

Wim S J Uijtewaal

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	Exchange Processes between a River and Its Groyne Fields: Model Experiments. <i>Journal of Hydraulic Engineering</i> , 2001, 127, 928-936.	1.5	198
2	Particle dispersion and deposition in direct numerical and large eddy simulations of vertical pipe flows. <i>Physics of Fluids</i> , 1996, 8, 2590-2604.	4.0	171
3	Laboratory study on wave dissipation by vegetation in combined current"wave flow. <i>Coastal Engineering</i> , 2014, 88, 131-142.	4.0	160
4	Effects of vegetation on flow and sediment transport: comparative analyses and validation of predicting models. <i>Earth Surface Processes and Landforms</i> , 2015, 40, 157-176.	2.5	152
5	Effects of shallowness on the development of free-surface mixing layers. <i>Physics of Fluids</i> , 2000, 12, 392-402.	4.0	150
6	Effects of Groyne Layout on the Flow in Groyne Fields: Laboratory Experiments. <i>Journal of Hydraulic Engineering</i> , 2005, 131, 782-791.	1.5	145
7	Momentum Exchange in Straight Uniform Compound Channel Flow. <i>Journal of Hydraulic Engineering</i> , 2005, 131, 175-183.	1.5	137
8	A linear approach for the evolution of coherent structures in shallow mixing layers. <i>Physics of Fluids</i> , 2002, 14, 4105-4114.	4.0	94
9	Flow separation at the inner (convex) and outer (concave) banks of constant"width and widening open"channel bends. <i>Earth Surface Processes and Landforms</i> , 2013, 38, 696-716.	2.5	92
10	On the correspondence between morphological and hydrodynamical patterns of groyne fields. <i>Earth Surface Processes and Landforms</i> , 2002, 27, 289-305.	2.5	81
11	Experimental and numerical findings on the long"term evolution of migrating alternate bars in alluvial channels. <i>Water Resources Research</i> , 2012, 48, .	4.2	80
12	Processes governing the flow redistribution in sharp river bends. <i>Geomorphology</i> , 2012, 163-164, 45-55.	2.6	79
13	Experimental and numerical evidence for intrinsic nonmigrating bars in alluvial channels. <i>Water Resources Research</i> , 2011, 47, .	4.2	77
14	Large-eddy simulation of a mildly curved open-channel flow. <i>Journal of Fluid Mechanics</i> , 2009, 630, 413-442.	3.4	73
15	Grid turbulence in shallow flows. <i>Journal of Fluid Mechanics</i> , 2003, 489, 325-344.	3.4	69
16	Development of quasi two-dimensional structures in a shallow free-surface mixing layer. <i>Experiments in Fluids</i> , 1998, 24, 192-200.	2.4	67
17	Dynamics of shallow lateral shear layers: Experimental study in a river with a sandy bed. <i>Water Resources Research</i> , 2010, 46, .	4.2	67
18	Large-eddy simulation of a curved open-channel flow over topography. <i>Physics of Fluids</i> , 2010, 22, .	4.0	61

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19	Urban River Water Level Increase Through Plastic Waste Accumulation at a Rack Structure. <i>Frontiers in Earth Science</i> , 2020, 8, .	1.8	59
20	Analysis of the role of turbulence in curved open-channel flow at different water depths by means of experiments, LES and RANS. <i>Journal of Turbulence</i> , 2010, 11, N12.	1.4	56
21	Evaluation of different disinfection calculation methods using CFD. <i>Environmental Modelling and Software</i> , 2010, 25, 573-582.	4.5	54
22	Lateral transfer of streamwise momentum caused by a roughness transition across a shallow channel. <i>Water Resources Research</i> , 2011, 47, .	4.2	54
23	Sediment Transport of Fine Sand to Fine Gravel on Transverse Bed Slopes in Rotating Annular Flume Experiments. <i>Water Resources Research</i> , 2018, 54, 19-45.	4.2	54
24	The motion of a droplet subjected to linear shear flow including the presence of a plane wall. <i>Journal of Fluid Mechanics</i> , 1995, 302, 45-63.	3.4	51
25	Deriving vegetation drag coefficients in combined wave-current flows by calibration and direct measurement methods. <i>Advances in Water Resources</i> , 2018, 122, 217-227.	3.8	51
26	Droplet migration, deformation, and orientation in the presence of a plane wall: A numerical study compared with analytical theories. <i>Physics of Fluids A, Fluid Dynamics</i> , 1993, 5, 819-825.	1.6	50
27	Meander dynamics: A reduced-order nonlinear model without curvature restrictions for flow and bed morphology. <i>Journal of Geophysical Research F: Earth Surface</i> , 2013, 118, 1118-1131.	2.8	48
28	Forces on a vertical wall on a dike crest due to overtopping flow. <i>Coastal Engineering</i> , 2015, 95, 94-104.	4.0	48
29	Representing plants as rigid cylinders in experiments and models. <i>Advances in Water Resources</i> , 2016, 93, 205-222.	3.8	44
30	Lateral migration of blood cells and microspheres in two-dimensional Poiseuille flow: A laser-Doppler study. <i>Journal of Biomechanics</i> , 1994, 27, 35-42.	2.1	41
31	Bank erosion processes measured with UAV-SfM along complex banklines of a straight mid-sized river reach. <i>Earth Surface Dynamics</i> , 2018, 6, 933-953.	2.4	39
32	Morphological Adaptation of River Channels to Vegetation Establishment: A Laboratory Study. <i>Journal of Geophysical Research F: Earth Surface</i> , 2019, 124, 1981-1995.	2.8	37
33	A systematic approach for the design of UV reactors using computational fluid dynamics. <i>AIChE Journal</i> , 2011, 57, 193-207.	3.6	35
34	URANS Computations of Shallow Grid Turbulence. <i>Journal of Hydraulic Engineering</i> , 2009, 135, 118-131.	1.5	34
35	Hydrodynamics of shallow flows: application to rivers. <i>Journal of Hydraulic Research/De Recherches Hydrauliques</i> , 2014, 52, 157-172.	1.7	34
36	Evaluation of experimental techniques to validate numerical computations of the hydraulics inside a UV bench-scale reactor. <i>Chemical Engineering Science</i> , 2010, 65, 4491-4502.	3.8	33

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37	Maximum overtopping forces on a dike-mounted wall with a shallow foreshore. <i>Coastal Engineering</i> , 2016, 116, 89-102.	4.0	29
38	The impacts of internal solitary waves on a submerged floating tunnel. <i>Ocean Engineering</i> , 2021, 238, 109762.	4.3	29
39	Flow resistance of vegetated oblique weir-like obstacles during high water stages. <i>Hydrology and Earth System Sciences</i> , 2014, 18, 1-14.	4.9	28
40	The weaknesses of a RANS model compared to a large-eddy simulation for the prediction of UV dose distributions and disinfection. <i>Chemical Engineering Journal</i> , 2010, 162, 528-536.	12.7	27
41	Residence Time Distributions in Ozone Contactors. <i>Ozone: Science and Engineering</i> , 2008, 30, 49-57.	2.5	26
42	Morphodynamic effects of riparian vegetation growth after stream restoration. <i>Earth Surface Processes and Landforms</i> , 2018, 43, 1591-1607.	2.5	26
43	Experimental investigation of the wave-induced motion of and force distribution along a flexible stem. <i>Journal of Fluid Mechanics</i> , 2019, 880, 1036-1069.	3.4	25
44	Transverse Momentum Exchange Induced by Large Coherent Structures in a Vegetated Compound Channel. <i>Water Resources Research</i> , 2019, 55, 589-612.	4.2	25
45	Exchange Processes Induced by Large Horizontal Coherent Structures in Floodplain Vegetated Channels. <i>Water Resources Research</i> , 2019, 55, 2014-2032.	4.2	24
46	Characterising the two-phase flow and mixing performance in a gas-mixed anaerobic digester: Importance for scaled-up applications. <i>Water Research</i> , 2019, 149, 86-97.	11.3	23
47	Impacts of extreme events on hydrodynamic characteristics of a submerged floating tunnel. <i>Ocean Engineering</i> , 2020, 218, 108221.	4.3	23
48	Hydrodynamic and Debris-Damming Failure of Bridge Decks and Piers in Steady Flow. <i>Geosciences (Switzerland)</i> , 2018, 8, 409.	2.2	20
49	Optimization of submerged floating tunnel cross section based on parametric Bézier curves and hybrid backpropagation - genetic algorithm. <i>Marine Structures</i> , 2020, 74, 102807.	3.8	20
50	Response of a submerged floating tunnel subject to flow-induced vibration. <i>Engineering Structures</i> , 2022, 253, 113809.	5.3	20
51	Flume experiments on entrainment of large wood in low-land rivers. <i>Journal of Hydraulic Research/De Recherches Hydrauliques</i> , 2013, 51, 581-588.	1.7	19
52	Long-term morphological developments of river channels separated by a longitudinal training wall. <i>Advances in Water Resources</i> , 2018, 113, 73-85.	3.8	18
53	Assessment of a River Reach for Environmental Fluid Dynamics Studies. <i>Journal of Hydraulic Engineering</i> , 2010, 136, 880-888.	1.5	16
54	Armor breakup and reformation in a degradational laboratory experiment. <i>Earth Surface Dynamics</i> , 2016, 4, 461-470.	2.4	16

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55	Bank Erosion Processes in Regulated Navigable Rivers. <i>Journal of Geophysical Research F: Earth Surface</i> , 2020, 125, e2019JF005441.	2.8	16
56	On the stability of river bifurcations created by longitudinal training walls. Numerical investigation. <i>Advances in Water Resources</i> , 2018, 113, 112-125.	3.8	14
57	Determining effects of spacer orientations on channel hydraulic conditions using PIV. <i>Journal of Water Process Engineering</i> , 2019, 31, 100820.	5.6	13
58	Natural recovery of infiltration capacity in simulated bank filtration of highly turbid waters. <i>Water Research</i> , 2018, 147, 299-310.	11.3	12
59	Breaching Flow Slides and the Associated Turbidity Current. <i>Journal of Marine Science and Engineering</i> , 2020, 8, 67.	2.6	12
60	Predictive model of bulk drag coefficient for a nature-based structure exposed to currents. <i>Scientific Reports</i> , 2021, 11, 3517.	3.3	12
61	Wave Breaking Induced by Opposing Currents in Submerged Vegetation Canopies. <i>Water Resources Research</i> , 2022, 58, .	4.2	12
62	Efficiency of Hanging Silt Curtains in Crossflow. <i>Journal of Waterway, Port, Coastal and Ocean Engineering</i> , 2016, 142, .	1.2	11
63	Experimental and mathematical characterisation of the rheological instability of concentrated waste activated sludge subject to anaerobic digestion. <i>Chemical Engineering Journal</i> , 2018, 349, 318-326.	12.7	11
64	Seasonal forecast of cooling water problems in the River Rhine. <i>Hydrological Processes</i> , 2008, 22, 1037-1045.	2.6	10
65	Flow Resistance of Vegetated Weirlike Obstacles during High Water Stages. <i>Journal of Hydraulic Engineering</i> , 2013, 139, 325-330.	1.5	10
66	Impact of flow variability and sediment characteristics on channel width evolution in laboratory streams. <i>Journal of Hydraulic Research/De Recherches Hydrauliques</i> , 2019, 57, 51-61.	1.7	10
67	Distinct patterns of bank erosion in a navigable regulated river. <i>Earth Surface Processes and Landforms</i> , 2020, 45, 361-374.	2.5	10
68	The Relevance of a Back-Scatter Model for Depth-Averaged Flow Simulation. <i>Flow, Turbulence and Combustion</i> , 2009, 82, 73-91.	2.6	9
69	Observations and Analysis of the Horizontal Structure of a Tidal Jet at Deep Scour Holes. <i>Journal of Geophysical Research F: Earth Surface</i> , 2018, 123, 3162-3189.	2.8	9
70	Large-scale Experiments on Breaching Flow Slides and the Associated Turbidity Current. <i>Journal of Geophysical Research F: Earth Surface</i> , 2020, 125, e2020JF005582.	2.8	9
71	A laser-Doppler system for measuring distributions of blood particles in narrow flow channels. <i>IEEE Transactions on Instrumentation and Measurement</i> , 1994, 43, 430-435.	4.7	8
72	Image analysis for measuring the size stratification in sand-gravel laboratory experiments. <i>Earth Surface Dynamics</i> , 2014, 2, 217-232.	2.4	8

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73	Wave and Flow Response to an Artificial Surf Reef: Laboratory Measurements. Journal of Hydraulic Engineering, 2010, 136, 299-310.	1.5	7
74	A Numerical Wave Tank Using a Hybrid Particle-mesh Approach. Procedia Engineering, 2017, 175, 21-28.	1.2	7
75	Modeling of Breaching-Generated Turbidity Currents Using Large Eddy Simulation. Journal of Marine Science and Engineering, 2020, 8, 728.	2.6	7
76	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
77	Hydro- and morphodynamics in curved river reaches – recent results and directions for future research. Advances in Geosciences, 0, 37, 19-25.	12.0	7
78	Modelling of the flow in rotating annular flumes. , 1999, , 339-348.		6
79	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
80	Flow hydrodynamics in embankment breach. Journal of Hydrodynamics, 2015, 27, 835-844.	3.2	5
81	Suppression of vertical flow separation over steep slopes in open channels by horizontal flow contraction. Journal of Fluid Mechanics, 2020, 885, .	3.4	5
82	The complex flow in groyne fields: numerical modelling compared with experiments. , 2004, , 1331-1338.		5
83	The Effect of Small Density Differences at River Confluences. Water (Switzerland), 2020, 12, 3084.	2.7	4
84	The performance of a weir-mounted tidal turbine: Field observations and theoretical modelling. Renewable Energy, 2020, 153, 601-614.	8.9	4
85	The Flow in Groyne Fields. , 2005, , 231-246.		3
86	Interaction of Dune Face and Swash Zone. , 2007, , .		3
87	The performance of a weir-mounted tidal turbine: An experimental investigation. Renewable Energy, 2021, 168, 64-75.	8.9	3
88	Stability of Wide-Graded Rubble Mounds. Journal of Waterway, Port, Coastal and Ocean Engineering, 2013, 139, 157-170.	1.2	2
89	Ecohydraulics: linkages between hydraulics, morphodynamics and ecological processes in rivers. Ecohydrology, 2013, 6, 507-510.	2.4	2
90	Cycloid flows induced by the Large horizontal coherent structures in the vegetated compound channel. E3S Web of Conferences, 2018, 40, 02045.	0.5	2

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91	Submerged floating tunnel cross-section analysis using a transition turbulence model. Journal of Hydraulic Research/De Recherches Hydrauliques, 0, , 1-13.	1.7	2
92	Sediment transport by coherent structures in a turbulent open channel flow experiment. , 2007, , 43-55.		2
93	Effects of riparian vegetation development in a restored lowland stream. , 2016, , .		2
94	A PIV/PTV experiment on sediment transport in a horizontal open channel flow. , 2006, , .		2
95	Horizontal Mixing in Shallow Flows. , 2005, , 55-68.		1
96	Measuring bathymetric evolution in mobile-bed laboratory flumes. , 2016, , .		1
97	Development of a hybrid particle-mesh method for simulating free-surface flows. Journal of Hydrodynamics, 2017, 29, 413-422.	3.2	1
98	On the morphological evolution of restored banks: Case study of the Meuse river. E3S Web of Conferences, 2018, 40, 02021.	0.5	1
99	Experimental study of suspended sediment transport and deposition in a rectangular shallow reservoir. , 2006, , .		1
100	Emergence of large-scale coherent structures in a shallow separating flow. , 2006, , .		1
101	Particle-laden flow: from geophysical to Kolmogorov scales. Journal of Turbulence, 2009, 10, N38.	1.4	0
102	In memory of Gerhard H. Jirka. Journal of Hydro-Environment Research, 2010, 4, 61-62.	2.2	0
103	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
104	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
105	STUDY ON FLOW RESISTANCE FOR SUBMERGED SINGLE GROUYNE. Journal of Japan Society of Civil Engineers Ser B1 (Hydraulic Engineering), 2015, 71, I_655-I_660.	0.1	0
106	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
107	Stone Stability under Stationary Nonuniform Flows. Journal of Hydraulic Engineering, 2016, 142, 04016061.	1.5	0
108	Impact of flow variability and sediment characteristics on channel width evolution. E3S Web of Conferences, 2018, 40, 05044.	0.5	0

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109	Energy Content of Large-scale Turbulence in Wide Open Channel Flows. Springer Proceedings in Physics, 2007, , 297-300.	0.2	0
110	AN ANALYSIS OF LOSS MEASUREMENT SYSTEMS FOR HIGH-CURRENT SUPERCONDUCTORS. , 1988, , 883-887.		0
111	The Influence of Pressure Fluctuations on the Flow Between Armour Elements. , 1999, , .		0
112	Rapid assessment of turbulence for feasibility design of hydraulic structures. , 2016, , .		0
113	Experimental study on the effects of longitudinal training walls. , 2016, , .		0
114	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
115	A Laboratory Study of the Shallow Flow Field in a Vegetated Compound Channel. Springer Water, 2020, , 665-675.	0.3	0