Laurence Padman

List of Publications by Year
in descending order

109 papers	8,466 citations	50276 46 h-index	48315 88 g-index
118 all docs	118 docs citations	118 times ranked	5791 citing authors

#	Article	IF	Citations
1	Thank You to Our 2021 Reviewers. Journal of Geophysical Research: Oceans, 2022, 127, .	2.6	0
2	A clustering-based approach to ocean modelâ€"data comparison around Antarctica. Ocean Science, 2021, 17, 131-145.	3.4	5
3	Thank You to Our 2020 Reviewers. Journal of Geophysical Research: Oceans, 2021, 126, e2021JC017288.	2.6	0
4	Buoyancyâ€Driven Flexure at the Front of Ross Ice Shelf, Antarctica, Observed With ICESatâ€2 Laser Altimetry. Geophysical Research Letters, 2021, 48, e2020GL091207.	4.0	1
5	Tidal Modulation of Buoyant Flow and Basal Melt Beneath Petermann Gletscher Ice Shelf, Greenland. Journal of Geophysical Research: Oceans, 2020, 125, e2020JC016427.	2.6	13
6	Tidally Forced Lee Waves Drive Turbulent Mixing Along the Arctic Ocean Margins. Geophysical Research Letters, 2020, 47, e2020GL088083.	4.0	32
7	Intensification of Nearâ€Surface Currents and Shear in the Eastern Arctic Ocean. Geophysical Research Letters, 2020, 47, e2020GL089469.	4.0	32
8	Interannual variations in meltwater input to the Southern Ocean from Antarctic ice shelves. Nature Geoscience, 2020, 13, 616-620.	12.9	169
9	Oceanic Routing of Wind-Sourced Energy Along the Arctic Continental Shelves. Frontiers in Marine Science, 2020, 7, .	2.5	11
10	Annual cycle in flow of Ross Ice Shelf, Antarctica: contribution of variable basal melting. Journal of Glaciology, 2020, 66, 861-875.	2.2	7
11	Arctic tidal current atlas. Scientific Data, 2020, 7, 275.	5.3	14
12	Thank You to Our 2019 Reviewers. Journal of Geophysical Research: Oceans, 2020, 125, e2020JC016312.	2.6	0
13	Multidecadal Basal Melt Rates and Structure of the Ross Ice Shelf, Antarctica, Using Airborne Ice Penetrating Radar. Journal of Geophysical Research F: Earth Surface, 2020, 125, e2019JF005241.	2.8	19
14	Tidal Pressurization of the Ocean Cavity Near an Antarctic Ice Shelf Grounding Line. Journal of Geophysical Research: Oceans, 2020, 125, e2019JC015562.	2.6	12
15	Weakening of Cold Halocline Layer Exposes Sea Ice to Oceanic Heat in the Eastern Arctic Ocean. Journal of Climate, 2020, 33, 8107-8123.	3.2	82
16	Evolution of the Seasonal Surface Mixed Layer of the Ross Sea, Antarctica, Observed With Autonomous Profiling Floats. Journal of Geophysical Research: Oceans, 2019, 124, 4934-4953.	2.6	29
17	Modeling Ocean Eddies on Antarctica's Cold Water Continental Shelves and Their Effects on Ice Shelf Basal Melting. Journal of Geophysical Research: Oceans, 2019, 124, 5067-5084.	2.6	14
18	Summer surface melt thins Petermann Gletscher Ice Shelf by enhancing channelized basal melt. Journal of Glaciology, 2019, 65, 662-674.	2.2	33

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19	Ross Ice Shelf response to climate driven by the tectonic imprint on seafloor bathymetry. Nature Geoscience, 2019, 12, 441-449.	12.9	88
20	Eastern Arctic Ocean Diapycnal Heat Fluxes through Large Double-Diffusive Steps. Journal of Physical Oceanography, 2019, 49, 227-246.	1.7	22
21	Variable Basal Melt Rates of Antarctic Peninsula Ice Shelves, 1994â€“2016. Geophysical Research Letters, 2018, 45, 4086-4095.	4.0	60
22	Ocean Tide Influences on the Antarctic and Greenland Ice Sheets. Reviews of Geophysics, 2018, 56, 142-184.	23.0	119
23	Response of Pacific-sector Antarctic ice shelves to the El NiÃ±o/Southern Oscillation. Nature Geoscience, 2018, 11, 121-126.	12.9	117
24	Structure and dynamics of mesoscale eddies over the Laptev Sea continental slope in the Arctic Ocean. Ocean Science, 2018, 14, 1329-1347.	3.4	22
25	Wave inhibition by sea ice enables trans-Atlantic ice rafting of debris during Heinrich events. Earth and Planetary Science Letters, 2018, 495, 157-163.	4.4	8
26	Tidal influences on a future evolution of the Filchnerâ€“Ronne Ice Shelf cavity in the Weddell Sea, Antarctica. Cryosphere, 2018, 12, 453-476.	3.9	33
27	Ocean forced variability of Totten Glacier mass loss. Geological Society Special Publication, 2018, 461, 175-186.	1.3	36
28	Flow splitting in numerical simulations of oceanic dense-water outflows. Ocean Modelling, 2017, 113, 66-84.	2.4	5
29	Influence of Sea State and Tidal Height on Wave Power Absorption. IEEE Journal of Oceanic Engineering, 2017, 42, 566-573.	3.8	7
30	Seasonal control of Petermann Gletscher ice-shelf melt by the ocean's response to sea-ice cover in Nares Strait. Journal of Glaciology, 2017, 63, 324-330.	2.2	26
31	The Ice Shelf of Petermann Gletscher, North Greenland, and Its Connection to the Arctic and Atlantic Oceans. , 2016, 29, 84-95.		32
32	Constructing improved decadal records of Antarctic ice shelf height change from multiple satellite radar altimeters. Remote Sensing of Environment, 2016, 177, 192-205.	11.0	32
33	Toward Quantifying the Increasing Role of Oceanic Heat in Sea Ice Loss in the New Arctic. Bulletin of the American Meteorological Society, 2015, 96, 2079-2105.	3.3	217
34	Modeled ocean circulation in <scp>N</scp>ares <scp>S</scp>trait and its dependence on landfastâ€ice cover. Journal of Geophysical Research: Oceans, 2015, 120, 7934-7959.	2.6	12
35	Role of tides on the formation of the <scp>A</scp>ntarctic <scp>S</scp>lope <scp>F</scp>ront at the <scp>W</scp>eddellâ€<scp>S</scp>cotia Confluence. Journal of Geophysical Research: Oceans, 2015, 120, 3658-3680.	2.6	41
36	Volume loss from Antarctic ice shelves is accelerating. Science, 2015, 348, 327-331.	12.6	575

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37	Accuracy assessment of global barotropic ocean tide models. Reviews of Geophysics, 2014, 52, 243-282.	23.0	338
38	Topographic vorticity waves forced by Antarctic dense shelf water outflows. Geophysical Research Letters, 2014, 41, 1247-1254.	4.0	13
39	Ocean variability contributing to basal melt rate near the ice front of Ross Ice Shelf, Antarctica. Journal of Geophysical Research: Oceans, 2014, 119, 4214-4233.	2.6	57
40	Basal mass budget of Ross and Filchnerâ€Ronne ice shelves, Antarctica, derived from Lagrangian analysis of ICESat altimetry. Journal of Geophysical Research F: Earth Surface, 2014, 119, 2361-2380.	2.8	86
41	Interannual changes of the floating ice shelf of Petermann Gletscher, North Greenland, from 2000 to 2012. Journal of Glaciology, 2014, 60, 489-499.	2.2	68
42	Understanding Arctic Ocean Processes Under Changing Ice Cover. Eos, 2014, 95, 316-317.	0.1	0
43	The structural and dynamic responses of Stange Ice Shelf to recent environmental change. Antarctic Science, 2014, 26, 646-660.	0.9	6
44	Winter Convection Transports Atlantic Water Heat to the Surface Layer in the Eastern Arctic Ocean*. Journal of Physical Oceanography, 2013, 43, 2142-2155.	1.7	51
45	Extracting tidal variability of sea ice concentration from AMSR-E passive microwave single-swath data: a case study of the Ross Sea. Geophysical Research Letters, 2013, 40, 547-552.	4.0	13
46	Oceanic controls on the mass balance of Wilkins Ice Shelf, Antarctica. Journal of Geophysical Research, 2012, 117, .	3.3	62
47	Impact of tideâ€topography interactions on basal melting of Larsen C Ice Shelf, Antarctica. Journal of Geophysical Research, 2012, 117, .	3.3	61
48	Mooring-Based Observations of Double-Diffusive Staircases over the Laptev Sea Slope*. Journal of Physical Oceanography, 2012, 42, 95-109.	1.7	62
49	Antarctic ice-sheet loss driven by basal melting of ice shelves. Nature, 2012, 484, 502-505.	27.8	1,051
50	Thirty years of elevation change on Antarctic Peninsula ice shelves from multimission satellite radar altimetry. Journal of Geophysical Research, 2012, 117, .	3.3	51
51	Ocean tides in the Weddell Sea: New observations on the Filchner-Ronne and Larsen C ice shelves and model validation. Journal of Geophysical Research, 2011, 116, .	3.3	29
52	Thermohaline variability and Antarctic bottom water formation at the Ross Sea shelf break. Deep-Sea Research Part I: Oceanographic Research Papers, 2011, 58, 1002-1018.	1.4	66
53	Analysis of ice plains of the Filchnerâ€"Ronne Ice Shelf, Antarctica, using ICESat laser altimetry. Journal of Glaciology, 2011, 57, 965-975.	2.2	46
54	Correction to â€œOcean tides in the Weddell Sea: New observations on the Filchner-Ronne and Larsen C ice shelves and model validationâ€. Journal of Geophysical Research, 2011, 116, .	3.3	4

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55	Ice-shelf collapse from subsurface warming as a trigger for Heinrich events. Proceedings of the National Academy of Sciences of the United States of America, 2011, 108, 13415-13419.	7.1	278
56	Getting around Antarctica: new high-resolution mappings of the grounded and freely-floating boundaries of the Antarctic ice sheet created for the International Polar Year. Cryosphere, 2011, 5, 569-588.	3.9	187
57	Mapping the grounding zone of the Ross Ice Shelf, Antarctica, using ICESat laser altimetry. Annals of Glaciology, 2010, 51, 71-79.	1.4	100
58	Persistent iceberg groundings in the western Weddell Sea, Antarctica. Remote Sensing of Environment, 2010, 114, 385-391.	11.0	17
59	Seals map bathymetry of the Antarctic continental shelf. Geophysical Research Letters, 2010, 37, .	4.0	40
60	Mapping the grounding zone of the Amery Ice Shelf, East Antarctica using InSAR, MODIS and ICESat. Antarctic Science, 2009, 21, 515-532.	0.9	124
61	A dense water outflow from the Ross Sea, Antarctica: Mixing and the contribution of tides. Journal of Marine Systems, 2009, 77, 369-387.	2.1	61
62	Tides of the northwestern Ross Sea and their impact on dense outflows of Antarctic Bottom Water. Deep-Sea Research Part II: Topical Studies in Oceanography, 2009, 56, 818-834.	1.4	93
63	Southern Ocean shelf slope exchange. Deep-Sea Research Part II: Topical Studies in Oceanography, 2009, 56, 775-777.	1.4	17
64	Impacts of bottom corrugations on a dense Antarctic outflow: NW Ross Sea. Geophysical Research Letters, 2009, 36, .	4.0	23
65	A 4â€decade record of elevation change of the Amery Ice Shelf, East Antarctica. Journal of Geophysical Research, 2009, 114, .	3.3	25
66	Improving Antarctic tide models by assimilation of ICESat laser altimetry over ice shelves. Geophysical Research Letters, 2008, 35, .	4.0	84
67	An Active Subglacial Water System in West Antarctica Mapped from Space. Science, 2007, 315, 1544-1548.	12.6	406
68	Ice shelf grounding zone structure from ICESat laser altimetry. Geophysical Research Letters, 2006, 33, .	4.0	139
69	Internal tide generation along the South Scotia Ridge. Deep-Sea Research Part II: Topical Studies in Oceanography, 2006, 53, 157-171.	1.4	23
70	Assimilation of Ship-Mounted ADCP Data for Barotropic Tides: Application to the Ross Sea. Journal of Atmospheric and Oceanic Technology, 2005, 22, 721-734.	1.3	29
71	Influence of tides on sea ice in the Weddell Sea: Investigations with a high-resolution dynamic-thermodynamic sea ice model. Journal of Geophysical Research, 2005, 110, .	3.3	30
72	Tides on the Ross Ice Shelf observed with ICESat. Geophysical Research Letters, 2005, 32, n/a-n/a.	4.0	23

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73	Accuracy assessment of ocean tide models around Antarctica. Geophysical Research Letters, 2005, 32, .	4.0	72
74	A barotropic inverse tidal model for the Arctic Ocean. Geophysical Research Letters, 2004, 31, .	4.0	246
75	Ice shelf water overflow and bottom water formation in the southern Weddell Sea. Journal of Geophysical Research, 2004, 109, .	3.3	196
76	Mixing in the pycnocline over the western Antarctic Peninsula shelf during Southern Ocean GLOBEC. Deep-Sea Research Part II: Topical Studies in Oceanography, 2004, 51, 1965-1979.	1.4	50
77	Water mass modification over the continental shelf north of Ronne Ice Shelf, Antarctica. Journal of Geophysical Research, 2003, 108, .	3.3	53
78	Melting and freezing beneath Filchner-Ronne Ice Shelf, Antarctica. Geophysical Research Letters, 2003, 30, .	4.0	123
79	Tidally Controlled Stick-Slip Discharge of a West Antarctic Ice. Science, 2003, 301, 1087-1089.	12.6	260
80	Tides of the Ross Sea and Ross Ice Shelf cavity. Antarctic Science, 2003, 15, 31-40.	0.9	87
81	Tidally driven stickâ€“slip motion in the mouth of Whillans Ice Stream, Antarctica. Annals of Glaciology, 2003, 36, 263-272.	1.4	84
82	Ice-shelf elevation changes due to atmospheric pressure variations. Journal of Glaciology, 2003, 49, 521-526.	2.2	57
83	A new tide model for the Antarctic ice shelves and seas. Annals of Glaciology, 2002, 34, 247-254.	1.4	331
84	RADARSAT interferometry for Antarctic grounding-zone mapping. Annals of Glaciology, 2002, 34, 269-276.	1.4	31
85	Tides on Filchner-Ronne Ice Shelf from ERS radar altimetry. Geophysical Research Letters, 2002, 29, 60-1.	4.0	30
86	Upper ocean diapycnal mixing in the northwestern Weddell Sea. Deep-Sea Research Part II: Topical Studies in Oceanography, 2002, 49, 4843-4861.	1.4	24
87	Maud Rise revisited. Journal of Geophysical Research, 2001, 106, 2423-2440.	3.3	56
88	A Correction to the Baroclinic Pressure Gradient Term in the Princeton Ocean Model. Journal of Atmospheric and Oceanic Technology, 2001, 18, 1068-1075.	1.3	19
89	Observation of ocean tides below the Filchner and Ronne Ice Shelves, Antarctica, using synthetic aperture radar interferometry: Comparison with tide model predictions. Journal of Geophysical Research, 2000, 105, 19615-19630.	3.3	48
90	High-frequency ice motion and divergence in the Weddell Sea. Journal of Geophysical Research, 2000, 105, 3379-3400.	3.3	46

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91	Turbulent mixing in Barrow Strait. Continental Shelf Research, 1999, 19, 205-245.	1.8	21
92	Internal waves and tides in the western Weddell Sea: Observations from Ice Station Weddell. Journal of Geophysical Research, 1997, 102, 1073-1089.	3.3	31
93	The Antarctic Zone Flux Experiment. Bulletin of the American Meteorological Society, 1996, 77, 1221-1232.	3.3	73
94	Small-scale physical processes in the Arctic Ocean. Coastal and Estuarine Studies, 1995, , 97-129.	0.4	30
95	Fine structure, microstructure, and vertical mixing processes in the upper ocean in the western Weddell Sea. Journal of Geophysical Research, 1995, 100, 18517.	3.3	59
96	Momentum fluxes through sheared oceanic thermohaline steps. Journal of Geophysical Research, 1994, 99, 22491.	3.3	28
97	Some statistical and dynamical properties of turbulence in the oceanic pycnocline. Journal of Geophysical Research, 1993, 98, 22665-22679.	3.3	35
98	The Application of Internal-Wave Dissipation Models to a Region of Strong Mixing. Journal of Physical Oceanography, 1993, 23, 269-286.	1.7	94
99	Diurnal tides near the Yermak Plateau. Journal of Geophysical Research, 1992, 97, 12639-12652.	3.3	90
100	Summer upwelling on the Sydney inner continental shelf: The relative roles of local wind forcing and mesoscale eddy encroachment. Continental Shelf Research, 1991, 11, 321-345.	1.8	34
101	Turbulent mixing near the Yermak Plateau during the Coordinated Eastern Arctic Experiment. Journal of Geophysical Research, 1991, 96, 4769-4782.	3.3	106
102	Near-surface mixing in a freshwater lake. Marine and Freshwater Research, 1991, 42, 655.	1.3	1
103	Hydrography and microstructure of an Arctic cyclonic eddy. Journal of Geophysical Research, 1990, 95, 9411-9420.	3.3	40
104	Thermal microstructure and internal waves in the Canada Basin diffusive staircase. Deep-sea Research Part A, Oceanographic Research Papers, 1989, 36, 531-542.	1.5	53
105	On the Horizontal Extent of the Canada Basin Thermohaline Steps. Journal of Physical Oceanography, 1988, 18, 1458-1462.	1.7	40
106	Vertical heat fluxes through the Beaufort Sea thermohaline staircase. Journal of Geophysical Research, 1987, 92, 10799-10806.	3.3	127
107	Richardson Number Statistics in the Seasonal Thermocline. Journal of Physical Oceanography, 1985, 15, 844-854.	1.7	18
108	Semidiurnal internal tides in eastern Bass Strait. Marine and Freshwater Research, 1983, 34, 159.	1.3	8

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109	Tides in the Weddell Sea. Antarctic Research Series, 0, , 341-369.	0.2	69