Dick K-P Yue

List of Publications by Year
in descending order

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122 papers	6,260 citations	87843 38 h-index	69214 77 g-index
123 all docs	123 docs citations	123 times ranked	3114 citing authors

#	Article	IF	Citations
1	A high-order spectral method for the study of nonlinear gravity waves. Journal of Fluid Mechanics, 1987, 184, 267-288.	1.4	574
2	Drag reduction in fish-like locomotion. Journal of Fluid Mechanics, 1999, 392, 183-212.	1.4	523
3	Flapping dynamics of a flag in a uniform stream. Journal of Fluid Mechanics, 2007, 581, 33-67.	1.4	327
4	Interactions among multiple three-dimensional bodies in water waves: an exact algebraic method. Journal of Fluid Mechanics, 1986, 166, 189.	1.4	309
5	Three-dimensional flow structures and vorticity control in fish-like swimming. Journal of Fluid Mechanics, 2002, 468, 1-28.	1.4	223
6	The complete second-order diffraction solution for an axisymmetric body Part 1. Monochromatic incident waves. Journal of Fluid Mechanics, 1989, 200, 235-264.	1.4	193
7	On the water impact of general two-dimensional sections. Applied Ocean Research, 1999, 21, 1-15.	1.8	191
8	Conservative Volume-of-Fluid method for free-surface simulations on Cartesian-grids. Journal of Computational Physics, 2010, 229, 2853-2865.	1.9	168
9	Numerical simulations of nonlinear axisymmetric flows with a free surface. Journal of Fluid Mechanics, 1987, 178, 195-219.	1.4	165
10	Turbulent flow over a flexible wall undergoing a streamwise travelling wave motion. Journal of Fluid Mechanics, 2003, 484, 197-221.	1.4	156
11	The Coupled Boundary Layers and Airâ€“Sea Transfer Experiment in Low Winds. Bulletin of the American Meteorological Society, 2007, 88, 341-356.	1.7	154
12	On generalized Bragg scattering of surface waves by bottom ripples. Journal of Fluid Mechanics, 1998, 356, 297-326.	1.4	149
13	Deep-water plunging breakers: a comparison between potential theory and experiments. Journal of Fluid Mechanics, 1988, 189, 423-442.	1.4	144
14	Rogue wave occurrence and dynamics by direct simulations of nonlinear wave-field evolution. Journal of Fluid Mechanics, 2013, 720, 357-392.	1.4	143
15	On the effect of spacing on the vortex-induced vibrations of two tandem cylinders. Journal of Fluids and Structures, 2008, 24, 833-854.	1.5	141
16	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.	1.4	130
17	Three-dimensionality effects in flow around two tandem cylinders. Journal of Fluid Mechanics, 2006, 558, 387.	1.4	130
18	Computations of fully nonlinear three-dimensional waveâ€“wave and waveâ€“body interactions. Part 1. Dynamics of steep three-dimensional waves. Journal of Fluid Mechanics, 2001, 438, 11-39.	1.4	108

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19	Boundary data immersion method for Cartesian-grid simulations of fluid-body interaction problems. Journal of Computational Physics, 2011, 230, 6233-6247.	1.9	107
20	The surface layer for free-surface turbulent flows. Journal of Fluid Mechanics, 1999, 386, 167-212.	1.4	88
21	Forward diffraction of Stokes waves by a thin wedge. Journal of Fluid Mechanics, 1980, 99, 33-52.	1.4	87
22	Simulation of plunging wave impact on a vertical wall. Journal of Fluid Mechanics, 1996, 327, 221-254.	1.4	86
23	Cavity dynamics in water entry at low Froude numbers. Journal of Fluid Mechanics, 2009, 641, 441-461.	1.4	74
24	Computations of fully nonlinear three-dimensional waveâ€“wave and waveâ€“body interactions. Part 2. Nonlinear waves and forces on a body. Journal of Fluid Mechanics, 2001, 438, 41-66.	1.4	69
25	Large-eddy simulation of free-surface turbulence. Journal of Fluid Mechanics, 2001, 440, 75-116.	1.4	65
26	Effects of soluble and insoluble surfactant on laminar interactions of vortical flows with a free surface. Journal of Fluid Mechanics, 1995, 289, 315-349.	1.4	51
27	A hybrid element method for diffraction of water waves by three-dimensional bodies. International Journal for Numerical Methods in Engineering, 1978, 12, 245-266.	1.5	50
28	Swarm-Enabling Technology for Multi-Robot Systems. Frontiers in Robotics and AI, 2017, 4, .	2.0	50
29	A note on stabilizing the Benjaminâ€“Feir instability. Journal of Fluid Mechanics, 2006, 556, 45.	1.4	49
30	Optimal shape and motion of undulatory swimming organisms. Proceedings of the Royal Society B: Biological Sciences, 2012, 279, 3065-3074.	1.2	48
31	Turbulent diffusion near a free surface. Journal of Fluid Mechanics, 2000, 407, 145-166.	1.4	47
32	Oblique sub- and super-harmonic Bragg resonance of surface waves by bottom ripples. Journal of Fluid Mechanics, 2010, 643, 437-447.	1.4	47
33	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.	1.4	44
34	Predictable zone for phase-resolved reconstruction and forecast of irregular waves. Wave Motion, 2018, 77, 195-213.	1.0	43
35	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.	1.4	42
36	Sum-and Difference-Frequency Wave Loads on a Body in Unidirectional Gaussian Seas. Journal of Ship Research, 1991, 35, 127-140.	0.5	42

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37	Nonlinear phase-resolved reconstruction of irregular water waves. Journal of Fluid Mechanics, 2018, 838, 544-572.	1.4	41
38	Distributed system of autonomous buoys for scalable deployment and monitoring of large waterbodies. Autonomous Robots, 2018, 42, 1669-1689.	3.2	41
39	A high-order spectral method for nonlinear waveâ€“body interactions. Journal of Fluid Mechanics, 1992, 245, 115.	1.4	39
40	Direct Numerical Investigation of Turbulence of Capillary Waves. Physical Review Letters, 2014, 113, 094501.	2.9	38
41	Resonantly excited regular and chaotic motions in a rectangular wave tank. Journal of Fluid Mechanics, 1990, 216, 343-380.	1.4	37
42	Boundary-element method for the prediction of performance of flapping foils with leading-edge separation. Journal of Fluid Mechanics, 2012, 698, 446-467.	1.4	35
43	Effects of wavelength ratio on wave modelling. Journal of Fluid Mechanics, 1993, 248, 107-127.	1.4	33
44	Hydrodynamic object recognition using pressure sensing. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2011, 467, 19-38.	1.0	33
45	Nonlinear free-surface flow due to an impulsively started submerged point sink. Journal of Fluid Mechanics, 1998, 364, 325-347.	1.4	32
46	Nonlinear focusing of surface waves by a lens â€“ theory and experiment. Journal of Fluid Mechanics, 1983, 135, 71.	1.4	31
47	Dynamics of a Three-Dimensional Oscillating Foil Near the Free Surface. AIAA Journal, 2006, 44, 2997-3009.	1.5	31
48	The mechanism of vortex connection at a free surface. Journal of Fluid Mechanics, 1999, 384, 207-241.	1.4	30
49	Investigation of coupled air-water turbulent boundary layers using direct numerical simulations. Physics of Fluids, 2009, 21, .	1.6	28
50	Nonlinear waves near a cut-off frequency in an acoustic duct â€“ a numerical study. Journal of Fluid Mechanics, 1982, 121, 465.	1.4	27
51	Slowly-varying wave drift forces in short-crested irregular seas. Applied Ocean Research, 1989, 11, 2-18.	1.8	27
52	Three-dimensional instability of standing waves. Journal of Fluid Mechanics, 2003, 496, 213-242.	1.4	26
53	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.	1.9	26
54	Hydrodynamic interaction analyses of very large floating structures. Marine Structures, 1993, 6, 295-322.	1.6	24

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55	Waves due to an oscillating and translating disturbance in a two-layer density-stratified fluid. Journal of Engineering Mathematics, 2009, 65, 179-200.	0.6	24
56	Patterns and statistics of inâ€water polarization under conditions of linear and nonlinear ocean surface waves. Journal of Geophysical Research, 2011, 116, .	3.3	24
57	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.	1.4	23
58	Wake behind a three-dimensional dry transom stern. PartÂ1. Flow structure and large-scale air entrainment. Journal of Fluid Mechanics, 2019, 875, 854-883.	1.4	23
59	SPH for incompressible free-surface flows. Part I: Error analysis of the basic assumptions. Computers and Fluids, 2013, 86, 611-624.	1.3	21
60	Numerical investigation of the water entry of cylinders without and with spin. Journal of Fluid Mechanics, 2017, 814, 131-164.	1.4	21
61	Transport of passive scalar in turbulent shear flow under a clean or surfactant-contaminated free surface. Journal of Fluid Mechanics, 2011, 670, 527-557.	1.4	19
62	Numerical investigation of shear-flow free-surface turbulence and air entrainment atÂlarge Froude and Weber numbers. Journal of Fluid Mechanics, 2019, 880, 209-238.	1.4	19
63	Scale separation and dependence of entrainment bubble-size distribution in free-surface turbulence. Journal of Fluid Mechanics, 2020, 885, .	1.4	19
64	Resonant interactions between Kelvin ship waves and ambient waves. Journal of Fluid Mechanics, 2008, 597, 171-197.	1.4	18
65	Attenuation of short surface waves by the sea floor via nonlinear sub-harmonic interaction. Journal of Fluid Mechanics, 2011, 689, 529-540.	1.4	18
66	Decaying capillary wave turbulence under broad-scale dissipation. Journal of Fluid Mechanics, 2015, 780, .	1.4	18
67	Phase-Resolved Wave Field Simulation Calibration of Sea Surface Reconstruction Using Noncoherent Marine Radar. Journal of Atmospheric and Oceanic Technology, 2016, 33, 1135-1149.	0.5	18
68	Effect of surfactants on free-surface turbulent flows. Journal of Fluid Mechanics, 2004, 506, 79-115.	1.4	17
69	Physics-Based Learning Models for Ship Hydrodynamics. Journal of Ship Research, 2013, 57, 1-12.	0.5	17
70	Hydrodynamics of periodic wave energy converter arrays. Journal of Fluid Mechanics, 2019, 862, 34-74.	1.4	17
71	Evidence of Holes in the Arnold Tongues of Flow Past Two Oscillating Cylinders. Physical Review Letters, 2006, 96, 014501.	2.9	16
72	Understanding discrete capillary-wave turbulence using a quasi-resonant kineticÂequation. Journal of Fluid Mechanics, 2017, 816, .	1.4	16

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73	Deterministic and Stochastic Predictions of Motion Dynamics of Cylindrical Mines Falling Through Water. IEEE Journal of Oceanic Engineering, 2007, 32, 21-33.	2.1	15
74	Three-dimensional effects on flag flapping dynamics. Journal of Fluid Mechanics, 2015, 783, 103-136.	1.4	15
75	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.	1.4	13
76	Mixing of a passive scalar near a free surface. Physics of Fluids, 2001, 13, 913-926.	1.6	13
77	SPH for incompressible free-surface flows. Part II: Performance of a modified SPH method. Computers and Fluids, 2013, 86, 510-536.	1.3	13
78	Physical limits on cellular directional mechanosensing. Physical Review E, 2013, 87, 052716.	0.8	13
79	Gradual Collective Upgrade of a Swarm of Autonomous Buoys for Dynamic Ocean Monitoring. , 2018, , .		13
80	Data assimilation method to de-noise and de-filter particle image velocimetry data. Journal of Fluid Mechanics, 2019, 877, 196-213.	1.4	13
81	Some properties of a hybrid element method for water waves. International Journal for Numerical Methods in Engineering, 1979, 14, 1627-1641.	1.5	11
82	A model for the probability density function of downwelling irradiance under ocean waves. Optics Express, 2011, 19, 17528.	1.7	11
83	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.	1.4	11
84	Radiative transfer in ocean turbulence and its effect on underwater light field. Journal of Geophysical Research, 2012, 117, .	3.3	10
85	Heterogeneous Swarms for Maritime Dynamic Target Search and Tracking. , 2020, , .		10
86	On the time dependence of the wave resistance of a body accelerating from rest. Journal of Fluid Mechanics, 1996, 310, 337-364.	1.4	9
87	Free-surface turbulent wake behind towed ship models: experimental measurements, stability analyses and direct numerical simulations. Journal of Fluid Mechanics, 2002, 469, 89-120.	1.4	9
88	Numerical dispersion and damping on steady waves with forward speed. Applied Ocean Research, 2005, 27, 107-125.	1.8	9
89	Hydrodynamics of cell-cell mechanical signaling in the initial stages of aggregation. Physical Review E, 2010, 81, 041920.	0.8	9
90	Monte Carlo radiative transfer simulation for the near-ocean-surface high-resolution downwelling irradiance statistics. Optical Engineering, 2014, 53, 051408.	0.5	9

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91	First- and second-order responses of a floating toroidal structure in long-crested irregular seas. Applied Ocean Research, 1993, 15, 155-167.	1.8	8
92	Interplay between motility and cell-substratum adhesion in amoeboid cells. Biomicrofluidics, 2015, 9, 054112.	1.2	8
93	Informed component label algorithm for robust identification of connected components with volume-of-fluid method. Computers and Fluids, 2020, 197, 104373.	1.3	8
94	Persistent Cellular Motion Control and Trapping Using Mechanotactic Signaling. PLoS ONE, 2014, 9, e105406.	1.1	8
95	Optimisation of the geometry of axisymmetric point-absorber wave energy converters. Journal of Fluid Mechanics, 2022, 933, .	1.4	8
96	A spaceâ€“time integral minimisation method for the reconstruction of velocity fields from measured scalar fields. Journal of Fluid Mechanics, 2018, 854, 348-366.	1.4	6
97	From Solar Cells to Ocean Buoys: Wide-Bandwidth Limits to Absorption by Metaparticle Arrays. Physical Review Applied, 2019, 11, .	1.5	6
98	Ocean Wave Prediction Using Large-Scale Phase-Resolved Computations. , 2009, , .		5
99	Resonant-wave signature of an oscillating and translating disturbance in a two-layer density stratified fluid. Journal of Fluid Mechanics, 2011, 675, 477-494.	1.4	5
100	Analytical solution of beam spread function for ocean light radiative transfer. Optics Express, 2015, 23, 17966.	1.7	5
101	Effects of power-law entrainment on bubble fragmentation cascades. Journal of Fluid Mechanics, 2021, 917, .	1.4	5
102	Structures and Mechanisms of Air-Entraining Quasi-Steady Breaking Ship Waves. Journal of Ship Research, 2019, 63, 69-77.	0.5	5
103	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.	1.4	4
104	Computer-assisted teaching of marine hydrodynamics. Computers and Education, 1989, 13, 279-303.	5.1	4
105	On high-order perturbation expansion for the study of longâ€“short wave interactions. Journal of Fluid Mechanics, 2018, 846, 902-915.	1.4	4
106	Hydrodynamics of large wave energy converter arrays with random configuration variations. Journal of Fluid Mechanics, 2021, 923, .	1.4	4
107	Nonlinear radiated and diffracted waves due to the motions of a submerged circular cylinder. Journal of Fluid Mechanics, 1999, 382, 263-282.	1.4	3
108	Energetics of optimal undulatory swimming organisms. PLoS Computational Biology, 2019, 15, e1007387.	1.5	3

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109	Features of nonlinear interactions between a free surface and a shed vortex shear layer. Physics of Fluids A, Fluid Dynamics, 1991, 3, 2485-2488.	1.6	2
110	Direct Phase-Resolved Simulations of Large-Scale Nonlinear Ocean Wave-Fields. , 2006, , .		2
111	Ocean Wave Prediction Using Large-Scale Phase-Resolved Computations. , 2008, , .		2
112	Modelling entrainment volume due to surface-parallel vortex interactions with an airâ€“water interface. Journal of Fluid Mechanics, 2022, 938, .	1.4	2
113	Modeling Breaking Ship Waves for Design and Analysis of Naval Vessels. , 2006, , .		1
114	Computational Naval Ship Hydrodynamics. , 2009, , .		1
115	Large-Scale Deterministic Predictions of Nonlinear Ocean Wave-Fields. , 2010, , .		1
116	An efficient computational method for nonlinear three-dimensional wave-wave and wave-body interactions. Journal of Hydrodynamics, 2006, 18, 84-88.	1.3	0
117	An efficient computational method for nonlinear three-dimensional wave-wave and wave-body interactions. Journal of Hydrodynamics, 2006, 18, 84-88.	1.3	0
118	Hunting for Rogue Waves in a Three-Dimensional Nonlinear Wavefield: A Direct Simulation-Based Approach. , 2009, , .		0
119	Computational Naval Ship Hydrodynamics. , 2010, , .		0
120	Higher Order Resonant Interaction of Surface Waves by Undulatory Bottom Topography. , 2009, , .		0
121	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.	0.9	0
122	The instability of a helical vortex filament under a free surface. Journal of Fluid Mechanics, 2022, 937, .	1.4	0