

# David P Stevens

## List of Publications by Year in descending order

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96  
papers

4,401  
citations

87888

38  
h-index

114465

63  
g-index

119  
all docs

119  
docs citations

119  
times ranked

4454  
citing authors

#	ARTICLE	IF	CITATIONS
1	North Atlantic Oscillation response to the Madden-Julian Oscillation in a coupled climate model. <i>Weather</i> , 2022, 77, 201-205.	0.7	5
2	Seasonal extrema of sea surface temperature in CMIP6 models. <i>Ocean Science</i> , 2022, 18, 839-855.	3.4	5
3	The Role of Anthropogenic Aerosol Forcing in the 1850-1985 Strengthening of the AMOC in CMIP6 Historical Simulations. <i>Journal of Climate</i> , 2022, 35, 3243-3263.	3.2	11
4	FORTE 2.0: a fast, parallel and flexible coupled climate model. <i>Geoscientific Model Development</i> , 2021, 14, 275-293.	3.6	3
5	Winter seal-based observations reveal glacial meltwater surfacing in the southeastern Amundsen Sea. <i>Communications Earth &amp; Environment</i> , 2021, 2, .	6.8	14
6	Marine iodine emissions in a changing world. <i>Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences</i> , 2021, 477, 20200824.	2.1	41
7	Oxidation of iodide to iodate by cultures of marine ammonia-oxidising bacteria. <i>Marine Chemistry</i> , 2021, 234, 104000.	2.3	10
8	A Global Model for Iodine Speciation in the Upper Ocean. <i>Global Biogeochemical Cycles</i> , 2020, 34, e2019GB006467.	4.9	16
9	Surface Inorganic Iodine Speciation in the Indian and Southern Oceans From 12°N to 70°S. <i>Frontiers in Marine Science</i> , 2020, 7, .	2.5	8
10	Climate Response to Increasing Antarctic Iceberg and Ice Shelf Melt. <i>Journal of Climate</i> , 2020, 33, 8917-8938.	3.2	16
11	Interactions between Increasing CO2 and Antarctic Melt Rates. <i>Journal of Climate</i> , 2020, 33, 8939-8956.	3.2	1
12	Topographic Control of Southern Ocean Gyres and the Antarctic Circumpolar Current: A Barotropic Perspective. <i>Journal of Physical Oceanography</i> , 2019, 49, 3221-3244.	1.7	15
13	The Impact of Overturning and Horizontal Circulation in Pine Island Trough on Ice Shelf Melt in the Eastern Amundsen Sea. <i>Journal of Physical Oceanography</i> , 2019, 49, 63-83.	1.7	28
14	Decadal prediction of the North Atlantic subpolar gyre in the HiGEM high-resolution climate model. <i>Climate Dynamics</i> , 2018, 50, 921-937.	3.8	30
15	Interconnectivity Between Volume Transports Through Arctic Straits. <i>Journal of Geophysical Research: Oceans</i> , 2018, 123, 8714-8729.	2.6	10
16	Variation in the Distribution and Properties of Circumpolar Deep Water in the Eastern Amundsen Sea, on Seasonal Timescales, Using Seal-Borne Tags. <i>Geophysical Research Letters</i> , 2018, 45, 4982-4990.	4.0	33
17	Decadal predictions with the HiGEM high resolution global coupled climate model: description and basic evaluation. <i>Climate Dynamics</i> , 2017, 48, 297-311.	3.8	16
18	Mechanisms driving variability in the ocean forcing of Pine Island Glacier. <i>Nature Communications</i> , 2017, 8, 14507.	12.8	78

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19	Between the Devil and the Deep Blue Sea: The Role of the Amundsen Sea Continental Shelf in Exchanges Between Ocean and Ice Shelves. , 2016, 29, 118-129.		36
20	Importance of ocean salinity for climate and habitability. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, 4278-4283.	7.1	47
21	The influence of diabatic heating in the South Pacific Convergence Zone on Rossby wave propagation and the mean flow. Quarterly Journal of the Royal Meteorological Society, 2016, 142, 901-910.	2.7	10
22	Why the South Pacific Convergence Zone is diagonal. Climate Dynamics, 2016, 46, 1683-1698.	3.8	34
23	A dynamical framework for the origin of the diagonal South Pacific and South Atlantic Convergence Zones. Quarterly Journal of the Royal Meteorological Society, 2015, 141, 1997-2010.	2.7	60
24	Increasing vertical mixing to reduce Southern Ocean deep convection in NEMO3.4. Geoscientific Model Development, 2015, 8, 3119-3130.	3.6	26
25	Propagation of the Madden-Julian Oscillation and scale interaction with the diurnal cycle in a high-resolution GCM. Climate Dynamics, 2015, 45, 2901-2918.	3.8	51
26	Changes in Global Ocean Bottom Properties and Volume Transports in CMIP5 Models under Climate Change Scenarios*. Journal of Climate, 2015, 28, 2917-2944.	3.2	63
27	Propagation of the Madden-Julian Oscillation through the Maritime Continent and scale interaction with the diurnal cycle of precipitation. Quarterly Journal of the Royal Meteorological Society, 2014, 140, 814-825.	2.7	229
28	The Importance of Planetary Rotation Period for Ocean Heat Transport. Astrobiology, 2014, 14, 645-650.	3.0	47
29	Spatial and Temporal Scales of Sverdrup Balance*. Journal of Physical Oceanography, 2014, 44, 2644-2660.	1.7	38
30	Ocean processes at the Antarctic continental slope. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2014, 372, 20130047.	3.4	45
31	The effects of different sudden stratospheric warming types on the ocean. Geophysical Research Letters, 2014, 41, 7739-7745.	4.0	34
32	Importance of oceanic resolution and mean state on the extra-tropical response to El Niño in a matrix of coupled models. Climate Dynamics, 2013, 41, 1439-1452.	3.8	20
33	Southern Ocean bottom water characteristics in CMIP5 models. Geophysical Research Letters, 2013, 40, 1409-1414.	4.0	179
34	Nonlinear Climate Responses to Changes in Antarctic Intermediate Water. Journal of Climate, 2013, 26, 9175-9193.	3.2	1
35	Direct observations of the Antarctic circumpolar current transport on the northern flank of the Kerguelen Plateau. Journal of Geophysical Research: Oceans, 2013, 118, 1333-1348.	2.6	9
36	Temporal Variability of Diapycnal Mixing in Shag Rocks Passage. Journal of Physical Oceanography, 2012, 42, 370-385.	1.7	11

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37	Dynamical Ocean Forcing of the Madden-Julian Oscillation at Lead Times of up to Five Months. <i>Journal of Climate</i> , 2012, 25, 2824-2842.	3.2	21
38	Upper ocean manifestations of a reducing meridional overturning circulation. <i>Geophysical Research Letters</i> , 2012, 39, .	4.0	15
39	Southern Ocean fronts: Controlled by wind or topography?. <i>Journal of Geophysical Research</i> , 2012, 117, .	3.3	80
40	Ocean Rossby waves as a triggering mechanism for primary Madden-Julian events. <i>Quarterly Journal of the Royal Meteorological Society</i> , 2012, 138, 514-527.	2.7	57
41	Rossby wave dynamics of the North Pacific extra-tropical response to El Niño: importance of the basic state in coupled GCMs. <i>Climate Dynamics</i> , 2011, 37, 391-405.	3.8	28
42	North Atlantic climate responses to perturbations in Antarctic Intermediate Water. <i>Climate Dynamics</i> , 2011, 37, 297-311.	3.8	6
43	Circulation and Water Mass Modification in the Brazil-Malvinas Confluence. <i>Journal of Physical Oceanography</i> , 2010, 40, 845-864.	1.7	46
44	Mixed Layer Temperature Response to the Southern Annular Mode: Mechanisms and Model Representation. <i>Journal of Climate</i> , 2010, 23, 664-678.	3.2	20
45	The flow of the Antarctic Circumpolar Current over the North Scotia Ridge. <i>Deep-Sea Research Part I: Oceanographic Research Papers</i> , 2010, 57, 14-28.	1.4	36
46	Impact of Resolution on the Tropical Pacific Circulation in a Matrix of Coupled Models. <i>Journal of Climate</i> , 2009, 22, 2541-2556.	3.2	82
47	Variability of Subantarctic Mode Water and Antarctic Intermediate Water in the Drake Passage during the Late-Twentieth and Early-Twenty-First Centuries. <i>Journal of Climate</i> , 2009, 22, 3661-3688.	3.2	100
48	The Role of Eddies in the Southern Ocean Temperature Response to the Southern Annular Mode. <i>Journal of Climate</i> , 2009, 22, 806-818.	3.2	95
49	U.K. HiGEM: The New U.K. High-Resolution Global Environment Model—Model Description and Basic Evaluation. <i>Journal of Climate</i> , 2009, 22, 1861-1896.	3.2	214
50	Eddy heat fluxes from direct current measurements of the Antarctic Polar Front in Shag Rocks Passage. <i>Geophysical Research Letters</i> , 2008, 35, .	4.0	17
51	The Impacts of the Oceans on Climate Change. , 2008, , .		1
52	A Greenland Sea Perspective on the Dynamics of Postconvective Eddies*. <i>Journal of Physical Oceanography</i> , 2008, 38, 2755-2771.	1.7	15
53	Meridional heat transport across the Antarctic Circumpolar Current by the Antarctic Bottom Water overturning cell. <i>Geophysical Research Letters</i> , 2007, 34, .	4.0	5
54	Short-circuiting of the overturning circulation in the Antarctic Circumpolar Current. <i>Nature</i> , 2007, 447, 194-197.	27.8	81

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55	A Decomposition of the Atlantic Meridional Overturning. <i>Journal of Physical Oceanography</i> , 2006, 36, 2253-2270.	1.7	31
56	Interannual variability of the Tropical Atlantic independent of and associated with ENSO: Part II. The South Tropical Atlantic. <i>International Journal of Climatology</i> , 2006, 26, 1957-1976.	3.5	34
57	Interannual variability of the tropical Atlantic independent of and associated with ENSO: Part I. The North Tropical Atlantic. <i>International Journal of Climatology</i> , 2006, 26, 1937-1956.	3.5	58
58	Physiological state of phytoplankton communities in the Southwest Atlantic sector of the Southern Ocean, as measured by fast repetition rate fluorometry. <i>Polar Biology</i> , 2005, 29, 44-52.	1.2	58
59	Can limited ocean mixing buffer rapid climate change?. <i>Tellus, Series A: Dynamic Meteorology and Oceanography</i> , 2005, 57, 676-690.	1.7	5
60	Coupled Ocean-Atmosphere Interactions between the Madden-Julian Oscillation and Synoptic-Scale Variability over the Warm Pool. <i>Journal of Climate</i> , 2005, 18, 2004-2020.	3.2	14
61	Comparison of two time-variant forced eddy-permitting global ocean circulation models with hydrography of the Scotia Sea. <i>Ocean Modelling</i> , 2005, 9, 105-132.	2.4	12
62	Short-term climate response to a freshwater pulse in the Southern Ocean. <i>Geophysical Research Letters</i> , 2005, 32, .	4.0	41
63	Can limited ocean mixing buffer rapid climate change?. <i>Tellus, Series A: Dynamic Meteorology and Oceanography</i> , 2005, 57, 676-690.	1.7	10
64	Tracking passive drifters in a high resolution ocean model: implications for interannual variability of larval krill transport to South Georgia. <i>Deep-Sea Research Part I: Oceanographic Research Papers</i> , 2004, 51, 909-909.	1.4	1
65	On the fate of the Antarctic Slope Front and the origin of the Weddell Front. <i>Journal of Geophysical Research</i> , 2004, 109, .	3.3	104
66	Tracking passive drifters in a high resolution ocean model: implications for interannual variability of larval krill transport to South Georgia. <i>Deep-Sea Research Part I: Oceanographic Research Papers</i> , 2004, 51, 909-920.	1.4	58
67	An additional deep-water mass in Drake Passage as revealed by <sup>3</sup> He data. <i>Deep-Sea Research Part I: Oceanographic Research Papers</i> , 2003, 50, 1079-1098.	1.4	48
68	Water Mass Conversion, Fluxes, and Mixing in the Scotia Sea Diagnosed by an Inverse Model. <i>Journal of Physical Oceanography</i> , 2003, 33, 2565-2587.	1.7	54
69	The Antarctic Circumpolar Current between the Falkland Islands and South Georgia. <i>Journal of Physical Oceanography</i> , 2002, 32, 1914-1931.	1.7	58
70	Modification and pathways of Southern Ocean Deep Waters in the Scotia Sea. <i>Deep-Sea Research Part I: Oceanographic Research Papers</i> , 2002, 49, 681-705.	1.4	152
71	On the export of Antarctic Bottom Water from the Weddell Sea. <i>Deep-Sea Research Part II: Topical Studies in Oceanography</i> , 2002, 49, 4715-4742.	1.4	163
72	Variability of the southern Antarctic Circumpolar Current front north of South Georgia. <i>Journal of Marine Systems</i> , 2002, 37, 87-105.	2.1	107

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73	High mixing rates in the abyssal Southern Ocean. <i>Nature</i> , 2002, 415, 1011-1014.	27.8	97
74	Antarctic Circumpolar Current response to zonally averaged winds. <i>Journal of Geophysical Research</i> , 2001, 106, 2743-2759.	3.3	35
75	Deep and Bottom Waters in the Eastern Scotia Sea: Rapid Changes in Properties and Circulation. <i>Journal of Physical Oceanography</i> , 2001, 31, 2157-2168.	1.7	30
76	Glacial thermohaline circulation states of the northern Atlantic: the compatibility of modelling and observations. <i>Journal of the Geological Society</i> , 2000, 157, 655-665.	2.1	9
77	Mixing and convection in the Greenland Sea from a tracer-release experiment. <i>Nature</i> , 1999, 401, 902-904.	27.8	61
78	Passive tracers in a general circulation model of the Southern Ocean. <i>Annales Geophysicae</i> , 1999, 17, 971-982.	1.6	5
79	Simulations of two Last Glacial Maximum ocean states. <i>Paleoceanography</i> , 1998, 13, 340-351.	3.0	31
80	Modelling the dynamics and thermodynamics of icebergs. <i>Cold Regions Science and Technology</i> , 1997, 26, 113-135.	3.5	167
81	The importance of interocean exchange south of Africa in a numerical model. <i>Journal of Geophysical Research</i> , 1997, 102, 3303-3315.	3.3	15
82	Optimisation of a parallel ocean general circulation model. <i>Annales Geophysicae</i> , 1997, 15, 1369-1377.	1.6	17
83	The zonal momentum balance in an eddy-resolving general-circulation model of the southern ocean. <i>Quarterly Journal of the Royal Meteorological Society</i> , 1997, 123, 929-951.	2.7	66
84	The zonal momentum balance in an eddy-resolving general-circulation model of the Southern Ocean. <i>Quarterly Journal of the Royal Meteorological Society</i> , 1997, 123, 929-951.	2.7	1
85	Eddy formation behind the tropical island of Aldabra. <i>Deep-Sea Research Part I: Oceanographic Research Papers</i> , 1996, 43, 555-578.	1.4	63
86	Current structure of the south Indian Ocean. <i>Journal of Geophysical Research</i> , 1996, 101, 6377-6391.	3.3	83
87	Prediction of iceberg trajectories for the North Atlantic and Arctic oceans. <i>Geophysical Research Letters</i> , 1996, 23, 3587-3590.	4.0	63
88	The Dynamics of the Antarctic Circumpolar Current. <i>Journal of Physical Oceanography</i> , 1996, 26, 753-774.	1.7	77
89	Sensitivity of the North Atlantic to Surface Forcing in an Ocean General Circulation Model. <i>Journal of Physical Oceanography</i> , 1996, 26, 1129-1141.	1.7	8
90	A New Tracer Advection Scheme for Bryan and Cox Type Ocean General Circulation Models. <i>Journal of Physical Oceanography</i> , 1995, 25, 1731-1741.	1.7	64

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91	The South Atlantic in the Fine-Resolution Antarctic Model. <i>Annales Geophysicae</i> , 1994, 12, 826-839.	1.6	11
92	A note on leapfrogging vortex rings. <i>Fluid Dynamics Research</i> , 1993, 11, 235-244.	1.3	31
93	Implementing finite difference ocean circulation models on MIMD, distributed memory computers. <i>Future Generation Computer Systems</i> , 1993, 9, 11-18.	7.5	1
94	A numerical ocean circulation model of the Norwegian and Greenland Seas. <i>Progress in Oceanography</i> , 1991, 27, 365-402.	3.2	17
95	The Open Boundary Condition in the United Kingdom Fine-Resolution Antarctic Model. <i>Journal of Physical Oceanography</i> , 1991, 21, 1494-1499.	1.7	108
96	On open boundary conditions for three dimensional primitive equation ocean circulation models. <i>Geophysical and Astrophysical Fluid Dynamics</i> , 1990, 51, 103-133.	1.2	127