

# Daniel L Rudnick

## List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

128  
papers

5,251  
citations

39  
h-index

68  
g-index

136  
ext. papers

6,074  
ext. citations

4  
avg, IF

5.98  
L-index

#	Paper	IF	Citations
128	A Four-Dimensional Survey of the Almeria-Oran Front by Underwater Gliders: Tracers and Circulation. <i>Journal of Physical Oceanography</i> , <b>2022</b> , 52, 225-242	2.4	0
127	Frontal Dynamics in the Alboran Sea: 2. Processes for Vertical Velocities Development. <i>Journal of Geophysical Research: Oceans</i> , <b>2022</b> , 127,	3.3	2
126	Frontal Dynamics in the Alboran Sea: 1. Coherent 3D Pathways at the Almeria-Oran Front Using Underwater Glider Observations. <i>Journal of Geophysical Research: Oceans</i> , <b>2022</b> , 127,	3.3	3
125	Broadband Submesoscale Vorticity Generated by Flow around an Island. <i>Journal of Physical Oceanography</i> , <b>2021</b> , 51, 1301-1317	2.4	1
124	The Equatorial Current System West of the Galápagos Islands during the 2014-16 El Niño as Observed by Underwater Gliders. <i>Journal of Physical Oceanography</i> , <b>2021</b> , 51, 3-17	2.4	2
123	Accurate pH and O <sub>2</sub> Measurements from Spray Underwater Gliders. <i>Journal of Atmospheric and Oceanic Technology</i> , <b>2021</b> , 38, 181-195	2	8
122	Near-Inertial Wave Propagation in the Wake of Super Typhoon Mangkhut: Measurements From a Profiling Float Array. <i>Journal of Geophysical Research: Oceans</i> , <b>2021</b> , 126, e2020JC016749	3.3	1
121	Temperature and salinity extremes from 2014-2019 in the California Current System and its source waters. <i>Communications Earth &amp; Environment</i> , <b>2021</b> , 2,	6.1	3
120	State of the California Current 2019-2020: Back to the Future With Marine Heatwaves?. <i>Frontiers in Marine Science</i> , <b>2021</b> , 8,	4.5	6
119	A Global Ocean Oxygen Database and Atlas for Assessing and Predicting Deoxygenation and Ocean Health in the Open and Coastal Ocean. <i>Frontiers in Marine Science</i> , <b>2021</b> , 8,	4.5	4
118	Contextualizing Marine Heatwaves in the Southern California Bight Under Anthropogenic Climate Change. <i>Journal of Geophysical Research: Oceans</i> , <b>2020</b> , 125, e2019JC015674	3.3	6
117	Advection by the North Equatorial Current of a Cold Wake due to Multiple Typhoons in the Western Pacific: Measurements From a Profiling Float Array. <i>Journal of Geophysical Research: Oceans</i> , <b>2020</b> , 125, e2019JC015534	3.3	4
116	Bifurcation and Upwelling of the Equatorial Undercurrent West of the Galápagos Archipelago. <i>Journal of Physical Oceanography</i> , <b>2020</b> , 50, 887-905	2.4	9
115	Coherent Pathways for Vertical Transport from the Surface Ocean to Interior. <i>Bulletin of the American Meteorological Society</i> , <b>2020</b> , 101, E1996-E2004	6.1	18
114	Volume and Heat Budgets in the Coastal California Current System: Means, Annual Cycles, and Interannual Anomalies of 2014-16. <i>Journal of Physical Oceanography</i> , <b>2020</b> , 50, 1435-1453	2.4	8
113	On the Predictability of Sea Surface Height around Palau. <i>Journal of Physical Oceanography</i> , <b>2020</b> , 50, 3267-3294	2.4	0
112	Observations of upper ocean sound-speed structures in the North Pacific and their effects on long-range acoustic propagation at low and mid-frequencies. <i>Journal of the Acoustical Society of America</i> , <b>2020</b> , 148, 2040	2.2	4

111	The Pacific Equatorial Undercurrent in Three Generations of Global Climate Models and Glider Observations. <i>Journal of Geophysical Research: Oceans</i> , <b>2020</b> , 125, e2020JC016609	3.3	6
110	Glider Observations of a Mesoscale Oceanic Island Wake. <i>Journal of Physical Oceanography</i> , <b>2019</b> , 49, 2217-2235	2.4	18
109	Comparison of 4DVAR and EnKF state estimates and forecasts in the Gulf of Mexico. <i>Quarterly Journal of the Royal Meteorological Society</i> , <b>2019</b> , 145, 1354-1376	6.4	4
108	100 Years of Progress in Ocean Observing Systems. <i>Meteorological Monographs</i> , <b>2019</b> , 59, 3.1-3.46	5.7	6
107	Global Perspectives on Observing Ocean Boundary Current Systems. <i>Frontiers in Marine Science</i> , <b>2019</b> , 6,	4.5	23
106	OceanGliders: A Component of the Integrated GOOS. <i>Frontiers in Marine Science</i> , <b>2019</b> , 6,	4.5	41
105	FLEAT: A Multiscale Observational and Modeling Program to Understand How Topography Affects Flows in the Western North Pacific. <i>Oceanography</i> , <b>2019</b> , 32, 10-21	2.3	11
104	Nonlinear Short-Term Upper Ocean Circulation Variability in the Tropical Western Pacific. <i>Oceanography</i> , <b>2019</b> , 32, 22-31	2.3	5
103	The End of an El Niño: A View from Palau. <i>Oceanography</i> , <b>2019</b> , 32, 32-45	2.3	16
102	Understanding Vorticity Caused by Flow Passing an Island. <i>Oceanography</i> , <b>2019</b> , 32, 66-73	2.3	8
101	Ngaraard Pinnacle, Palau: An Undersea Island in the Flow. <i>Oceanography</i> , <b>2019</b> , 32, 164-173	2.3	2
100	Eddies, Topography, and the Abyssal Flow by the Kyushu-Palau Ridge Near Velasco Reef. <i>Oceanography</i> , <b>2019</b> , 32, 46-55	2.3	6
99	Energy Transfer in the Western Tropical Pacific. <i>Oceanography</i> , <b>2019</b> , 32, 136-145	2.3	5
98	Underwater Gliders. <i>Springer Oceanography</i> , <b>2018</b> , 123-139	0.5	5
97	Development, implementation, and validation of a California coastal ocean modeling, data assimilation, and forecasting system. <i>Deep-Sea Research Part II: Topical Studies in Oceanography</i> , <b>2018</b> , 151, 49-63	2.3	15
96	Annual and Interannual Variability in the California Current System: Comparison of an Ocean State Estimate with a Network of Underwater Gliders. <i>Journal of Physical Oceanography</i> , <b>2018</b> , 48, 2965-2988	2.4	16
95	Depth-Average Velocity from Spray Underwater Gliders. <i>Journal of Atmospheric and Oceanic Technology</i> , <b>2018</b> , 35, 1665-1673	2	25
94	Absolute Velocity Estimates from Autonomous Underwater Gliders Equipped with Doppler Current Profilers. <i>Journal of Atmospheric and Oceanic Technology</i> , <b>2017</b> , 34, 309-333	2	45

93	A climatology of the California Current System from a network of underwater gliders. <i>Progress in Oceanography</i> , <b>2017</b> , 154, 64-106	3.8	60
92	The origins of the anomalous warming in the California coastal ocean and San Francisco Bay during 2014-2016. <i>Journal of Geophysical Research: Oceans</i> , <b>2017</b> , 122, 7537-7557	3.3	16
91	Autonomous Instruments Significantly Expand Ocean Observing: An Introduction to the Special Issue. <i>Oceanography</i> , <b>2017</b> , 30, 15-17	2.3	2
90	Estimation of the Tropical Pacific Ocean State 2010-13. <i>Journal of Atmospheric and Oceanic Technology</i> , <b>2017</b> , 34, 1501-1517	2	9
89	Mindanao Current and Undercurrent: Thermohaline Structure and Transport from Repeat Glider Observations. <i>Journal of Physical Oceanography</i> , <b>2017</b> , 47, 2055-2075	2.4	17
88	Seasonal and interannual variability in along-slope oceanic properties off the US West Coast: Inferences from a high-resolution regional model. <i>Journal of Geophysical Research: Oceans</i> , <b>2017</b> , 122, 5237-5259	3.3	13
87	Fine-scale variability of isopycnal salinity in the California Current System. <i>Journal of Geophysical Research: Oceans</i> , <b>2017</b> , 122, 7066-7081	3.3	6
86	Ocean Research Enabled by Underwater Gliders. <i>Annual Review of Marine Science</i> , <b>2016</b> , 8, 519-41	15.4	146
85	ASIRI: An Ocean Atmosphere Initiative for Bay of Bengal. <i>Bulletin of the American Meteorological Society</i> , <b>2016</b> , 97, 1859-1884	6.1	55
84	Potential Vorticity Structure in the North Atlantic Western Boundary Current from Underwater Glider Observations. <i>Journal of Physical Oceanography</i> , <b>2016</b> , 46, 327-348	2.4	26
83	A Tale of Two Spicy Seas. <i>Oceanography</i> , <b>2016</b> , 29, 50-61	2.3	31
82	Modification of Upper-Ocean Temperature Structure by Subsurface Mixing in the Presence of Strong Salinity Stratification. <i>Oceanography</i> , <b>2016</b> , 29, 62-71	2.3	34
81	Decay Mechanisms of Near-Inertial Mixed Layer Oscillations in the Bay of Bengal. <i>Oceanography</i> , <b>2016</b> , 29, 180-191	2.3	22
80	Spray Underwater Glider Operations. <i>Journal of Atmospheric and Oceanic Technology</i> , <b>2016</b> , 33, 1113-1122		25
79	Impacts of the 2015-2016 El Niño on the California Current System: Early assessment and comparison to past events. <i>Geophysical Research Letters</i> , <b>2016</b> , 43, 7072-7080	4.9	197
78	The 2014-2015 warming anomaly in the Southern California Current System observed by underwater gliders. <i>Geophysical Research Letters</i> , <b>2016</b> , 43, 1241-1248	4.9	106
77	The formation and fate of internal waves in the South China Sea. <i>Nature</i> , <b>2015</b> , 521, 65-9	50.4	298
76	Cyclonic Eddies in the Gulf of Mexico: Observations by Underwater Gliders and Simulations by Numerical Model. <i>Journal of Physical Oceanography</i> , <b>2015</b> , 45, 313-326	2.4	38

75	The potential for improving remote primary productivity estimates through subsurface chlorophyll and irradiance measurement. <i>Deep-Sea Research Part II: Topical Studies in Oceanography</i> , <b>2015</b> , 112, 107-116	2.3	24
74	Trapped diurnal internal tides, propagating semidiurnal internal tides, and mixing estimates in the California Current System from sustained glider observations, 2006-2012. <i>Deep-Sea Research Part II: Topical Studies in Oceanography</i> , <b>2015</b> , 112, 61-78	2.3	25
73	Near-inertial kinetic energy budget of the mixed layer and shear evolution in the transition layer in the Arabian Sea during the monsoons. <i>Journal of Geophysical Research: Oceans</i> , <b>2015</b> , 120, 6492-6507	3.3	3
72	A New Paradigm for the North Pacific Subthermocline Low-Latitude Western Boundary Current System. <i>Journal of Physical Oceanography</i> , <b>2015</b> , 45, 2407-2423	2.4	26
71	Standing Internal Tides in the Tasman Sea Observed by Gliders. <i>Journal of Physical Oceanography</i> , <b>2015</b> , 45, 2715-2737	2.4	29
70	The Pacific North Equatorial Current: New Insights from the Origins of the Kuroshio and Mindanao Currents (OKMC) Project. <i>Oceanography</i> , <b>2015</b> , 28, 24-33	2.3	34
69	The Mindanao Current: Mean Structure and Connectivity. <i>Oceanography</i> , <b>2015</b> , 28, 34-45	2.3	29
68	A New Look at Circulation in the Western North Pacific: Introduction to the Special Issue. <i>Oceanography</i> , <b>2015</b> , 28, 16-23	2.3	41
67	Glider observations of the North Equatorial Current in the western tropical Pacific. <i>Journal of Geophysical Research: Oceans</i> , <b>2015</b> , 120, 3586-3605	3.3	36
66	State estimates and forecasts of the loop current in the Gulf of Mexico using the MITgcm and its adjoint. <i>Journal of Geophysical Research: Oceans</i> , <b>2013</b> , 118, 3292-3314	3.3	29
65	Propagation of internal tides generated near Luzon Strait: Observations from autonomous gliders. <i>Journal of Geophysical Research: Oceans</i> , <b>2013</b> , 118, 4125-4138	3.3	26
64	Internal tidal energy fluxes in the South China Sea from density and velocity measurements by gliders. <i>Journal of Geophysical Research: Oceans</i> , <b>2013</b> , 118, 3939-3949	3.3	17
63	High-frequency internal waves near the Luzon Strait observed by underwater gliders. <i>Journal of Geophysical Research: Oceans</i> , <b>2013</b> , 118, 774-784	3.3	30
62	Quasi-stationary North Equatorial Undercurrent jets across the tropical North Pacific Ocean. <i>Geophysical Research Letters</i> , <b>2013</b> , 40, 2183-2187	4.9	60
61	Autonomous Ocean Measurements in the California Current Ecosystem. <i>Oceanography</i> , <b>2013</b> , 26, 18-25	2.3	34
60	The spatial distribution and annual cycle of upper ocean thermohaline structure. <i>Journal of Geophysical Research</i> , <b>2012</b> , 117, n/a-n/a		35
59	Thermohaline structure in the California Current System: Observations and modeling of spice variance. <i>Journal of Geophysical Research</i> , <b>2012</b> , 117, n/a-n/a		33
58	A national glider network for sustained observation of the coastal ocean <b>2012</b> ,		4

57	Resolution of fine biological structure including small narcomedusae across a front in the Southern California Bight. <i>Journal of Geophysical Research</i> , <b>2012</b> , 117, n/a-n/a		40
56	Underwater gliders reveal rapid arrival of El Niño effects off California's coast. <i>Geophysical Research Letters</i> , <b>2011</b> , 38, n/a-n/a	4.9	49
55	Poleward flows in the southern California Current System: Glider observations and numerical simulation. <i>Journal of Geophysical Research</i> , <b>2011</b> , 116,		85
54	Internal tidal beams and mixing near Monterey Bay. <i>Journal of Geophysical Research</i> , <b>2011</b> , 116,		34
53	On sampling the ocean using underwater gliders. <i>Journal of Geophysical Research</i> , <b>2011</b> , 116,		96
52	Seasonal and Mesoscale Variability of the Kuroshio Near Its Origin. <i>Oceanography</i> , <b>2011</b> , 24, 52-63	2.3	90
51	Elevated mixing at a front. <i>Journal of Geophysical Research</i> , <b>2011</b> , 116,		35
50	Effects of upper ocean sound-speed structure on deep acoustic shadow-zone arrivals at 500- and 1000-km range. <i>Journal of the Acoustical Society of America</i> , <b>2010</b> , 127, 2169-81	2.2	20
49	Seasonal evolution of upper-ocean horizontal structure and the remnant mixed layer. <i>Journal of Geophysical Research</i> , <b>2010</b> , 115,		26
48	Frontal dynamics in a California Current System shallow front: 1. Frontal processes and tracer structure. <i>Journal of Geophysical Research</i> , <b>2010</b> , 115,		25
47	Frontal dynamics in a California Current System shallow front: 2. Mesoscale vertical velocity. <i>Journal of Geophysical Research</i> , <b>2010</b> , 115,		17
46	The vertical structure of shadow-zone arrivals at long range in the ocean. <i>Journal of the Acoustical Society of America</i> , <b>2009</b> , 125, 3569-88	2.2	32
45	Observations of the Transition Layer. <i>Journal of Physical Oceanography</i> , <b>2009</b> , 39, 780-797	2.4	57
44	Monitoring the greater San Pedro Bay region using autonomous underwater gliders during fall of 2006. <i>Journal of Geophysical Research</i> , <b>2009</b> , 114,		44
43	Observations of Tidal Internal Wave Beams at Kauai Channel, Hawaii. <i>Journal of Physical Oceanography</i> , <b>2009</b> , 39, 421-436	2.4	45
42	Glider surveillance of physics and biology in the southern California Current System. <i>Limnology and Oceanography</i> , <b>2008</b> , 53, 2151-2168	4.8	91
41	The Underway Conductivity-Temperature-Depth Instrument. <i>Journal of Atmospheric and Oceanic Technology</i> , <b>2007</b> , 24, 1910-1923	2	42
40	Inferences and Observations of Turbulent Dissipation and Mixing in the Upper Ocean at the Hawaiian Ridge. <i>Journal of Physical Oceanography</i> , <b>2007</b> , 37, 476-494	2.4	13

39	Scattering from the mixed layer base into the sound shadow. <i>Journal of the Acoustical Society of America</i> , <b>2006</b> , 120, 2580-2594	2.2	6
38	Two-dimensional ageostrophic secondary circulation at ocean fronts due to vertical mixing and large-scale deformation. <i>Journal of Geophysical Research</i> , <b>2006</b> , 111,		52
37	Comment on Regime shifts and red noise in the North Pacific— <i>Deep-Sea Research Part I: Oceanographic Research Papers</i> , <b>2006</b> , 53, 589-590	2.5	3
36	Horizontal variability in chlorophyll fluorescence and potential temperature. <i>Deep-Sea Research Part I: Oceanographic Research Papers</i> , <b>2006</b> , 53, 1460-1482	2.5	22
35	Spatially Broad Observations of Internal Waves in the Upper Ocean at the Hawaiian Ridge. <i>Journal of Physical Oceanography</i> , <b>2006</b> , 36, 1085-1103	2.4	46
34	Upper ocean heat and freshwater budgets in the eastern Pacific warm pool. <i>Journal of Geophysical Research</i> , <b>2005</b> , 110,		18
33	Ice-Draft Profiling from Bottom-Mounted ADCP Data. <i>Journal of Atmospheric and Oceanic Technology</i> , <b>2005</b> , 22, 1249-1266	2	16
32	Underwater Gliders for Ocean Research. <i>Marine Technology Society Journal</i> , <b>2004</b> , 38, 73-84	0.5	409
31	Propagation of sound through a spicy ocean, the SOFAR overture. <i>Journal of the Acoustical Society of America</i> , <b>2004</b> , 116, 1447-1462	2.2	16
30	Dense water formation on the northwestern shelf of the Okhotsk Sea: 1. Direct observations of brine rejection. <i>Journal of Geophysical Research</i> , <b>2004</b> , 109,		21
29	Dense water formation on the northwestern shelf of the Okhotsk Sea: 2. Quantifying the transports. <i>Journal of Geophysical Research</i> , <b>2004</b> , 109,		12
28	Simple models of steady deep maxima in chlorophyll and biomass. <i>Deep-Sea Research Part I: Oceanographic Research Papers</i> , <b>2004</b> , 51, 999-1015	2.5	50
27	Red noise and regime shifts. <i>Deep-Sea Research Part I: Oceanographic Research Papers</i> , <b>2003</b> , 50, 691-699	2.5	141
26	Direct observations of North Pacific ventilation: brine rejection in the Okhotsk Sea. <i>Science</i> , <b>2003</b> , 302, 1952-5	33.3	145
25	From tides to mixing along the Hawaiian ridge. <i>Science</i> , <b>2003</b> , 301, 355-7	33.3	270
24	Observing the Ocean with Autonomous and Lagrangian Platforms and Sensors: The Role of ALPS in Sustained Ocean Observing Systems. <i>Oceanography</i> , <b>2003</b> , 16, 31-36	2.3	38
23	Moored observations of upper-ocean response to the monsoons in the Arabian Sea during 1994–1995. <i>Deep-Sea Research Part II: Topical Studies in Oceanography</i> , <b>2002</b> , 49, 2195-2230	2.3	81
22	Mesoscale eddies, coastal upwelling, and the upper-ocean heat budget in the Arabian Sea. <i>Deep-Sea Research Part II: Topical Studies in Oceanography</i> , <b>2002</b> , 49, 2231-2264	2.3	73

21	On the horizontal density ratio in the upper ocean. <i>Dynamics of Atmospheres and Oceans</i> , <b>2002</b> , 36, 3-21	1.9	43
20	The Dynamics of Double Monsoon Onsets. <i>Journal of Climate</i> , <b>2001</b> , 14, 4130-4146	4.4	78
19	On the skewness of vorticity in the upper ocean. <i>Geophysical Research Letters</i> , <b>2001</b> , 28, 2045-2048	4.9	49
18	Thermohaline variability in the upper ocean. <i>Journal of Geophysical Research</i> , <b>2000</b> , 105, 16857-16883		96
17	Compensation of horizontal temperature and salinity gradients in the ocean mixed layer. <i>Science</i> , <b>1999</b> , 283, 526-9	33.3	163
16	Moored instruments weather Arabian Sea monsoons, yield data. <i>Eos</i> , <b>1997</b> , 78, 117	1.5	19
15	Direct velocity measurements in the Samoan Passage. <i>Journal of Geophysical Research</i> , <b>1997</b> , 102, 3293-3302		67
14	Intensive surveys of the Azores Front: 1. Tracers and dynamics. <i>Journal of Geophysical Research</i> , <b>1996</b> , 101, 923-939		73
13	Northward abyssal transport through the Samoan passage and adjacent regions. <i>Journal of Geophysical Research</i> , <b>1996</b> , 101, 14039-14055		109
12	Intensive surveys of the Azores Front: 2. Inferring the geostrophic and vertical velocity fields. <i>Journal of Geophysical Research</i> , <b>1996</b> , 101, 16291-16303		119
11	The Upper-Ocean Response to Surface Heating. <i>Journal of Physical Oceanography</i> , <b>1996</b> , 26, 466-480	2.4	3
10	Meteorological variability and air-sea fluxes at a closely spaced array of surface moorings. <i>Journal of Geophysical Research</i> , <b>1995</b> , 100, 4867		12
9	Bottom water variability in the Samoa Passage. <i>Journal of Marine Research</i> , <b>1994</b> , 52, 177-196	1.5	36
8	The heat budget in the North Atlantic subtropical frontal zone. <i>Journal of Geophysical Research</i> , <b>1993</b> , 98, 6883-6893		10
7	Observations of Superinertial and Near-Inertial Wind-driven Flow. <i>Journal of Physical Oceanography</i> , <b>1993</b> , 23, 2351-2359	2.4	16
6	Ocean frontal variability in the Frontal Air-Sea Interaction Experiment. <i>Journal of Geophysical Research</i> , <b>1991</b> , 96, 8569		40
5	Forced ocean response during the Frontal Air-Sea Interaction Experiment. <i>Journal of Geophysical Research</i> , <b>1991</b> , 96, 8611		33
4	Measuring Near-Surface Meteorology over the Ocean from an Array of Surface Moorings in the Subtropical Convergence Zone. <i>Journal of Atmospheric and Oceanic Technology</i> , <b>1990</b> , 7, 85-103	2	29



3	Measuring Upper Ocean Variability from an Array of Surface Moorings in the Subtropical Convergence Zone. <i>Journal of Atmospheric and Oceanic Technology</i> , <b>1990</b> , 7, 68-84	2	4
2	Mass and heat budgets on the northern California continental shelf. <i>Journal of Geophysical Research</i> , <b>1988</b> , 93, 14013		28
1	Frontogenesis in Mixed Layers. <i>Journal of Physical Oceanography</i> , <b>1988</b> , 18, 434-457	2.4	10