Dick K-P Yue

List of Publications by Citations

113 papers	4,746 citations
33 h-index	67 g-index
123 ext. papers	5,505 ext. citations
3.5 avg, IF	5.59 L-index

#	Paper	IF	Citations
113	A high-order spectral method for the study of nonlinear gravity waves. *Journal of Fluid Mechanics*, **1987**, 184, 267-288	3.7	420
112	Drag reduction in fish-like locomotion. *Journal of Fluid Mechanics*, **1999**, 392, 183-212	3.7	409
111	Flapping dynamics of a flag in a uniform stream. *Journal of Fluid Mechanics*, **2007**, 581, 33-67	3.7	250
110	Interactions among multiple three-dimensional bodies in water waves: an exact algebraic method. *Journal of Fluid Mechanics*, **1986**, 166, 189	3.7	241
109	Three-dimensional flow structures and vorticity control in fish-like swimming. *Journal of Fluid Mechanics*, **2002**, 468, 1-28	3.7	179
108	The complete second-order diffraction solution for an axisymmetric body Part 1. Monochromatic incident waves. *Journal of Fluid Mechanics*, **1989**, 200, 235-264	3.7	156
107	On the water impact of general two-dimensional sections. *Applied Ocean Research*, **1999**, 21, 1-15	3.4	154
106	Numerical simulations of nonlinear axisymmetric flows with a free surface. *Journal of Fluid Mechanics*, **1987**, 178, 195-219	3.7	151
105	Turbulent flow over a flexible wall undergoing a streamwise travelling wave motion. *Journal of Fluid Mechanics*, **2003**, 484, 197-221	3.7	131
104	Deep-water plunging breakers: a comparison between potential theory and experiments. *Journal of Fluid Mechanics*, **1988**, 189, 423-442	3.7	127
103	The Coupled Boundary Layers and Air‐Sea Transfer Experiment in Low Winds. *Bulletin of the American Meteorological Society*, **2007**, 88, 341-356	6.1	121
102	On generalized Bragg scattering of surface waves by bottom ripples. *Journal of Fluid Mechanics*, **1998**, 356, 297-326	3.7	115
101	Conservative Volume-of-Fluid method for free-surface simulations on Cartesian-grids. *Journal of Computational Physics*, **2010**, 229, 2853-2865	4.1	108
100	On the effect of spacing on the vortex-induced vibrations of two tandem cylinders. *Journal of Fluids and Structures*, **2008**, 24, 833-854	3.1	104
99	Rogue wave occurrence and dynamics by direct simulations of nonlinear wave-field evolution. *Journal of Fluid Mechanics*, **2013**, 720, 357-392	3.7	98
98	The complete second-order diffraction solution for an axisymmetric body Part 2. Bichromatic incident waves and body motions. *Journal of Fluid Mechanics*, **1990**, 211, 557-593	3.7	94
97	Computations of fully nonlinear three-dimensional wave‐wave and wave‐body interactions. Part 1. Dynamics of steep three-dimensional waves. *Journal of Fluid Mechanics*, **2001**, 438, 11-39	3.7	91

#	Title	IF	Citations
96	Three-dimensionality effects in flow around two tandem cylinders. *Journal of Fluid Mechanics*, **2006**, 558, 387	3.7	85
95	Simulation of plunging wave impact on a vertical wall. *Journal of Fluid Mechanics*, **1996**, 327, 221-254	3.7	73
94	The surface layer for free-surface turbulent flows. *Journal of Fluid Mechanics*, **1999**, 386, 167-212	3.7	72
93	Forward diffraction of Stokes waves by a thin wedge. *Journal of Fluid Mechanics*, **1980**, 99, 33-52	3.7	70
92	Boundary data immersion method for Cartesian-grid simulations of fluid-body interaction problems. *Journal of Computational Physics*, **2011**, 230, 6233-6247	4.1	69
91	Cavity dynamics in water entry at low Froude numbers. *Journal of Fluid Mechanics*, **2009**, 641, 441-461	3.7	58
90	Large-eddy simulation of free-surface turbulence. *Journal of Fluid Mechanics*, **2001**, 440, 75-116	3.7	55
89	Computations of fully nonlinear three-dimensional wave–wave and wave–body interactions. Part 2. Nonlinear waves and forces on a body. *Journal of Fluid Mechanics*, **2001**, 438, 41-66	3.7	53
88	A hybrid element method for diffraction of water waves by three-dimensional bodies. *International Journal for Numerical Methods in Engineering*, **1978**, 12, 245-266	2.4	44
87	Effects of soluble and insoluble surfactant on laminar interactions of vortical flows with a free surface. *Journal of Fluid Mechanics*, **1995**, 289, 315-349	3.7	40
86	Optimal shape and motion of undulatory swimming organisms. *Proceedings of the Royal Society B: Biological Sciences*, **2012**, 279, 3065-74	4.4	39
85	A note on stabilizing the Benjamin–Feir instability. *Journal of Fluid Mechanics*, **2006**, 556, 45	3.7	37
84	Oblique sub- and super-harmonic Bragg resonance of surface waves by bottom ripples. *Journal of Fluid Mechanics*, **2010**, 643, 437-447	3.7	36
83	Turbulent diffusion near a free surface. *Journal of Fluid Mechanics*, **2000**, 407, 145-166	3.7	36
82	Sum-and Difference-Frequency Wave Loads on a Body in Unidirectional Gaussian Seas. *Journal of Ship Research*, **1991**, 35, 127-140	0.9	34
81	Swarm-Enabling Technology for Multi-Robot Systems. *Frontiers in Robotics and AI*, **2017**, 4,	2.8	33
80	Bragg resonance of waves in a two-layer fluid propagating over bottom ripples. Part II. Numerical simulation. *Journal of Fluid Mechanics*, **2009**, 624, 225-253	3.7	33
79	Bragg resonance of waves in a two-layer fluid propagating over bottom ripples. Part I. Perturbation analysis. *Journal of Fluid Mechanics*, **2009**, 624, 191-224	3.7	31

78	Resonantly excited regular and chaotic motions in a rectangular wave tank. *Journal of Fluid Mechanics*, **1990**, 216, 343-380	3.7	31
77	Nonlinear free-surface flow due to an impulsively started submerged point sink. *Journal of Fluid Mechanics*, **1998**, 364, 325-347	3.7	30
76	Boundary-element method for the prediction of performance of flapping foils with leading-edge separation. *Journal of Fluid Mechanics*, **2012**, 698, 446-467	3.7	29
75	Dynamics of a Three-Dimensional Oscillating Foil Near the Free Surface. *AIAA Journal*, **2006**, 44, 2997-3009	2.1	27
74	A high-order spectral method for nonlinear wave–body interactions. *Journal of Fluid Mechanics*, **1992**, 245, 115	3.7	27
73	Nonlinear phase-resolved reconstruction of irregular water waves. *Journal of Fluid Mechanics*, **2018**, 838, 544-572	3.7	25
72	Predictable zone for phase-resolved reconstruction and forecast of irregular waves. *Wave Motion*, **2018**, 77, 195-213	1.8	25
71	Investigation of coupled air-water turbulent boundary layers using direct numerical simulations. *Physics of Fluids*, **2009**, 21, 062108	4.4	25
70	Hydrodynamic object recognition using pressure sensing. *Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences*, **2011**, 467, 19-38	2.4	25
69	Effects of wavelength ratio on wave modelling. *Journal of Fluid Mechanics*, **1993**, 248, 107-127	3.7	25
68	Distributed system of autonomous buoys for scalable deployment and monitoring of large waterbodies. *Autonomous Robots*, **2018**, 42, 1669-1689	3	24
67	Direct numerical investigation of turbulence of capillary waves. *Physical Review Letters*, **2014**, 113, 094501	7.4	24
66	Nonlinear waves near a cut-off frequency in an acoustic duct – a numerical study. *Journal of Fluid Mechanics*, **1982**, 121, 465	3.7	22
65	Three-dimensional instability of standing waves. *Journal of Fluid Mechanics*, **2003**, 496, 213-242	3.7	21
64	The mechanism of vortex connection at a free surface. *Journal of Fluid Mechanics*, **1999**, 384, 207-241	3.7	20
63	Waves due to an oscillating and translating disturbance in a two-layer density-stratified fluid. *Journal of Engineering Mathematics*, **2009**, 65, 179-200	1.2	19
62	Nonlinear focusing of surface waves by a lens – theory and experiment. *Journal of Fluid Mechanics*, **1983**, 135, 71	3.7	19
61	Patterns and statistics of in-water polarization under conditions of linear and nonlinear ocean surface waves. *Journal of Geophysical Research*, **2011**, 116,		18

60	Hydrodynamic interaction analyses of very large floating structures. *Marine Structures*, **1993**, 6, 295-322	3.8	18
59	Slowly-varying wave drift forces in short-crested irregular seas. *Applied Ocean Research*, **1989**, 11, 2-18	3.4	18
58	Resonant interactions between Kelvin ship waves and ambient waves. *Journal of Fluid Mechanics*, **2008**, 597, 171-197	3.7	17
57	Numerical investigation of the water entry of cylinders without and with spin. *Journal of Fluid Mechanics*, **2017**, 814, 131-164	3.7	16
56	A fast multi-layer boundary element method for direct numerical simulation of sound propagation in shallow water environments. *Journal of Computational Physics*, **2019**, 392, 694-712	4.1	16
55	SPH for incompressible free-surface flows. Part I: Error analysis of the basic assumptions. *Computers and Fluids*, **2013**, 86, 611-624	2.8	16
54	Effect of surfactants on free-surface turbulent flows. *Journal of Fluid Mechanics*, **2004**, 506, 79-115	3.7	16
53	On the solution near the critical frequency for an oscillating and translating body in or near a free surface. *Journal of Fluid Mechanics*, **1993**, 254, 251-266	3.7	16
52	Physics-Based Learning Models for Ship Hydrodynamics. *Journal of Ship Research*, **2013**, 57, 1-12	0.9	14
51	Transport of passive scalar in turbulent shear flow under a clean or surfactant-contaminated free surface. *Journal of Fluid Mechanics*, **2011**, 670, 527-557	3.7	14
50	Attenuation of short surface waves by the sea floor via nonlinear sub-harmonic interaction. *Journal of Fluid Mechanics*, **2011**, 689, 529-540	3.7	14
49	Decaying capillary wave turbulence under broad-scale dissipation. *Journal of Fluid Mechanics*, **2015**, 780,	3.7	12
48	Evidence of holes in the Arnold tongues of flow past two oscillating cylinders. *Physical Review Letters*, **2006**, 96, 014501	7.4	12
47	Mixing of a passive scalar near a free surface. *Physics of Fluids*, **2001**, 13, 913-926	4.4	12
46	Scale separation and dependence of entrainment bubble-size distribution in free-surface turbulence. *Journal of Fluid Mechanics*, **2020**, 885,	3.7	12
45	Understanding discrete capillary-wave turbulence using a quasi-resonant kinetic equation. *Journal of Fluid Mechanics*, **2017**, 816,	3.7	11
44	Wake behind a three-dimensional dry transom stern. Part 1. Flow structure and large-scale air entrainment. *Journal of Fluid Mechanics*, **2019**, 875, 854-883	3.7	11
43	Deterministic and Stochastic Predictions of Motion Dynamics of Cylindrical Mines Falling Through Water. *IEEE Journal of Oceanic Engineering*, **2007**, 32, 21-33	3.3	11

42	SPH for incompressible free-surface flows. Part II: Performance of a modified SPH method. *Computers and Fluids*, **2013**, 86, 510-536	2.8	10
41	Physical limits on cellular directional mechanosensing. *Physical Review E*, **2013**, 87, 052716	2.4	10
40	Interactions between a free surface and a vortex sheet shed in the wake of a surface-piercing plate. *Journal of Fluid Mechanics*, **1993**, 257, 691	3.7	10
39	Phase-Resolved Wave Field Simulation Calibration of Sea Surface Reconstruction Using Noncoherent Marine Radar. *Journal of Atmospheric and Oceanic Technology*, **2016**, 33, 1135-1149	2	10
38	Numerical investigation of shear-flow free-surface turbulence and air entrainment at large Froude and Weber numbers. *Journal of Fluid Mechanics*, **2019**, 880, 209-238	3.7	9
37	Numerical dispersion and damping on steady waves with forward speed. *Applied Ocean Research*, **2005**, 27, 107-125	3.4	9
36	On the time dependence of the wave resistance of a body accelerating from rest. *Journal of Fluid Mechanics*, **1996**, 310, 337-364	3.7	9
35	Some properties of a hybrid element method for water waves. *International Journal for Numerical Methods in Engineering*, **1979**, 14, 1627-1641	2.4	9
34	Monte Carlo radiative transfer simulation for the near-ocean-surface high-resolution downwelling irradiance statistics. *Optical Engineering*, **2014**, 53, 051408	1.1	8
33	Radiative transfer in ocean turbulence and its effect on underwater light field. *Journal of Geophysical Research*, **2012**, 117, n/a-n/a		8
32	Hydrodynamics of cell-cell mechanical signaling in the initial stages of aggregation. *Physical Review E*, **2010**, 81, 041920	2.4	8
31	Hydrodynamics of periodic wave energy converter arrays. *Journal of Fluid Mechanics*, **2019**, 862, 34-74	3.7	8
30	Three-dimensional effects on flag flapping dynamics. *Journal of Fluid Mechanics*, **2015**, 783, 103-136	3.7	7
29	A model for the probability density function of downwelling irradiance under ocean waves. *Optics Express*, **2011**, 19, 17528-38	3.3	7
28	First- and second-order responses of a floating toroidal structure in long-crested irregular seas. *Applied Ocean Research*, **1993**, 15, 155-167	3.4	7
27	Persistent cellular motion control and trapping using mechanotactic signaling. *PLoS ONE*, **2014**, 9, e105406	3.7	7
26	Gradual Collective Upgrade of a Swarm of Autonomous Buoys for Dynamic Ocean Monitoring **2018**,		6
25	Interplay between motility and cell-substratum adhesion in amoeboid cells. *Biomicrofluidics*, **2015**, 9, 054112	3.2	5

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24	A space–time integral minimisation method for the reconstruction of velocity fields from measured scalar fields. *Journal of Fluid Mechanics*, **2018**, 854, 348-366	3.7	5
23	From Solar Cells to Ocean Buoys: Wide-Bandwidth Limits to Absorption by Metaparticle Arrays. *Physical Review Applied*, **2019**, 11,	4.3	4
22	Analytical solution of beam spread function for ocean light radiative transfer. *Optics Express*, **2015**, 23, 17966-78	3.3	4
21	Data assimilation method to de-noise and de-filter particle image velocimetry data. *Journal of Fluid Mechanics*, **2019**, 877, 196-213	3.7	4
20	Wake behind a three-dimensional dry transom stern. Part 2. Analysis and modelling of incompressible highly variable density turbulence. *Journal of Fluid Mechanics*, **2019**, 875, 884-913	3.7	4
19	Free-surface turbulent wake behind towed ship models: experimental measurements, stability analyses and direct numerical simulations. *Journal of Fluid Mechanics*, **2002**, 469, 89-120	3.7	4
18	A note on the singularity of an inner problem for head-sea diffraction by a slender body. *Journal of Fluid Mechanics*, **1981**, 109, 253-256	3.7	4
17	On high-order perturbation expansion for the study of long–short wave interactions. *Journal of Fluid Mechanics*, **2018**, 846, 902-915	3.7	4
16	Resonant-wave signature of an oscillating and translating disturbance in a two-layer density stratified fluid. *Journal of Fluid Mechanics*, **2011**, 675, 477-494	3.7	3
15	Computer-assisted teaching of marine hydrodynamics. *Computers and Education*, **1989**, 13, 279-303	9.5	3
14	Heterogeneous Swarms for Maritime Dynamic Target Search and Tracking **2020**,		3
13	Informed component label algorithm for robust identification of connected components with volume-of-fluid method. *Computers and Fluids*, **2020**, 197, 104373	2.8	3
12	Nonlinear radiated and diffracted waves due to the motions of a submerged circular cylinder. *Journal of Fluid Mechanics*, **1999**, 382, 263-282	3.7	2
11	Features of nonlinear interactions between a free surface and a shed vortex shear layer. *Physics of Fluids A, Fluid Dynamics*, **1991**, 3, 2485-2488		2
10	Hydrodynamics of large wave energy converter arrays with random configuration variations. *Journal of Fluid Mechanics*, **2021**, 923,	3.7	2
9	Optimisation of the geometry of axisymmetric point-absorber wave energy converters. *Journal of Fluid Mechanics*, **2022**, 933,	3.7	2
8	Energetics of optimal undulatory swimming organisms. *PLoS Computational Biology*, **2019**, 15, e10073875		1
7	Ocean Wave Prediction Using Large-Scale Phase-Resolved Computations **2009**,		1

6	**2006**,		1
5	Direct Phase-Resolved Simulations of Large-Scale Nonlinear Ocean Wave-Fields **2006**,		1
4	Structures and Mechanisms of Air-Entraining Quasi-Steady Breaking Ship Waves. *Journal of Ship Research*, **2019**, 63, 69-77	0.9	1
3	An efficient computational method for nonlinear three-dimensional wave-wave and wave-body interactions. *Journal of Hydrodynamics*, **2006**, 18, 84-88	3.3	
2	An efficient computational method for nonlinear three-dimensional wave-wave and wave-body interactions. *Journal of Hydrodynamics*, **2006**, 18, 84-88	3.3	
1	Modeling variation coefficient of wave-induced underwater irradiance for clear ocean and its application to find the optimal detector size. *Applied Optics*, **2018**, 57, 4785-4794	1.7	