Andrew J Weaver

List of Publications by Year
in descending order

154 papers	10,319 citations	38742 50 h-index	37204 96 g-index
155 all docs	155 docs citations	155 times ranked	9000 citing authors

#	Article	IF	Citations
1	The role of the thermohaline circulation in abrupt climate change. Nature, 2002, 415, 863-869.	27.8	714
2	The UVic earth system climate model: Model description, climatology, and applications to past, present and future climates. Atmosphere - Ocean, 2001, 39, 361-428.	1.6	604
3	Meltwater Pulse 1A from Antarctica as a Trigger of the Bolling-Allerod Warm Interval. Science, 2003, 299, 1709-1713.	12.6	486
4	Consequences of twenty-first-century policy for multi-millennial climate and sea-level change. Nature Climate Change, 2016, 6, 360-369.	18.8	442
5	Tidally driven mixing in a numerical model of the ocean general circulation. Ocean Modelling, 2004, 6, 245-263.	2.4	377
6	Thermohaline circulation hysteresis: A model intercomparison. Geophysical Research Letters, 2005, 32, .	4.0	344
7	Rapid Rise of Sea Level 19,000 Years Ago and Its Global Implications. Science, 2004, 304, 1141-1144.	12.6	279
8	Setting cumulative emissions targets to reduce the risk of dangerous climate change. Proceedings of the National Academy of Sciences of the United States of America, 2009, 106, 16129-16134.	7.1	249
9	Simulated influence of carbon dioxide, orbital forcing and ice sheets on the climate of the Last Glacial Maximum. Nature, 1998, 394, 847-853.	27.8	228
10	Significant contribution to climate warming from the permafrost carbon feedback. Nature Geoscience, 2012, 5, 719-721.	12.9	214
11	Long-Term Climate Change Commitment and Reversibility: An EMIC Intercomparison. Journal of Climate, 2013, 26, 5782-5809.	3.2	208
12	Detection of human influence on sea-level pressure. Nature, 2003, 422, 292-294.	27.8	204
13	Stability and Variability of the Thermohaline Circulation. Journal of Physical Oceanography, 1993, 23, 39-60.	1.7	197
14	Reduction in areal extent of high-latitude wetlands in response to permafrost thaw. Nature Geoscience, 2011, 4, 444-448.	12.9	188
15	Stability of the Atlantic meridional overturning circulation: A model intercomparison. Geophysical Research Letters, 2012, 39, .	4.0	185
16	An atmospheric energy-moisture balance model: Climatology, interpentadal climate change, and coupling to an ocean general circulation model. Journal of Geophysical Research, 1996, 101, 15111-15128.	3.3	168
17	Multiple Equilibria of an Asymmetric Two-Basin Ocean Model. Journal of Physical Oceanography, 1994, 24, 619-637.	1.7	163
18	Freshwater flux forcing of decadal and interdecadal oceanic variability. Nature, 1991, 353, 836-838.	27.8	162

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19	Rapid interglacial climate fluctuations driven by North Atlantic ocean circulation. Nature, 1994, 367, 447-450.	27.8	146
20	The Role of Mixed Boundary Conditions in Numerical Models of the Ocean's Climate. Journal of Physical Oceanography, 1991, 21, 1470-1493.	1.7	142
21	The Role of Iceâ€“Ocean Interactions in the Variability of the North Atlantic Thermohaline Circulation. Journal of Climate, 2001, 14, 656-675.	3.2	140
22	Temporal-geographical meltwater influences on the North Atlantic conveyor: Implications for the Younger Dryas. Paleoceanography, 1997, 12, 307-320.	3.0	134
23	3 versus 6 months of adjuvant oxaliplatin-fluoropyrimidine combination therapy for colorectal cancer (SCOT): an international, randomised, phase 3, non-inferiority trial. Lancet Oncology, The, 2018, 19, 562-578.	10.7	133
24	Instability of Glacial Climate in a Model of the Ocean- Atmosphere-Cryosphere System. Science, 2002, 295, 1489-1493.	12.6	131
25	The Role of Poleward-Intensifying Winds on Southern Ocean Warming. Journal of Climate, 2007, 20, 5391-5400.	3.2	124
26	Evidence for decadal variability in an ocean general circulation model: An advective mechanism¹. Atmosphere - Ocean, 1991, 29, 197-231.	1.6	119
27	Out of Africa and into an ice age: on the role of global climate change in the late Pleistocene migration of early modern humans out of Africa. Journal of Human Evolution, 2009, 56, 139-151.	2.6	116
28	The Atlanticâ€“Pacific Seesaw. Journal of Climate, 2004, 17, 2033-2038.	3.2	108
29	Radiative forcing of climate by historical land cover change. Geophysical Research Letters, 2003, 30, .	4.0	99
30	Long term fate of anthropogenic carbon. Geophysical Research Letters, 2007, 34, .	4.0	97
31	On the Importance of Vertical Resolution in Certain Ocean General Circulation Models. Journal of Physical Oceanography, 1990, 20, 600-609.	1.7	94
32	The Canada Basin, 1989â€“1995: Upstream events and far-field effects of the Barents Sea. Journal of Geophysical Research, 2002, 107, 19-1.	3.3	89
33	Terrestrial Carbon Cycle Dynamics under Recent and Future Climate Change. Journal of Climate, 2005, 18, 1609-1628.	3.2	86
34	Trends in Canadian precipitation intensity. Atmosphere - Ocean, 2000, 38, 321-347.	1.6	77
35	The climate response to five trillion tonnes ofÂcarbon. Nature Climate Change, 2016, 6, 851-855.	18.8	77
36	Interdecadal Variability of the Thermohaline Circulation in Box-Ocean Models Forced by Fixed Surface Fluxes. Journal of Physical Oceanography, 1999, 29, 865-892.	1.7	72

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37	Daily maximum and minimum temperature trends in a climate model. Geophysical Research Letters, 2002, 29, 70-1-70-4.	4.0	71
38	Validation of sub-grid-scale mixing schemes using CFCs in a global ocean model. Geophysical Research Letters, 1995, 22, 2917-2920.	4.0	64
39	Is the Leeuwin Current driven by Pacific heating and winds?. Progress in Oceanography, 1991, 27, 225-272.	3.2	63
40	On the Link between the Two Modes of the Ocean Thermohaline Circulation and the Formation of Global-Scale Water Masses. Journal of Climate, 2003, 16, 2797-2801.	3.2	59
41	Written Discourse in Scientific Communities: A conversation with two scientists about their views of science, use of language, role of writing in doing science, and compatibility between their epistemic views and language. International Journal of Science Education, 2006, 28, 109-141.	1.9	58
42	Interdecadal climate variability in the subpolar North Atlantic. Climate Dynamics, 1995, 11, 459-467.	3.8	57
43	JEBAR, Bottom Pressure Torque, and Gulf Stream Separation. Journal of Physical Oceanography, 1996, 26, 671-683.	1.7	57
44	Dependence of multiple climate states on ocean mixing parameters. Geophysical Research Letters, 2001, 28, 1027-1030.	4.0	57
45	On the Dynamics of the Leeuwin Current. Journal of Physical Oceanography, 1989, 19, 626-648.	1.7	56
46	Projection of Climate Change onto Modes of Atmospheric Variability. Journal of Climate, 2001, 14, 3551-3565.	3.2	56
47	The net carbon drawdown of small scale afforestation from satellite observations. Global and Planetary Change, 2009, 69, 195-204.	3.5	56
48	Long term climate implications of 2050 emission reduction targets. Geophysical Research Letters, 2007, 34, .	4.0	55
49	Committed climate warming. Nature Geoscience, 2010, 3, 142-143.	12.9	55
50	Late Ordovician glaciation under high atmospheric CO2: A coupled model analysis. Paleoceanography, 1999, 14, 542-558.	3.0	54
51	Modeling the prehistoric arrival of the sweet potato in Polynesia. Journal of Archaeological Science, 2008, 35, 355-367.	2.4	54
52	Nonlinearity of Carbon Cycle Feedbacks. Journal of Climate, 2011, 24, 4255-4275.	3.2	49
53	A Diagnostic Barotropic Finite-Element Ocean Circulation Model. Journal of Atmospheric and Oceanic Technology, 1995, 12, 511-526.	1.3	48
54	On the incompatibility of ocean and atmosphere models and the need for flux adjustments. Climate Dynamics, 1996, 12, 141-170.	3.8	47

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55	Response of the Atlantic meridional overturning circulation to increasing atmospheric CO2: Sensitivity to mean climate state. Geophysical Research Letters, 2007, 34, .	4.0	47
56	Response of the global carbon cycle to human-induced changes in Southern Hemisphere winds. Geophysical Research Letters, 2007, 34, .	4.0	47
57	Southern Ocean Response to Strengthening Winds in an Eddy-Permitting Global Climate Model. Journal of Climate, 2010, 23, 5332-5343.	3.2	47
58	Summer mean circulation of the northwestern Atlantic Ocean. Journal of Geophysical Research, 1995, 100, 779.	3.3	44
59	Carbonâ€cycle feedbacks of changes in the Atlantic meridional overturning circulation under future atmospheric CO₂. Global Biogeochemical Cycles, 2008, 22, .	4.9	43
60	Assessing studentsâ€™ learning about fundamental concepts of climate change under two different conditions. Environmental Education Research, 2012, 18, 665-686.	2.9	43
61	A Horizontal Resolution and Parameter Sensitivity Study of Heat Transport in an Idealized Coupled Climate Model. Journal of Climate, 1997, 10, 2469-2478.	3.2	42
62	Paleoclimatic response of the closing of the Isthmus of Panama in a coupled ocean-atmosphere model. Geophysical Research Letters, 1997, 24, 253-256.	4.0	41
63	On the Role of Wind-Driven Sea Ice Motion on Ocean Ventilation. Journal of Physical Oceanography, 2002, 32, 3376-3395.	1.7	39
64	OCEAN SCIENCE: Global Warming and the Next Ice Age. Science, 2004, 304, 400-402.	12.6	39
65	Comment on "Saturation of the Southern Ocean CO ₂ Sink Due to Recent Climate Change". Science, 2008, 319, 570-570.	12.6	38
66	Interdecadal variability in an idealized model of the North Atlantic. Journal of Geophysical Research, 1994, 99, 12423.	3.3	37
67	Modelling pre-historic transoceanic crossings into the Americas. Quaternary Science Reviews, 2006, 25, 1323-1338.	3.0	37
68	Neoproterozoic â€œsnowball Earthâ€: Dynamic sea ice over a quiescent ocean. Paleoceanography, 2003, 18, n/a-n/a.	3.0	35
69	Joint Occurrence of Daily Temperature and Precipitation Extreme Events over Canada. Journal of Applied Meteorology and Climatology, 2014, 53, 2148-2162.	1.5	35
70	Sensitivity of the inorganic ocean carbon cycle to future climate warming in the UVic coupled model. Atmosphere - Ocean, 2004, 42, 23-42.	1.6	34
71	Relative sensitivity of the Atlantic meridional overturning circulation to river discharge into Hudson Bay and the Arctic Ocean. Journal of Geophysical Research, 2007, 112, .	3.3	34
72	Primary productivity control of simulated carbon cycle-climate feedbacks. Geophysical Research Letters, 2005, 32, n/a-n/a.	4.0	33

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73	The Alberta oil sands and climate. Nature Climate Change, 2012, 2, 134-136.	18.8	33
74	The Influence of Buoyancy Flux from Estuaries on Continental Shelf Circulation. Journal of Physical Oceanography, 1987, 17, 2127-2140.	1.7	31
75	Structure of the upper water column in the northwest North Atlantic: Modern versus Last Glacial Maximum conditions. Paleoceanography, 2002, 17, 2-1-2-15.	3.0	31
76	CO2 threshold for millennial-scale oscillations in the climate system: implications for global warming scenarios. Climate Dynamics, 2008, 30, 161-174.	3.8	31
77	On the Numerical Implementation of Advection Schemes for Use in Conjunction with Various Mixing Parameterizations in the GFDL Ocean Model. Journal of Physical Oceanography, 1997, 27, 369-377.	1.7	30
78	Variation of Labrador Sea Water formation over the Last Glacial cycle in a climate model of intermediate complexity. Quaternary Science Reviews, 2004, 23, 449-465.	3.0	30
79	On the Variability of the Thermohaline Circulation in the GFDL Coupled Model. Journal of Climate, 1998, 11, 759-767.	3.2	29
80	Atlantic deep circulation controlled by freshening in the Southern Ocean. Geophysical Research Letters, 2003, 30, .	4.0	29
81	Sensitivity of the thermohaline circulation to Arctic Ocean runoff. Geophysical Research Letters, 2006, 33, .	4.0	29
82	Response of a climate model to tidal mixing parameterization under present day and last glacial maximum conditions. Ocean Modelling, 2007, 19, 125-137.	2.4	29
83	The Sensitivity of the Atlantic Meridional Overturning Circulation to Freshwater Forcing at Eddy-Permitting Resolutions. Journal of Climate, 2008, 21, 2697-2710.	3.2	29
84	Data-model comparison of the Younger Dryas event. Canadian Journal of Earth Sciences, 2000, 37, 811-830.	1.3	28
85	Distinguishing the Influence of Heat, Freshwater, and Momentum Fluxes on Ocean Circulation and Climate. Journal of Climate, 2002, 15, 3686-3697.	3.2	26
86	The Southern Ocean Overturning: Parameterized versus Permitted Eddies. Journal of Physical Oceanography, 2009, 39, 1634-1651.	1.7	26
87	Importance of wind-driven sea ice motion for the formation of Antarctic Intermediate Water in a global climate model. Geophysical Research Letters, 2001, 28, 4147-4150.	4.0	25
88	Uncertainty in climate change. Nature, 2000, 407, 571-572.	27.8	24
89	Warming of the subpolar Atlantic triggered by freshwater discharge at the continental boundary. Geophysical Research Letters, 2007, 34, .	4.0	23
90	On the influence of the parameterization of lateral boundary layers on the thermohaline circulation in coarse-resolution ocean models. Journal of Marine Research, 1999, 57, 387-426.	0.3	23

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91	Toward the Second Commitment Period of the Kyoto Protocol. Science, 2011, 332, 795-796.	12.6	22
92	Ocean currents and climate. Nature, 1990, 347, 432-432.	27.8	21
93	An analytic model for the Leeuwin Current off western Australia. Continental Shelf Research, 1990, 10, 105-122.	1.8	21
94	Driving the ocean conveyor. Nature, 1995, 378, 135-136.	27.8	21
95	Evaluation of ocean and climate models using presentâ€day observations and forcing. Atmosphere - Ocean, 2000, 38, 271-301.	1.6	21
96	Thermohaline forcing of the Indian Ocean by the Pacific Ocean. Deep-sea Research Part A, Oceanographic Research Papers, 1992, 39, 965-995.	1.5	20
97	Climate change, fisheries, and aquaculture: trends and consequences for Canadian marine biodiversity ¹This manuscript is a companion paper to Vander Zwaag et al. (doi:10.1139/a2012-013) and Hutchings et al. (doi:10.1139/er-2012-0049) also appearing in this issue. These three papers comprise an edited version of a February 2012 Royal Society of Canada Expert Panel	4.5	20
98	Is Canada fulfilling its obligations to sustain marine biodiversity? A summary review, conclusions, and recommendations 1This manuscript is a companion paper to Hutchings et al. (doi:10.1139/a2012-011) and VanderZwaag et al. (doi:10.1139/a2012-013) also appearing in this issue. These three papers comprise an edited version of a February 2012 Royal Society of Canada Expert Panel Report.. Environmental Reviews, 2012, 20, 353-361.	4.5	20
99	3-month versus 6-month adjuvant chemotherapy for patients with high-risk stage II and III colorectal cancer: 3-year follow-up of the SCOT non-inferiority RCT. Health Technology Assessment, 2019, 23, 1-88.	2.8	20
100	Evidence of change in the sea of okhotsk: Implications for the north pacific. Atmosphere - Ocean, 2003, 41, 49-63.	1.6	19
101	Climate Change detection over different land surface vegetation classes. International Journal of Climatology, 2007, 27, 211-220.	3.5	19
102	Stochastic models of the meridional overturning circulation: time scales and patterns of variability. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2008, 366, 2525-2542.	3.4	19
103	Carbon storage on exposed continental shelves during the glacial-interglacial transition. Geophysical Research Letters, 2006, 33, .	4.0	18
104	If Anthropogenic CO₂ Emissions Cease, Will Atmospheric CO₂ Concentration Continue to Increase?. Journal of Climate, 2013, 26, 9563-9576.	3.2	17
105	Extratropical subduction and decadal modulation of El NiÃ±o. Geophysical Research Letters, 1999, 26, 743-746.	4.0	16
106	Structure and mixing across an Arctic/Atlantic front in northern Baffin Bay. Geophysical Research Letters, 2003, 30, .	4.0	16
107	The Discovery of Western Oceania: A New Perspective. Journal of Island and Coastal Archaeology, 2007, 2, 197-209.	1.4	16
108	Sea Surface Temperature-Evaporation Feedback and the Ocean's Thermohaline Circulation. Journal of Physical Oceanography, 1996, 26, 644-654.	1.7	15

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109	Drake Passage and Central American Seaway controls on the distribution of the oceanic carbon reservoir. Global and Planetary Change, 2015, 128, 72-82.	3.5	15
110	A Region of Enhanced Northward Antarctic Intermediate Water Transport in a Coupled Climate Model. Journal of Physical Oceanography, 2003, 33, 1528-1535.	1.7	15
111	Conveying past climates. Nature, 1994, 372, 41-42.	27.8	14
112	Impact of climate sensitivity and polar amplification on projections of Greenland Ice Sheet loss. Climate Dynamics, 2014, 43, 2249-2260.	3.8	14
113	Stratospheric cooling and the troposphere. Nature, 2004, 432, 1-1.	27.8	13
114	Predation and the Evolution of Free Spawning in Marine Calanoid Copepods. Oikos, 1988, 51, 189.	2.7	12
115	Semi-Lagrangian Advection Algorithms for Ocean Circulation Models. Journal of Atmospheric and Oceanic Technology, 1995, 12, 935-950.	1.3	12
116	Thermohaline Variability: The Effects of Horizontal Resolution and Diffusion. Journal of Climate, 1998, 11, 709-715.	3.2	12
117	The oceans and global warming. Nature, 1993, 364, 192-193.	27.8	11
118	Global glaciation in the Neoproterozoic: Reconciling previous modelling results. Geophysical Research Letters, 2004, 31, .	4.0	11
119	Climate, African and Beringian subaerial continental shelves, and migration of early peoples. Quaternary International, 2008, 183, 83-101.	1.5	11
120	Can Regulation of Freshwater Runoff in Hudson Bay Affect the Climate of the North Atlantic?. Arctic, 1996, 49, .	0.4	11
121	Millennial timescale variability in ocean/climate models. Geophysical Monograph Series, 1999, , 285-300.	0.1	10
122	On the sensitivity of projected oceanic thermal expansion to the parameterisation of sub-grid scale ocean mixing. Geophysical Research Letters, 1999, 26, 3461-3464.	4.0	10
123	North Atlantic response to the above-normal export of sea ice from the Arctic. Journal of Geophysical Research, 2003, 108, .	3.3	10
124	Surface Melting over Ice Shelves and Ice Sheets as Assessed from Modeled Surface Air Temperatures. Journal of Climate, 2010, 23, 1929-1936.	3.2	10
125	Southern Ocean upwelling and eddies: sensitivity of the global overturning to the surface density range. Tellus, Series A: Dynamic Meteorology and Oceanography, 2003, 55, 106-111.	1.7	10
126	Lowâ€frequency internal oceanic variability under seasonal forcing. Journal of Geophysical Research, 1992, 97, 9541-9563.	3.3	9

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127	Climate stability as deduced from an idealized coupled atmosphere-ocean model. Climate Dynamics, 1995, 11, 141-150.	3.8	9
128	What drives heat transport in the Atlantic: Sensitivity to mechanical energy supply and buoyancy forcing in the Southern Ocean. Geophysical Research Letters, 2004, 31, .	4.0	9
129	The Southern Ocean as a Source Region for Tropical Atlantic Variability. Journal of Climate, 2004, 17, 3960-3972.	3.2	9
130	The Effect of Potential Future Climate Change on the Marine Methane Hydrate Stability Zone. Journal of Climate, 2006, 19, 5903-5917.	3.2	9
131	The impact of rising atmospheric CO2on Simulated sea ice induced thermohaline circulation variability. Geophysical Research Letters, 2000, 27, 1519-1522.	4.0	8
132	Improved representation of seaâ€ice processes in climate models. Atmosphere - Ocean, 2002, 40, 21-43.	1.6	8
133	Modelling carbon cycle feedbacks during abrupt climate change. Quaternary Science Reviews, 2004, 23, 431-448.	3.0	8
134	Boreal forests' carbon stores need better management. Nature, 2009, 462, 276-276.	27.8	8
135	The Impact of Tropical Atlantic Freshwater Fluxes on the North Atlantic Meridional Overturning Circulation. Journal of Climate, 2006, 19, 4592-4604.	3.2	7
136	Global climate change. Ocean and Coastal Management, 1998, 39, 73-86.	4.4	6
137	Searching for Added Value in Simulating Climate Extremes with a High-Resolution Regional Climate Model over Western Canada. Atmosphere - Ocean, 2016, 54, 364-384.	1.6	6
138	An assessment of Pinus contorta seed production in British Columbia: Geographic variation and dynamically-downscaled climate correlates from the Canadian Regional Climate Model. Agricultural and Forest Meteorology, 2017, 236, 194-210.	4.8	6
139	Snow cover validation and sensitivity to CO₂in the UVic ESCM. Atmosphere - Ocean, 2009, 47, 224-237.	1.6	4
140	Interdecadal climate variability in the subpolar North Atlantic. Climate Dynamics, 1995, 11, 459-467.	3.8	4
141	On the incompatibility of ocean and atmosphere models and the need for flux adjustments. Climate Dynamics, 1996, 12, 141-170.	3.8	4
142	The steady state response of the atmosphere to midlatitude heating with various zonal structures. Geophysical and Astrophysical Fluid Dynamics, 1988, 41, 1-44.	1.2	3
143	Propagation of coastalâ€trapped waves under an ice cover in Hudson Bay*. Atmosphere - Ocean, 1992, 30, 593-620.	1.6	3
144	On the circulation of the North Pcific Ocean: climatology, seasonal cycle and interpentadal variability. Progress in Oceanography, 1996, 38, 1-49.	3.2	3

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145	The UVic Earth System climate model and the thermohaline circulation in past, present and future climates. Geophysical Monograph Series, 2004, , 279-296.	0.1	3
146	Freshwater Forcing: Will History Repeat Itself?. Science, 2008, 320, 316-317.	12.6	3
147	Downscaling of Precipitation over Vancouver Island using a Synoptic Typing Approach. Atmosphere - Ocean, 2012, 50, 176-196.	1.6	3
148	Searching for Added Value in Simulating Climate Extremes with a High-Resolution Regional Climate Model over Western Canada. II: Basin-Scale Results. Atmosphere - Ocean, 2016, 54, 385-402.	1.6	3
149	Climate and the migration of early peoples into the Americas. , 2007, , .		2
150	A Two Level Model of the Steady State Response of the Atmosphere to Midlatitude Heating with Various Zonal Structures. Journal of the Meteorological Society of Japan, 1987, 65, 537-554.	1.8	1
151	Response to the comments by Peter Huybers. Quaternary Science Reviews, 2004, 23, 210-212.	3.0	1
152	A Time Dependent Model of the Atmospheric Response to Midlatitude Heating with Various Zonal Structures. Journal of the Meteorological Society of Japan, 1988, 66, 227-246.	1.8	0
153	Correspondence: Comment on â€œa parametrization of solar energy disposition in the climate systemâ€• (Wang et al., 2004). Atmosphere - Ocean, 2004, 42, 293-294.	1.6	0
154	Climate stability as deduced from an idealized coupled atmosphere-ocean model. Climate Dynamics, 1995, 11, 141-150.	3.8	0