Peter A Troch

List of Publications by Citations

104 papers	1,734 citations	24 h-index	35 g-index
118 ext. papers	2,069 ext. citations	3.4 avg, IF	5.03 L-index

#	Paper	IF	Citations
104	Wave Basin Experiments with Large Wave Energy Converter Arrays to Study Interactions between the Converters and Effects on Other Users in the Sea and the Coastal Area. *Energies*, **2014**, 7, 701-734	3.1	63
103	Effects of wind waves versus ship waves on tidal marsh plants: a flume study on different life stages of Scirpus maritimus. *PLoS ONE*, **2015**, 10, e0118687	3.7	60
102	Determination of the Manning roughness coefficient influenced by vegetation in the river Aa and Biebrza river. *Environmental Fluid Mechanics*, **2009**, 9, 549-567	2.2	55
101	Application of the time-dependent mild-slope equations for the simulation of wake effects in the lee of a farm of Wave Dragon wave energy converters. *Renewable Energy*, **2010**, 35, 1644-1661	8.1	55
100	Efficient and robust wave overtopping estimation for impermeable coastal structures in shallow foreshores using SWASH. *Coastal Engineering*, **2017**, 122, 108-123	4.8	54
99	Application of a buoyancy-modified k-SST turbulence model to simulate wave run-up around a monopile subjected to regular waves using OpenFOAM . *Coastal Engineering*, **2017**, 125, 81-94	4.8	53
98	Wave overtopping over a sea dike. *Journal of Computational Physics*, **2004**, 198, 686-726	4.1	53
97	SPH simulation of floating structures with moorings. *Coastal Engineering*, **2019**, 153, 103560	4.8	49
96	Numerical implementation and sensitivity analysis of a wave energy converter in a time-dependent mild-slope equation model. *Coastal Engineering*, **2010**, 57, 471-492	4.8	48
95	Effect of lubrication layer on velocity profile of concrete in a pumping pipe. *Materials and Structures/Materiaux Et Constructions*, **2015**, 48, 3991-4003	3.4	46
94	Coupling methodology for smoothed particle hydrodynamics modelling of non-linear wave-structure interactions. *Coastal Engineering*, **2018**, 138, 184-198	4.8	46
93	Performance of a buoyancy-modified k- and k-SST turbulence model for simulating wave breaking under regular waves using OpenFOAM . *Coastal Engineering*, **2018**, 138, 49-65	4.8	44
92	A methodology for production and cost assessment of a farm of wave energy converters. *Renewable Energy*, **2011**, 36, 3402-3416	8.1	41
91	An active wave generating-absorbing boundary condition for VOF type numerical model. *Coastal Engineering*, **1999**, 38, 223-247	4.8	40
90	Description of loading conditions due to violent wave impacts on a vertical structure with an overhanging horizontal cantilever slab. *Coastal Engineering*, **2012**, 60, 201-226	4.8	38
89	Empirical design of scour protections around monopile foundations. Part 2: Dynamic approach. *Coastal Engineering*, **2012**, 60, 286-298	4.8	34
88	Probability distribution of individual wave overtopping volumes for smooth impermeable steep slopes with low crest freeboards. *Coastal Engineering*, **2012**, 64, 87-101	4.8	34

87	Ecosystem Engineering by Plants on Wave-Exposed Intertidal Flats Is Governed by Relationships between Effect and Response Traits. *PLoS ONE*, **2015**, 10, e0138086	3.7	33
86	Empirical design of scour protections around monopile foundations. *Coastal Engineering*, **2011**, 58, 540-558	4.8	33
85	CFD Simulations of Floating Point Absorber Wave Energy Converter Arrays Subjected to Regular Waves. *Energies*, **2018**, 11, 641	3.1	30
84	2D numerical simulation of large-scale physical model tests of wave interaction with a rubble-mound breakwater. *Coastal Engineering*, **2015**, 103, 22-41	4.8	29
83	Submerged macrophytes avoiding a negative feedback in reaction to hydrodynamic stress. *Limnologica*, **2013**, 43, 371-380	2	29
82	Coping with waves: Plasticity in tidal marsh plants as self-adapting coastal ecosystem engineers. *Limnology and Oceanography*, **2018**, 63, 799-815	4.8	25
81	Investigation of uplift impact forces on a vertical wall with an overhanging horizontal cantilever slab. *Coastal Engineering*, **2014**, 90, 12-22	4.8	24
80	Numerical investigations of wave overtopping at coastal structures. *Coastal Engineering*, **2009**, 56, 190-202	4.8	24
79	Wave Overtopping at Smooth Impermeable Steep Slopes with Low Crest Freeboards. *Journal of Waterway, Port, Coastal and Ocean Engineering*, **2012**, 138, 372-385	1.7	23
78	Experimental study of violent wave impact on a vertical structure with an overhanging horizontal cantilever slab. *Ocean Engineering*, **2012**, 49, 1-15	3.9	22
77	Relation between resistance characteristics due to aquatic weed growth and the hydraulic capacity of the river Aa. *River Research and Applications*, **2009**, 25, 1287-1303	2.3	22
76	Risk assessment and water management. *Environmental Modelling and Software*, **2005**, 20, 141-151	5.2	22
75	A Review of Numerical Modelling of Wave Energy Converter Arrays **2012**,		21
74	Resistance and reconfiguration of natural flexible submerged vegetation in hydrodynamic river modelling. *Environmental Fluid Mechanics*, **2016**, 16, 245-265	2.2	20
73	Numerical simulation of formwork pressure while pumping self-compacting concrete bottom-up. *Engineering Structures*, **2014**, 70, 218-233	4.7	20
72	Full-scale wave-overtopping measurements on the Zeebrugge rubble mound breakwater. *Coastal Engineering*, **2004**, 51, 609-628	4.8	20
71	Instrumentation and prototype measurements at the Zeebrugge rubble mound breakwater. *Coastal Engineering*, **1998**, 35, 141-166	4.8	19
70	Non-linear wave generation and absorption using open boundaries within DualSPHysics. *Computer Physics Communications*, **2019**, 240, 46-59	4.2	19

69	Quantifying critical conditions for seaward expansion of tidal marshes: A transplantation experiment. *Estuarine, Coastal and Shelf Science*, **2016**, 169, 227-237	2.9	18
68	Biogeomorphic feedback between plant growth and flooding causes alternative stable states in an experimental floodplain. *Advances in Water Resources*, **2016**, 93, 223-235	4.7	17
67	A Comparison Study of a Generic Coupling Methodology for Modeling Wake Effects of Wave Energy Converter Arrays. *Energies*, **2017**, 10, 1697	3.1	17
66	Large-Scale Experiments to Improve Monopile Scour Protection Design Adapted to Climate Change—The PROTEUS Project. *Energies*, **2019**, 12, 1709	3.1	16
65	Implementation of Open Boundaries within a Two-Way Coupled SPH Model to Simulate Nonlinear Wave–Structure Interactions. *Energies*, **2019**, 12, 697	3.1	15
64	Influence of the viscosity of self-compacting concrete and the presence of rebars on the formwork pressure while filling bottom-up. *Engineering Structures*, **2015**, 101, 698-714	4.7	15
63	Sea-state modification and heaving float interaction factors from physical modelling of arrays of wave energy converters. *Journal of Renewable and Sustainable Energy*, **2015**, 7, 061705	2.5	15
62	Coupling Methodology for Studying the Far Field Effects of Wave Energy Converter Arrays over a Varying Bathymetry. *Energies*, **2018**, 11, 2899	3.1	15
61	Modelling river-floodplain interaction during flood propagation. *Natural Hazards*, **2010**, 55, 111-121	3	14
60	Interactions of breaking waves with a current over cut cells. *Journal of Computational Physics*, **2007**, 223, 865-897	4.1	14
59	Assessment of the Power Output of a Two-Array Clustered WEC Farm Using a BEM Solver Coupling and a Wave-Propagation Model. *Energies*, **2018**, 11, 2907	3.1	14
58	Effects of contrasting wave conditions on scour and drag on pioneer tidal marsh plants. *Geomorphology*, **2016**, 255, 49-62	4.3	13
57	An approximate solution to the flow field on vegetated intertidal platforms: Applicability and limitations. *Journal of Geophysical Research F: Earth Surface*, **2014**, 119, 1682-1703	3.8	13
56	Large Scale Experimental Study of the Scour Protection Damage Around a Monopile Foundation Under Combined Wave and Current Conditions. *Journal of Marine Science and Engineering*, **2020**, 8, 417	2.4	12
55	On the Effects of Geometry Control on the Performance of Overtopping Wave Energy Converters. *Energies*, **2011**, 4, 1574-1600	3.1	12
54	An improved calculation model for the wave-induced pore pressure distribution in a rubble-mound breakwater core. *Coastal Engineering*, **2012**, 66, 8-23	4.8	11
53	Field Monitoring of Ship Wave Action on Environmentally Friendly Bank Protection in a Confined Waterway. *Journal of Waterway, Port, Coastal and Ocean Engineering*, **2013**, 139, 527-534	1.7	11
52	What is a macrophyte patch? Patch identification in aquatic ecosystems and guidelines for consistent delineation. *Ecohydrology and Hydrobiology*, **2018**, 18, 1-9	2.8	11

51	Evaluation of the Effectiveness of a Living Shoreline in a Confined, Non-Tidal Waterway Subject to Heavy Shipping Traffic. *River Research and Applications*, **2015**, 31, 1028-1039	2.3	10
50	Effects of new variables on the overtopping discharge at steep rubble mound breakwaters The Zeebrugge case. *Coastal Engineering*, **2009**, 56, 141-153	4.8	10
49	A simplified model for frictionally dominated tidal flows. *Geophysical Research Letters*, **2012**, 39, n/a-n/a	4.9	10
48	Wave overtopping at coastal structures: prediction tools and related hazard analysis. *Journal of Cleaner Production*, **2007**, 15, 1514-1521	10.3	10
47	Irregular Wave Validation of a Coupling Methodology for Numerical Modelling of Near and Far Field Effects of Wave Energy Converter Arrays. *Energies*, **2019**, 12, 538	3.1	9
46	COMPARISON OF NUMERICAL MODELS FOR WAVE OVERTOPPING AND IMPACT ON A SEA WALL. *Coastal Engineering Proceedings*, **2015**, 1, 5	1.4	9
45	Validation of RANS Modelling for Wave Interactions with Sea Dikes on Shallow Foreshores Using a Large-Scale Experimental Dataset. *Journal of Marine Science and Engineering*, **2020**, 8, 650	2.4	9
44	Wake effect assessment of a flap type wave energy converter farm under realistic environmental conditions by using a numerical coupling methodology. *Coastal Engineering*, **2019**, 143, 96-112	4.8	9
43	Influence of the Drag Force on the Average Absorbed Power of Heaving Wave Energy Converters Using Smoothed Particle Hydrodynamics. *Water (Switzerland)*, **2021**, 13, 384	3	9
42	A fundamental coupling methodology for modeling near-field and far-field wave effects of floating structures and wave energy devices. *Renewable Energy*, **2019**, 143, 1608-1627	8.1	8
41	Accurate and Fast Generation of Irregular Short Crested Waves by Using Periodic Boundaries in a Mild-Slope Wave Model. *Energies*, **2019**, 12, 785	3.1	8
40	Analyzing the Near-Field Effects and the Power Production of an Array of Heaving Cylindrical WECs and OSWECs Using a Coupled Hydrodynamic-PTO Model. *Energies*, **2018**, 11, 3489	3.1	8
39	Efficient response of an onshore Oscillating Water Column Wave Energy Converter using a one-phase SPH model coupled with a multiphysics library. *Applied Ocean Research*, **2021**, 115, 102856	3.4	8
38	Experimental Study of a Moored Floating Oscillating Water Column Wave-Energy Converter and of a Moored Cubic Box. *Energies*, **2019**, 12, 1834	3.1	7
37	Accuracy of discharge measurements in a vegetated river. *Flow Measurement and Instrumentation*, **2008**, 19, 29-40	2.2	7
36	Development of Two-Dimensional Numerical Wave Flume for Wave Interaction with Rubble Mound Breakwaters **1999**, 1638		7
35	An Inter-Model Comparison for Wave Interactions with Sea Dikes on Shallow Foreshores. *Journal of Marine Science and Engineering*, **2020**, 8, 985	2.4	7
34	Deriving the relationship among discharge, biomass and Manning's coefficient through a calibration approach. *Hydrological Processes*, **2011**, 25, 1979-1995	3.3	6

33	Feasibility of a Dynamically Stable Rock Armour Layer Scour Protection for Offshore Wind Farms **2014**,		6
32	Internal Wave Generation in a Non-Hydrostatic Wave Model. *Water (Switzerland)*, **2019**, 11, 986	3	5
31	Efficiency and Survivability of a Floating Oscillating Water Column Wave Energy Converter Moored to the Seabed: An Overview of the EsflOWC MaRINET2 Database. *Water (Switzerland)*, **2020**, 12, 992	3	5
30	Validation of large-scale particle image velocimetry to acquire free-surface flow fields in vegetated rivers. *Journal of Applied Water Engineering and Research*, **2018**, 6, 171-182	1.2	5
29	NUMERICAL MODELING OF WAVE PENETRATION IN OSTEND HARBOUR. *Coastal Engineering Proceedings*, **2011**, 1, 42	1.4	5
28	Accelerated numerical simulations of a heaving floating body by coupling a motion solver with a two-phase fluid solver. *Computers and Mathematics With Applications*, **2019**, 77, 1605-1625	2.7	5
27	Modelling of a flap-type wave energy converter farm in a mild-slope equation model for a wake effect assessment. *IET Renewable Power Generation*, **2017**, 11, 1142-1152	2.9	3
26	Wake Effect Assessment in Long- and Short-Crested Seas of Heaving-Point Absorber and Oscillating Wave Surge WEC Arrays. *Water (Switzerland)*, **2019**, 11, 1126	3	3
25	Analysing the Near-Field Effects and the Power Production of Near-Shore WEC Array Using a New Wave-to-Wire Model. *Water (Switzerland)*, **2019**, 11, 1137	3	3
24	Hydrodynamic conditions in front of a vertical wall with an overhanging horizontal cantilever slab. *Journal of Ocean University of China*, **2017**, 16, 978-990	1	3
23	MODELLING OF WAVE ATTENUATION INDUCED BY MULTI-PURPOSE FLOATING STRUCTURES USED FOR POWER SUPPLY AND COASTAL PROTECTION. *Coastal Engineering Proceedings*, **2015**, 1, 20	1.4	3
22	Appropriate rehabilitation strategy for a traditional irrigation supply system: a case from the Babai area in Nepal. *Water Science and Technology*, **2009**, 60, 2819-28	2.2	3
21	Wave Run-Up on the Zeebrugge Rubble Mound Breakwater: Full-Scale Measurement Results Versus Laboratory Results. *Journal of Coastal Research*, **2007**, 233, 584-591	0.6	3
20	ROMS Based Hydrodynamic Modelling Focusing on the Belgian Part of the Southern North Sea. *Journal of Marine Science and Engineering*, **2021**, 9, 58	2.4	3
19	A geometric multigrid solver for the free-surface equation in environmental models featuring irregular coastlines. *Journal of Computational and Applied Mathematics*, **2015**, 289, 22-36	2.4	2
18	EXPERIMENTAL STUDY OF OVERTOPPING PERFORMANCE FOR THE CASES OF VERY STEEP SLOPES AND VERTICAL WALLS WITH VERY SMALL FREEBOARDS. *Coastal Engineering Proceedings*, **2015**, 1, 2	1.4	2
17	Fair and sustainable irrigation water management in the Babai basin, Nepal. *Water Science and Technology*, **2009**, 59, 1505-13	2.2	2
16	Water rights of the head reach farmers in view of a water supply scenario at the extension area of the Babai Irrigation Project, Nepal. *Physics and Chemistry of the Earth*, **2009**, 34, 99-106	3	2

15	Numerical modelling of the filling of formworks with self-compacting concrete **2010**,		2
14	Wave-induced uprush jet velocity on a vertical structure. *Ocean Engineering*, **2016**, 127, 103-113	3.9	2
13	A new average wave overtopping prediction formula with improved accuracy for smooth steep low-crested structures. *Coastal Engineering*, **2021**, 163, 103800	4.8	2
12	On the accuracy of internal wave generation method in a non-hydrostatic wave model to generate and absorb dispersive and directional waves. *Ocean Engineering*, **2021**, 219, 108303	3.9	2
11	A Critical Analysis and Validation of the Accuracy of Wave Overtopping Prediction Formulae for OWECs. *Energies*, **2018**, 11, 133	3.1	1
10	The gravity database for Belgium. *Geoscience Data Journal*, **2019**, 6, 116-125	2.5	1
9	Validation of the STRIVE model for coupling ecological processes and surface water flow. *Journal of Hydroinformatics*, **2011**, 13, 741-759	2.6	1
8	Wave Run-Up on the Zeebrugge Rubble Mound Breakwater: Full-Scale Measurement Results. *Journal of Coastal Research*, **2007**, 233, 577-583	0.6	1
7	Wave run-up on sloping coastal structures: prototype measurements versus scale model tests **2002** , 233-244		1
6	Wave Run-Up and Overtopping: Prototype Versus Scale Models **1999**, 1039		1
5	High-resolution, large-scale laboratory measurements of a sandy beach and dynamic cobble berm revetment. *Scientific Data*, **2021**, 8, 22	8.2	1
4	Quantification of Measurement and Model Effects in Monopile Foundation Scour Protection Experiments. *Journal of Marine Science and Engineering*, **2021**, 9, 585	2.4	0
3	Influence of Power Take-Off Modelling on the Far-Field Effects of Wave Energy Converter Farms. *Water (Switzerland)*, **2021**, 13, 429	3	0
2	THE INFLUENCE OF AN EXISTING VERTICAL STRUCTURE ON THE INCEPTION OF WAVE BREAKING POINT. *Coastal Engineering Proceedings*, **2015**, 1, 54	1.4	
1	Simulation of the filling and emptying processes between a river and its storage areas **2009**, 37-39		