTEMS FOR HIGH-CURRENT SUPERCONDUCTORS. , 1988, , 883-887.		0
114	Submerged floating tunnel cross-section analysis using a transition turbulence model. Journal of Hydraulic Research/De Recherches Hydrauliques, 0, , 1-13.	1.7	2
115	Hydro- and morphodynamics in curved river reaches â€“ recent results and directions for future research. Advances in Geosciences, 0, 37, 19-25.	12.0	7