

# Andrew F Thompson

## List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/7335052/publications.pdf>

Version: 2024-02-01

90  
papers

4,434  
citations

94433

37  
h-index

114465

63  
g-index

93  
all docs

93  
docs citations

93  
times ranked

4052  
citing authors

#	ARTICLE	IF	CITATIONS
1	Multidecadal warming of Antarctic waters. <i>Science</i> , 2014, 346, 1227-1231.	12.6	346
2	Antarctic sea ice control on ocean circulation in present and glacial climates. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2014, 111, 8753-8758.	7.1	295
3	Ocean submesoscales as a key component of the global heat budget. <i>Nature Communications</i> , 2018, 9, 775.	12.8	255
4	The Antarctic Slope Current in a Changing Climate. <i>Reviews of Geophysics</i> , 2018, 56, 741-770.	23.0	180
5	Eddy-mediated transport of warm Circumpolar Deep Water across the Antarctic Shelf Break. <i>Geophysical Research Letters</i> , 2015, 42, 432-440.	4.0	168
6	Open-Ocean Submesoscale Motions: A Full Seasonal Cycle of Mixed Layer Instabilities from Gliders. <i>Journal of Physical Oceanography</i> , 2016, 46, 1285-1307.	1.7	155
7	Jets and Topography: Jet Transitions and the Impact on Transport in the Antarctic Circumpolar Current. <i>Journal of Physical Oceanography</i> , 2012, 42, 956-972.	1.7	129
8	Marine ice-sheet profiles and stability under Coulomb basal conditions. <i>Journal of Glaciology</i> , 2015, 61, 205-215.	2.2	117
9	Surface Circulation at the Tip of the Antarctic Peninsula from Drifters. <i>Journal of Physical Oceanography</i> , 2009, 39, 3-26.	1.7	110
10	Seasonality of submesoscale flows in the ocean surface boundary layer. <i>Geophysical Research Letters</i> , 2016, 43, 2118-2126.	4.0	104
11	Equilibration of the Antarctic Circumpolar Current by Standing Meanders. <i>Journal of Physical Oceanography</i> , 2014, 44, 1811-1828.	1.7	103
12	Eddy transport as a key component of the Antarctic overturning circulation. <i>Nature Geoscience</i> , 2014, 7, 879-884.	12.9	93
13	Two-Layer Baroclinic Eddy Heat Fluxes: Zonal Flows and Energy Balance. <i>Journals of the Atmospheric Sciences</i> , 2007, 64, 3214-3231.	1.7	88
14	Dynamic Topography and Sea Level Anomalies of the Southern Ocean: Variability and Teleconnections. <i>Journal of Geophysical Research: Oceans</i> , 2018, 123, 613-630.	2.6	85
15	Scaling Baroclinic Eddy Fluxes: Vortices and Energy Balance. <i>Journal of Physical Oceanography</i> , 2006, 36, 720-738.	1.7	84
16	Enhanced upward heat transport at deep submesoscale ocean fronts. <i>Nature Geoscience</i> , 2020, 13, 50-55.	12.9	84
17	Submesoscale Sea Ice-Ocean Interactions in Marginal Ice Zones. <i>Journal of Geophysical Research: Oceans</i> , 2017, 122, 9455-9475.	2.6	81
18	Jet Formation and Evolution in Baroclinic Turbulence with Simple Topography. <i>Journal of Physical Oceanography</i> , 2010, 40, 257-278.	1.7	77

#	ARTICLE	IF	CITATIONS
19	Connecting Antarctic Cross-Slope Exchange with Southern Ocean Overturning. <i>Journal of Physical Oceanography</i> , 2013, 43, 1453-1471.	1.7	69
20	Enhanced eddy activity in the Beaufort Gyre in response to sea ice loss. <i>Nature Communications</i> , 2020, 11, 761.	12.8	65
21	Frontal structure and transport in the northwestern Weddell Sea. <i>Deep-Sea Research Part I: Oceanographic Research Papers</i> , 2008, 55, 1229-1251.	1.4	64
22	The glacial mid-depth radiocarbon bulge and its implications for the overturning circulation. <i>Paleoceanography</i> , 2015, 30, 1021-1039.	3.0	61
23	Spatial and Temporal Patterns of Small-Scale Mixing in Drake Passage. <i>Journal of Physical Oceanography</i> , 2007, 37, 572-592.	1.7	59
24	An Idealized Model of Weddell Gyre Export Variability. <i>Journal of Physical Oceanography</i> , 2014, 44, 1671-1688.	1.7	52
25	The atmospheric ocean: eddies and jets in the Antarctic Circumpolar Current. <i>Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences</i> , 2008, 366, 4529-4541.	3.4	50
26	ACC Meanders, Energy Transfer, and Mixed Barotropic-Baroclinic Instability. <i>Journal of Physical Oceanography</i> , 2017, 47, 1291-1305.	1.7	48
27	Southern Ocean Seasonal Restratification Delayed by Submesoscale Wind-Driven Front Interactions. <i>Journal of Physical Oceanography</i> , 2019, 49, 1035-1053.	1.7	48
28	Abrupt Transitions in Submesoscale Structure in Southern Drake Passage: Glider Observations and Model Results. <i>Journal of Physical Oceanography</i> , 2018, 48, 2011-2027.	1.7	47
29	Estimating Oceanic Primary Production Using Vertical Irradiance and Chlorophyll Profiles from Ocean Gliders in the North Atlantic. <i>Environmental Science &amp; Technology</i> , 2015, 49, 11612-11621.	10.0	46
30	Ocean processes at the Antarctic continental slope. <i>Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences</i> , 2014, 372, 20130047.	3.4	45
31	A Theory of the Wind-Driven Beaufort Gyre Variability. <i>Journal of Physical Oceanography</i> , 2016, 46, 3263-3278.	1.7	44
32	A Multibasin Residual-Mean Model for the Global Overturning Circulation. <i>Journal of Physical Oceanography</i> , 2016, 46, 2583-2604.	1.7	42
33	Eddy Generation and Jet Formation via Dense Water Outflows across the Antarctic Continental Slope. <i>Journal of Physical Oceanography</i> , 2016, 46, 3729-3750.	1.7	42
34	Contribution of topographically generated submesoscale turbulence to Southern Ocean overturning. <i>Nature Geoscience</i> , 2017, 10, 840-845.	12.9	42
35	Rapid Southern Ocean front transitions in an eddy-resolving ocean GCM. <i>Geophysical Research Letters</i> , 2010, 37, .	4.0	40
36	Circulation and meltwater distribution in the Bellingshausen Sea: From shelf break to coast. <i>Geophysical Research Letters</i> , 2016, 43, 6402-6409.	4.0	40

#	ARTICLE	IF	CITATIONS
37	Phytoplankton spring bloom initiation: The impact of atmospheric forcing and light in the temperate North Atlantic Ocean. <i>Progress in Oceanography</i> , 2019, 178, 102202.	3.2	40
38	Sensitivity of the ocean's deep overturning circulation to easterly Antarctic winds. <i>Geophysical Research Letters</i> , 2012, 39, .	4.0	38
39	Global Estimates of the Energy Transfer From the Wind to the Ocean, With Emphasis on Near-Inertial Oscillations. <i>Journal of Geophysical Research: Oceans</i> , 2019, 124, 5723-5746.	2.6	36
40	High-Frequency Submesoscale Motions Enhance the Upward Vertical Heat Transport in the Global Ocean. <i>Journal of Geophysical Research: Oceans</i> , 2020, 125, e2020JC016544.	2.6	35
41	Low frequency variability of Southern Ocean jets. <i>Journal of Geophysical Research</i> , 2011, 116, .	3.3	32
42	The vertical structure of upper ocean variability at the Porcupine Abyssal Plain during 2012–2013. <i>Journal of Geophysical Research: Oceans</i> , 2016, 121, 3075-3089.	2.6	32
43	The Seasonality of Physically Driven Export at Submesoscales in the Northeast Atlantic Ocean. <i>Global Biogeochemical Cycles</i> , 2018, 32, 1144-1162.	4.9	32
44	Constraining Southern Ocean Air-Sea-Ice Fluxes Through Enhanced Observations. <i>Frontiers in Marine Science</i> , 2019, 6, .	2.5	31
45	A pole-to-equator ocean overturning circulation on Enceladus. <i>Nature Geoscience</i> , 2021, 14, 185-189.	12.9	29
46	Eddy Memory Mode of Multidecadal Variability in Residual-Mean Ocean Circulations with Application to the Beaufort Gyre. <i>Journal of Physical Oceanography</i> , 2017, 47, 855-866.	1.7	28
47	Genesis of the Antarctic Slope Current in West Antarctica. <i>Geophysical Research Letters</i> , 2020, 47, e2020GL087802.	4.0	28
48	How Does Antarctic Bottom Water Cross the Southern Ocean?. <i>Geophysical Research Letters</i> , 2022, 49, .	4.0	28
49	Variability of the Antarctic Slope Current System in the Northwestern Weddell Sea. <i>Journal of Physical Oceanography</i> , 2017, 47, 2977-2997.	1.7	27
50	The influence of meridional ice transport on Europa's ocean stratification and heat content. <i>Geophysical Research Letters</i> , 2017, 44, 5969-5977.	4.0	26
51	The Formation of Nonzonal Jets over Sloped Topography. <i>Journal of Physical Oceanography</i> , 2012, 42, 1635-1651.	1.7	23
52	Weddell Sea Export Pathways from Surface Drifters. <i>Journal of Physical Oceanography</i> , 2015, 45, 1068-1085.	1.7	23
53	Surface exchange between the Weddell and Scotia Seas. <i>Geophysical Research Letters</i> , 2013, 40, 5920-5925.	4.0	22
54	An advective mechanism for deep chlorophyll maxima formation in southern Drake Passage. <i>Geophysical Research Letters</i> , 2016, 43, 10,846.	4.0	22

#	ARTICLE	IF	CITATIONS
55	Testing Munk's hypothesis for submesoscale eddy generation using observations in the North Atlantic. <i>Journal of Geophysical Research: Oceans</i> , 2017, 122, 6725-6745.	2.6	22
56	The Vertical Structure of Open-Ocean Submesoscale Variability during a Full Seasonal Cycle. <i>Journal of Physical Oceanography</i> , 2020, 50, 145-160.	1.7	22
57	Submesoscale Fronts in the Antarctic Marginal Ice Zone and Their Response to Wind Forcing. <i>Geophysical Research Letters</i> , 2020, 47, e2019GL086649.	4.0	22
58	On the Importance of Surface Forcing in Conceptual Models of the Deep Ocean. <i>Journal of Physical Oceanography</i> , 2014, 44, 891-899.	1.7	21
59	Reassessing the Role of the Indo-Pacific in the Ocean's Global Overturning Circulation. <i>Geophysical Research Letters</i> , 2018, 45, 12,422.	4.0	21
60	Lagrangian pathways of upwelling in the Southern Ocean. <i>Journal of Geophysical Research: Oceans</i> , 2016, 121, 6295-6309.	2.6	20
61	Solidification and compositional convection of a ternary alloy. <i>Journal of Fluid Mechanics</i> , 2003, 497, 167-199.	3.4	19
62	Stirring of Sea-Ice Meltwater Enhances Submesoscale Fronts in the Southern Ocean. <i>Journal of Geophysical Research: Oceans</i> , 2021, 126, e2020JC016814.	2.6	19
63	Transient Overturning Compensation between Atlantic and Indo-Pacific Basins. <i>Journal of Physical Oceanography</i> , 2020, 50, 2151-2172.	1.7	18
64	Ocean Convective Available Potential Energy. Part II: Energetics of Thermobaric Convection and Thermobaric Cabbeling. <i>Journal of Physical Oceanography</i> , 2016, 46, 1097-1115.	1.7	17
65	Ocean Convective Available Potential Energy. Part I: Concept and Calculation. <i>Journal of Physical Oceanography</i> , 2016, 46, 1081-1096.	1.7	16
66	Atlantic Ocean Heat Transport Enabled by Indo-Pacific Heat Uptake and Mixing. <i>Geophysical Research Letters</i> , 2019, 46, 13939-13949.	4.0	16
67	Observational Evidence of Ventilation Hotspots in the Southern Ocean. <i>Journal of Geophysical Research: Oceans</i> , 2021, 126, e2021JC017178.	2.6	15
68	The Evolution and Arrest of a Turbulent Stratified Oceanic Bottom Boundary Layer over a Slope: Downslope Regime. <i>Journal of Physical Oceanography</i> , 2019, 49, 469-487.	1.7	14
69	Exploration of Icy Ocean Worlds Using Geophysical Approaches. <i>Planetary Science Journal</i> , 2021, 2, 150.	3.6	14
70	Heavy footprints of upper-ocean eddies on weakened Arctic sea ice in the marginal ice zones. <i>Nature Communications</i> , 2022, 13, 2147.	12.8	14
71	Centennial Changes in the Indonesian Throughflow Connected to the Atlantic Meridional Overturning Circulation: The Ocean's Transient Conveyor Belt. <i>Geophysical Research Letters</i> , 2020, 47, e2020GL090615.	4.0	13
72	Indo-Pacific Warming Induced by a Weakening of the Atlantic Meridional Overturning Circulation. <i>Journal of Climate</i> , 2022, 35, 815-832.	3.2	12

#	ARTICLE	IF	CITATIONS
73	Remote Sensing of Chlorophyll Fluorescence in the Ocean Using Imaging Spectrometry: Toward a Vertical Profile of Fluorescence. <i>Geophysical Research Letters</i> , 2019, 46, 1571-1579.	4.0	11
74	A Southern Ocean Mechanism for the Interhemispheric Coupling and Phasing of the Bipolar Seesaw. <i>Journal of Climate</i> , 2019, 32, 4347-4365.	3.2	11
75	The Antarctic Coastal Current in the Bellingshausen Sea. <i>Cryosphere</i> , 2021, 15, 4179-4199.	3.9	10
76	Altimetry-Based Diagnosis of Deep-Reaching Sub-Mesoscale Ocean Fronts. <i>Fluids</i> , 2020, 5, 145.	1.7	9
77	The Shelf Circulation of the Bellingshausen Sea. <i>Journal of Geophysical Research: Oceans</i> , 2021, 126, e2020JC016871.	2.6	9
78	Enhanced Ventilation in Energetic Regions of the Antarctic Circumpolar Current. <i>Geophysical Research Letters</i> , 2022, 49, .	4.0	9
79	Bathymetric Control of Subpolar Gyres and the Overturning Circulation in the Southern Ocean. <i>Journal of Physical Oceanography</i> , 2022, 52, 205-223.	1.7	8
80	Bottom Boundary Potential Vorticity Injection from an Oscillating Flow: A PV Pump. <i>Journal of Physical Oceanography</i> , 2016, 46, 3509-3526.	1.7	7
81	The Role of the Southern Ocean in Abrupt Transitions and Hysteresis in Glacial Ocean Circulation. <i>Paleoceanography and Paleoclimatology</i> , 2019, 34, 490-510.	2.9	7
82	The Evolution and Arrest of a Turbulent Stratified Oceanic Bottom Boundary Layer over a Slope: Upslope Regime and PV Dynamics. <i>Journal of Physical Oceanography</i> , 2021, 51, 1077-1089.	1.7	7
83	Resolvent analysis of stratification effects on wall-bounded shear flows. <i>Physical Review Fluids</i> , 2021, 6, .	2.5	7
84	The Daily-Resolved Southern Ocean Mixed Layer: Regional Contrasts Assessed Using Glider Observations. <i>Journal of Geophysical Research: Oceans</i> , 2022, 127, .	2.6	7
85	Ice-Shelf Meltwater Overturning in the Bellingshausen Sea. <i>Journal of Geophysical Research: Oceans</i> , 2021, 126, e2020JC016957.	2.6	6
86	Mixing in the Southern Ocean. , 2022, , 301-327.		6
87	Separating Energetic Internal Gravity Waves and Small-Scale Frontal Dynamics. <i>Geophysical Research Letters</i> , 2022, 49, .	4.0	6
88	Ocean circulation. <i>Geophysical Monograph Series</i> , 2009, , 99-118.	0.1	4
89	A hemispheric asymmetry in poleward ocean heat transport across climates: Implications for overturning and polar warming. <i>Earth and Planetary Science Letters</i> , 2021, 568, 117033.	4.4	3
90	The impact of high-frequency current variability on dispersion off the eastern Antarctic Peninsula. <i>Journal of Geophysical Research</i> , 2011, 116, .	3.3	2