Peter Franks

List of Publications by Year
in descending order

84 papers	5,524 citations	101543 36 h-index	82547 72 g-index
85 all docs	85 docs citations	85 times ranked	5658 citing authors

#	Article	IF	Citations
1	North Pacific Gyre Oscillation links ocean climate and ecosystem change. Geophysical Research Letters, 2008, 35, .	4.0	882
2	Biological Impacts of the 2013â€"2015 Warm-Water Anomaly in the Northeast Pacific: Winners, Losers, and the Future. Oceanography, 2016, 29, .	1.0	434
3	Bringing physics to life at the submesoscale. Geophysical Research Letters, 2012, 39, .	4.0	327
4	The role of submesoscale currents in structuring marine ecosystems. Nature Communications, 2018, 9, 4758.	12.8	234
5	NPZ Models of Plankton Dynamics: Their Construction, Coupling to Physics, and Application. Journal of Oceanography, 2002, 58, 379-387.	1.7	223
6	Swimming Against the Flow: A Mechanism of Zooplankton Aggregation. Science, 2005, 308, 860-862.	12.6	213
7	Behavior of a simple plankton model with food-level acclimation by herbivores. Marine Biology, 1986, 91, 121-129.	1.5	190
8	Alongshore transport of a toxic phytoplankton bloom in a buoyancy current: Alexandrium tamarense in the Gulf of Maine. Marine Biology, 1992, 112, 153-164.	1.5	139
9	A swarm of autonomous miniature underwater robot drifters for exploring submesoscale ocean dynamics. Nature Communications, 2017, 8, 14189.	12.8	137
10	Physical-biological sources for dense algal blooms near the Changjiang River. Geophysical Research Letters, 2003, 30, n/a-n/a.	4.0	135
11	A hierarchy of conceptual models of red-tide generation: Nutrition, behavior, and biological interactions. Harmful Algae, 2015, 47, 97-115.	4.8	120
12	Plankton production in tidal fronts: A model of Georges Bank in summer. Journal of Marine Research, 1996, 54, 631-651.	0.3	116
13	Spatial patterns in dense algal blooms. Limnology and Oceanography, 1997, 42, 1297-1305.	3.1	113
14	Nutrient and salinity decadal variations in the central and eastern North Pacific. Geophysical Research Letters, 2009, 36, .	4.0	111
15	Phytoplankton patches at fronts: A model of formation and response to wind events. Journal of Marine Research, 1997, 55, 1-29.	0.3	107
16	Models of harmful algal blooms. Limnology and Oceanography, 1997, 42, 1273-1282.	3.1	103
17	Thin layers of phytoplankton: a model of formation by near-inertial wave shear. Deep-Sea Research Part I: Oceanographic Research Papers, 1995, 42, 75-91.	1.4	98
18	Planktonic ecosystem models: perplexing parameterizations and a failure to fail. Journal of Plankton Research, 2009, 31, 1299-1306.	1.8	88

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19	Has Sverdrup's critical depth hypothesis been tested? Mixed layers vs. turbulent layers. ICES Journal of Marine Science, 2015, 72, 1897-1907.	2.5	83
20	Size-structured planktonic ecosystems: constraints, controls and assembly instructions. Journal of Plankton Research, 2010, 32, 1121-1130.	1.8	77
21	Modeling phytoplankton growth rates and chlorophyll to carbon ratios in California coastal and pelagic ecosystems. Journal of Geophysical Research, 2010, 115, .	3.3	71
22	Toxic phytoplankton blooms in the southwestern Gulf of Maine: testing hypotheses of physical control using historical data. Marine Biology, 1992, 112, 165-174.	1.5	64
23	Enhanced silica ballasting from iron stress sustains carbon export in a frontal zone within the California Current. Journal of Geophysical Research: Oceans, 2015, 120, 4654-4669.	2.6	64
24	A 3-D prognostic numerical model study of the Georges bank ecosystem. Part II: biologicalâ€"physical model. Deep-Sea Research Part II: Topical Studies in Oceanography, 2001, 48, 457-482.	1.4	63
25	Horizontal internalâ€tide fluxes support elevated phytoplankton productivity over the inner continental shelf. Limnology & Oceanography Fluids & Environments, 2011, 1, 56-74.	1.7	63
26	Enhanced nitrate fluxes and biological processes at a frontal zone in the southern California current system. Journal of Plankton Research, 2012, 34, 790-801.	1.8	59
27	The green ribbon: Multiscale physical control of phytoplankton productivity and community structure over a narrow continental shelf. Limnology and Oceanography, 2011, 56, 611-626.	3.1	58
28	Physical and biological processes underlying the sudden surface appearance of a red tide in the nearshore. Limnology and Oceanography, 2011, 56, 787-801.	3.1	56
29	Thin layers of plankton: Formation by shear and death by diffusion. Deep-Sea Research Part I: Oceanographic Research Papers, 2008, 55, 277-295.	1.4	55
30	The Scripps Plankton Camera system: A framework and platform for in situ microscopy. Limnology and Oceanography: Methods, 2020, 18, 681-695.	2.0	51
31	Timing is everything: Drivers of interannual variability in blue whale migration. Scientific Reports, 2020, 10, 7710.	3.3	49
32	Turbulence avoidance: An alternate explanation of turbulence-enhanced ingestion rates in the field. Limnology and Oceanography, 2001, 46, 959-963.	3.1	47
33	When Mixed Layers Are Not Mixed. Stormâ€Driven Mixing and Bioâ€optical Vertical Gradients in Mixed Layers of the Southern Ocean. Journal of Geophysical Research: Oceans, 2018, 123, 7264-7289.	2.6	47
34	A 3-D prognostic numerical model study of the Georges Bank ecosystem. Part I: physical model. Deep-Sea Research Part II: Topical Studies in Oceanography, 2001, 48, 419-456.	1.4	46
35	Inhibition of growth rate and swimming speed of the harmful dinoflagellate Cochlodinium polykrikoides by diatoms: Implications for red tide formation. Harmful Algae, 2014, 37, 53-61.	4.8	40
36	Simultaneous Imaging of Phytoplankton and Zooplankton Distributions. Oceanography, 1998, 11, 24-29.	1.0	40

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37	Ecological Transitions in a Coastal Upwelling Ecosystem. Oceanography, 2013, 26, 210-219.	1.0	38
38	TEMPORAL PATTERNS IN POPULATION GENETIC DIVERSITY OF PROROCENTRUM MICANS (DINOPHYCEAE)1. Journal of Phycology, 2004, 40, 239-247.	2.3	34
39	Episodic vertical nutrient fluxes and nearshore phytoplankton blooms in Southern California. Limnology and Oceanography, 2012, 57, 1673-1688.	3.1	34
40	Microscale variability in the distributions of large fluorescent particles observed in situ with a planar laser imaging fluorometer. Journal of Marine Systems, 2008, 69, 254-270.	2.1	33
41	Larval Atlantic cod (Gadus morhua) and haddock (Melanogrammus aeglefinus) growth on Georges Bank: a model with temperature, prey size, and turbulence forcing. Canadian Journal of Fisheries and Aquatic Sciences, 1999, 56, 25-36.	1.4	32
42	Physical and biological controls of vertical gradients in phytoplankton. Limnology & Oceanography Fluids & Environments, 2011, 1, 75-90.	1.7	31
43	Plankton dynamics in a cyclonic eddy in the <scp>S</scp>outhern <scp>C</scp>alifornia <scp>C</scp>urrent <scp>S</scp>ystem. Journal of Geophysical Research: Oceans, 2015, 120, 5566-5588.	2.6	30
44	Cryptic peaks: invisible vertical structure in fluorescent particles revealed using a planar laser imaging fluorometer. Limnology and Oceanography, 2010, 55, 1943-1958.	3.1	29
45	Crossing the line: Tunas actively exploit submesoscale fronts to enhance foraging success. Limnology and Oceanography Letters, 2017, 2, 187-194.	3.9	28
46	BACTERIAâ€•INDUCED MOTILITY REDUCTION IN <i>LINGULODINIUM POLYEDRUM</i> (DINOPHYCEAE)¹. Journal of Phycology, 2008, 44, 923-928.	2.3	27
47	Biogeochemical properties of eddies in the California Current System. Geophysical Research Letters, 2016, 43, 5812-5820.	4.0	22
48	Environmental drivers of population variability in colonyâ€forming marine diatoms. Limnology and Oceanography, 2020, 65, 2515-2528.	3.1	21
49	Influence of diurnal heating on stratification and residual circulation of Georges Bank. Journal of Geophysical Research, 2003, 108, .	3.3	20
50	Eddy properties in the Southern California Current System. Ocean Dynamics, 2018, 68, 761-777.	2.2	20
51	Semiâ€•and fully supervised quantification techniques to improve population estimates from machine classifiers. Limnology and Oceanography: Methods, 2020, 18, 739-753.	2.0	20
52	The impact of Scotian Shelf Water â€œcross-overâ€•on the plankton dynamics on Georges Bank: A 3-D experiment for the 1999 spring bloom. Deep-Sea Research Part II: Topical Studies in Oceanography, 2006, 53, 2684-2707.	1.4	19
53	Spring phytoplankton bloom and associated lower trophic level food web dynamics on Georges Bank: 1-D and 2-D model studies. Deep-Sea Research Part II: Topical Studies in Oceanography, 2006, 53, 2656-2683.	1.4	19
54	An Autonomous Open-Ocean Stereoscopic PIV Profiler. Journal of Atmospheric and Oceanic Technology, 2010, 27, 1362-1380.	1.3	18

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55	Recent Advances in Modelling of Harmful Algal Blooms. Ecological Studies, 2018, , 359-377.	1.2	17
56	Oceanic turbulence from a planktonic perspective. Limnology and Oceanography, 2022, 67, 348-363.	3.1	16
57	Model study of the cross-frontal water exchange on Georges Bank: A three-dimensional Lagrangian experiment. Journal of Geophysical Research, 2003, 108, .	3.3	15
58	Frontogenesis and the Creation of Fineâ€Scale Vertical Phytoplankton Structure. Journal of Geophysical Research: Oceans, 2019, 124, 1509-1523.	2.6	14
59	Comparing Vertical Distributions of Chl-a Fluorescence, Marine Snow, and Taxon-Specific Zooplankton in Relation to Density Using High-Resolution Optical Measurements. Frontiers in Marine Science, 2020, 7, .	2.5	14
60	New models for the exploration of biological processes at fronts. ICES Journal of Marine Science, 1997, 54, 161-167.	2.5	13
61	A novel crossâ€shore transport mechanism revealed by subsurface, robotic larval mimics: Internal wave deformation of the background velocity field. Limnology and Oceanography, 2020, 65, 1456-1470.	3.1	13
62	Copepod feeding quantified by planar laser imaging of gut fluorescence. Limnology and Oceanography: Methods, 2009, 7, 33-41.	2.0	12
63	Influence of variability in larval development on recruitment success in the euphausiid Euphausia pacificaâ€Š: elasticity and sensitivity analyses. Marine Biology, 1999, 133, 283-291.	1.5	11
64	Vertical distributions of Japanese sardine (Sardinops melanostictus) eggs: comparison of observations and a wind-forced Lagrangian mixing model. Fisheries Oceanography, 2008, 17, 89-100.	1.7	10
65	A pseudo-Lagrangian method for remapping ocean biogeochemical tracer data: Calculation of net Chl-a growth rates. Journal of Geophysical Research: Oceans, 2015, 120, 4962-4979.	2.6	10
66	Recovering growth and grazing rates from nonlinear dilution experiments. Limnology and Oceanography, 2017, 62, 1825-1835.	3.1	10
67	Stokes drift of plankton in linear internal waves: Crossâ€shore transport of neutrally buoyant and depthâ€keeping organisms. Limnology and Oceanography, 2020, 65, 1286-1296.	3.1	10
68	Reassessment of copepod grazing impact based on continuous time series of in vivo gut fluorescence from individual copepods. Journal of Plankton Research, 2012, 34, 55-71.	1.8	9
69	The importance of environment and life stage on interpretation of silky shark relative abundance indices for the equatorial Pacific Ocean. Fisheries Oceanography, 2019, 28, 43-53.	1.7	8
70	A view of physical mechanisms for transporting harmful algal blooms to Massachusetts Bay. Marine Pollution Bulletin, 2020, 154, 111048.	5.0	8
71	The California Undercurrent as a Source of Upwelled Waters in a Coastal Filament. Journal of Geophysical Research: Oceans, 2021, 126, e2020JC016602.	2.6	8
72	Smoothed estimation of unknown inputs and states in dynamic systems with application to oceanic flow field reconstruction. International Journal of Adaptive Control and Signal Processing, 2015, 29, 1224-1242.	4.1	7

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73	Larval crossâ€shore transport estimated from internal waves with a background flow: The effects of larval vertical position and depth regulation. Limnology and Oceanography, 2021, 66, 678-693.	3.1	7
74	Influence of bubbles and sand on chlorophyll-afluorescence measurements in the surfzone. Limnology and Oceanography: Methods, 2009, 7, 354-362.	2.0	6
75	Deformation of ambient chemical gradients by sinking spheres. Journal of Fluid Mechanics, 2020, 892, .	3.4	6
76	Benchmarking and Automating the Image Recognition Capability of an In Situ Plankton Imaging System. Frontiers in Marine Science, 0, 9, .	2.5	6
77	Skill assessment via cross-validation and Monte Carlo simulation: An application to Georges Bank plankton models. Journal of Marine Systems, 2009, 76, 134-150.	2.1	4
78	Estimating size-dependent growth and grazing rates and their associated errors using the dilution method. Limnology and Oceanography: Methods, 2012, 10, 868-881.	2.0	4
79	AUE: An Autonomous Float for Monitoring the Upper Water Column. , 2007, , .		3
80	Monthly to decadal variability of mesoscale stirring in the California Current System: Links To Upwelling, Climate Forcing, And Chlorophyll Transport.. Journal of Geophysical Research: Oceans, 0, , .	2.6	2
81	Reply to Buckley et al.Â's "Comment: Larval Atlantic cod and haddock growth models, metabolism, ingestion, and temperature effects". Canadian Journal of Fisheries and Aquatic Sciences, 2000, 57, 1961-1963.	1.4	1
82	Estimation of In Situ 3-D Particle Distributions From a Stereo Laser Imaging Profiler. IEEE Journal of Oceanic Engineering, 2011, 36, 586-601.	3.8	0
83	An ultraviolet dyegraph for measuring the chemical disturbances of sinking particles and swimming plankton. Limnology and Oceanography: Methods, 2020, 18, 707-716.	2.0	0
84	A Pseudoâ€Lagrangian Transformation to Study a Chlorophyllâ€a Patch in the RÃa de Vigo (NW Iberian) Tj ETQq0 0 0 rgBT /Overlock 10	2.6	0