

David W J Thompson

List of Publications by Year in descending order

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108
papers

18,210
citations

50566

48
h-index

29333

108
g-index

110
all docs

110
docs citations

110
times ranked

11477
citing authors

#	ARTICLE	IF	CITATIONS
1	The Simulated Atmospheric Response to Western North Pacific Sea Surface Temperature Anomalies. <i>Journal of Climate</i> , 2022, 35, 3335-3352.	1.2	5
2	Understanding the Role of Ocean Dynamics in Midlatitude Sea Surface Temperature Variability Using a Simple Stochastic Climate Model. <i>Journal of Climate</i> , 2022, 35, 3313-3333.	1.2	5
3	Long-range prediction and the stratosphere. <i>Atmospheric Chemistry and Physics</i> , 2022, 22, 2601-2623.	1.9	24
4	Links between climate sensitivity and the large-scale atmospheric circulation in a simple general circulation model. <i>Journal of Climate</i> , 2022, , 1-38.	1.2	0
5	On the Southern Hemisphere Stratospheric Response to ENSO and Its Impacts on Tropospheric Circulation. <i>Journal of Climate</i> , 2022, 35, 1963-1981.	1.2	2
6	Observed Linkages Between the Atmospheric Circulation and Oceanic Forced Sea Surface Temperature Variability in the Western North Pacific. <i>Geophysical Research Letters</i> , 2022, 49, .	1.5	1
7	Climate Impacts and Potential Drivers of the Unprecedented Antarctic Ozone Holes of 2020 and 2021. <i>Geophysical Research Letters</i> , 2022, 49, .	1.5	16
8	Downstream Suppression of Baroclinic Waves. <i>Journal of Climate</i> , 2021, 34, 919-930.	1.2	2
9	On the effects of the ocean on atmospheric CFC-11 lifetimes and emissions. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2021, 118, e2021528118.	3.3	5
10	Quantifying the Role of Ocean Dynamics in Ocean Mixed Layer Temperature Variability. <i>Journal of Climate</i> , 2021, 34, 2567-2589.	1.2	6
11	The 2019 Southern Hemisphere Stratospheric Polar Vortex Weakening and Its Impacts. <i>Bulletin of the American Meteorological Society</i> , 2021, 102, E1150-E1171.	1.7	55
12	Emergence of Southern Hemisphere stratospheric circulation changes in response to ozone recovery. <i>Nature Geoscience</i> , 2021, 14, 638-644.	5.4	24
13	Widespread changes in surface temperature persistence under climate change. <i>Nature</i> , 2021, 599, 425-430.	13.7	32
14	Evaluating Stratospheric Tropical Width Using Tracer Concentrations. <i>Journal of Geophysical Research D: Atmospheres</i> , 2020, 125, e2020JD033081.	1.2	3
15	A Basic Effect of Cloud Radiative Effects on Tropical Sea Surface Temperature Variability. <i>Journal of Climate</i> , 2020, 33, 4333-4346.	1.2	2
16	The Key Role of Coupled Chemistry-Climate Interactions in Tropical Stratospheric Temperature Variability. <i>Journal of Climate</i> , 2020, 33, 7619-7629.	1.2	4
17	The Role of Tropical, Midlatitude, and Polar Cloud-Radiative Changes for the Midlatitude Circulation Response to Global Warming. <i>Journal of Climate</i> , 2020, 33, 7927-7943.	1.2	6
18	Arctic cloud annual cycle biases in climate models. <i>Atmospheric Chemistry and Physics</i> , 2019, 19, 8759-8782.	1.9	38

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19	Rare forecasted climate event under way in the Southern Hemisphere. <i>Nature</i> , 2019, 573, 495-495.	13.7	18
20	Australian hot and dry extremes induced by weakenings of the stratospheric polar vortex. <i>Nature Geoscience</i> , 2019, 12, 896-901.	5.4	87
21	A Robust Constraint on the Temperature and Height of the Extratropical Tropopause. <i>Journal of Climate</i> , 2019, 32, 273-287.	1.2	5
22	The Importance of Unresolved Biases in Twentieth-Century Sea Surface Temperature Observations. <i>Bulletin of the American Meteorological Society</i> , 2019, 100, 621-629.	1.7	15
23	Thermodynamic Control on the Poleward Shift of the Extratropical Jet in Climate Change Simulations: The Role of Rising High Clouds and Their Radiative Effects. <i>Journal of Climate</i> , 2019, 32, 917-934.	1.2	27
24	On the Observed Relationships between Wintertime Variability in Kuroshio-Oyashio Extension Sea Surface Temperatures and the Atmospheric Circulation over the North Pacific. <i>Journal of Climate</i> , 2018, 31, 4669-4681.	1.2	26
25	The Risks of Contracting the Acquisition and Processing of the Nation's Weather and Climate Data to the Private Sector. <i>Bulletin of the American Meteorological Society</i> , 2018, 99, 869-870.	1.7	6
26	Seasonal Evolution of Stratosphere-Troposphere Coupling in the Southern Hemisphere and Implications for the Predictability of Surface Climate. <i>Journal of Geophysical Research D: Atmospheres</i> , 2018, 123, 12,002.	1.2	53
27	Evidence for Predictive Skill of High-Latitude Climate Due to Midsummer Sea Ice Extent Anomalies. <i>Geophysical Research Letters</i> , 2018, 45, 9114-9122.	1.5	9
28	Revisiting the Mystery of Recent Stratospheric Temperature Trends. <i>Geophysical Research Letters</i> , 2018, 45, 9919-9933.	1.5	51
29	Observed Changes in the Southern Hemispheric Circulation in May. <i>Journal of Climate</i> , 2017, 30, 527-536.	1.2	16
30	Intraseasonal Periodicity in the Southern Hemisphere Circulation on Regional Spatial Scales. <i>Journals of the Atmospheric Sciences</i> , 2017, 74, 865-877.	0.6	9
31	Quantifying the Lead Time Required for a Linear Trend to Emerge from Natural Climate Variability. <i>Journal of Climate</i> , 2017, 30, 10179-10191.	1.2	8
32	Thermodynamic constraint on the depth of the global tropospheric circulation. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2017, 114, 8181-8186.	3.3	42
33	Observed connections of Arctic stratospheric ozone extremes to Northern Hemisphere surface climate. <i>Environmental Research Letters</i> , 2017, 12, 024004.	2.2	61
34	The Signature of Southern Hemisphere Atmospheric Circulation Patterns in Antarctic Precipitation. <i>Geophysical Research Letters</i> , 2017, 44, 11580-11589.	1.5	56
35	The Influence of Atmospheric Cloud Radiative Effects on the Large-Scale Stratospheric Circulation. <i>Journal of Climate</i> , 2017, 30, 5621-5635.	1.2	5
36	What Makes an Annular Mode "Annular"? <i>Journals of the Atmospheric Sciences</i> , 2017, 74, 317-332.	0.6	13

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37	Observed Signatures of the Barotropic and Baroclinic Annular Modes in Cloud Vertical Structure and Cloud Radiative Effects. <i>Journal of Climate</i> , 2016, 29, 4723-4740.	1.2	13
38	Stratospheric temperature changes during the satellite era. <i>Journal of Geophysical Research D: Atmospheres</i> , 2016, 121, 664-681.	1.2	44
39	The signatures of large-scale patterns of atmospheric variability in Antarctic surface temperatures. <i>Journal of Geophysical Research D: Atmospheres</i> , 2016, 121, 3276-3289.	1.2	73
40	On the Observed Relationships between Variability in Gulf Stream Sea Surface Temperatures and the Atmospheric Circulation over the North Atlantic. <i>Journal of Climate</i> , 2016, 29, 3719-3730.	1.2	33
41	Baroclinic and Barotropic Annular Variability in the Northern Hemisphere. <i>Journals of the Atmospheric Sciences</i> , 2015, 72, 1117-1136.	0.6	25
42	The Influence of Atmospheric Cloud Radiative Effects on the Large-Scale Atmospheric Circulation. <i>Journal of Climate</i> , 2015, 28, 7263-7278.	1.2	68
43	Quantifying the Role of Internal Climate Variability in Future Climate Trends. <i>Journal of Climate</i> , 2015, 28, 6443-6456.	1.2	143
44	Comparing the Roles of Barotropic versus Baroclinic Feedbacks in the Atmosphere's Response to Mechanical Forcing. <i>Journals of the Atmospheric Sciences</i> , 2014, 71, 177-194.	0.6	19
45	Barotropic and Baroclinic Annular Variability in the Southern Hemisphere. <i>Journals of the Atmospheric Sciences</i> , 2014, 71, 1480-1493.	0.6	63
46	Periodic Variability in the Large-Scale Southern Hemisphere Atmospheric Circulation. <i>Science</i> , 2014, 343, 641-645.	6.0	57
47	Global Warming and Winter Weather. <i>Science</i> , 2014, 343, 729-730.	6.0	231
48	Observed linkages between the northern annular mode/North Atlantic Oscillation, cloud incidence, and cloud radiative forcing. <i>Geophysical Research Letters</i> , 2014, 41, 1681-1688.	1.5	42
49	On the Identification of the Downward Propagation of Arctic Stratospheric Climate Change over Recent Decades*. <i>Journal of Climate</i> , 2014, 27, 2789-2799.	1.2	14
50	Influences of the Antarctic Ozone Hole on Southern Hemispheric Summer Climate Change. <i>Journal of Climate</i> , 2014, 27, 6245-6264.	1.2	42
51	A global survey of the instantaneous linkages between cloud vertical structure and large-scale climate. <i>Journal of Geophysical Research D: Atmospheres</i> , 2014, 119, 3770-3792.	1.2	40
52	On the Signatures of Equatorial and Extratropical Wave Forcing in Tropical Tropopause Layer Temperatures. <i>Journals of the Atmospheric Sciences</i> , 2013, 70, 1084-1102.	0.6	31
53	The signature of the stratospheric Brewer-Dobson circulation in tropospheric clouds. <i>Journal of Geophysical Research D: Atmospheres</i> , 2013, 118, 3486-3494.	1.2	26
54	Up-gradient eddy fluxes of potential vorticity near the subtropical jet. <i>Geophysical Research Letters</i> , 2013, 40, 5988-5993.	1.5	24

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55	Seasonal Relationships between Large-Scale Climate Variability and Antarctic Sea Ice Concentration. <i>Journal of Climate</i> , 2012, 25, 5451-5469.	1.2	127
56	On the Linkages between the Tropospheric Isentropic Slope and Eddy Fluxes of Heat during Northern Hemisphere Winter. <i>Journals of the Atmospheric Sciences</i> , 2012, 69, 1811-1823.	0.6	23
57	The mystery of recent stratospheric temperature trends. <i>Nature</i> , 2012, 491, 692-697.	13.7	106
58	Equatorial Planetary Waves and Their Signature in Atmospheric Variability. <i>Journals of the Atmospheric Sciences</i> , 2012, 69, 857-874.	0.6	35
59	Does increasing model stratospheric resolution improve extended-range forecast skill?. <i>Geophysical Research Letters</i> , 2011, 38, n/a-n/a.	1.5	53
60	The influence of Southern Hemisphere sea-ice extent on the latitude of the mid-latitude jet stream. <i>Geophysical Research Letters</i> , 2011, 38, .	1.5	51
61	The Seasonal Cycle and Interannual Variability in Stratospheric Temperatures and Links to the Brewer-Dobson Circulation: An Analysis of MSU and SSU Data. <i>Journal of Climate</i> , 2011, 24, 6243-6258.	1.2	33
62	Signatures of the Antarctic ozone hole in Southern Hemisphere surface climate change. <i>Nature Geoscience</i> , 2011, 4, 741-749.	5.4	781
63	The Three-Dimensional Distribution of Clouds over the Southern Hemisphere High Latitudes. <i>Journal of Climate</i> , 2011, 24, 5799-5811.	1.2	34
64	Isentropic Slopes, Downgradient Eddy Fluxes, and the Extratropical Atmospheric Circulation Response to Tropical Tropospheric Heating. <i>Journals of the Atmospheric Sciences</i> , 2011, 68, 2292-2305.	0.6	52
65	A Global Survey of Static Stability in the Stratosphere and Upper Troposphere. <i>Journal of Climate</i> , 2010, 23, 2275-2292.	1.2	99
66	An abrupt drop in Northern Hemisphere sea surface temperature around 1970. <i>Nature</i> , 2010, 467, 444-447.	13.7	110
67	The Steady-State Atmospheric Circulation Response to Climate Change-like Thermal Forcings in a Simple General Circulation Model. <i>Journal of Climate</i> , 2010, 23, 3474-3496.	1.2	269
68	Comparing variability and trends in observed and modelled global-mean surface temperature. <i>Geophysical Research Letters</i> , 2010, 37, .	1.5	24
69	On the Role of Radiative Processes in Stratosphere-Troposphere Coupling. <i>Journal of Climate</i> , 2009, 22, 4154-4161.	1.2	27
70	Identifying Signatures of Natural Climate Variability in Time Series of Global-Mean Surface Temperature: Methodology and Insights. <i>Journal of Climate</i> , 2009, 22, 6120-6141.	1.2	150
71	A critical comparison of stratosphere-troposphere coupling indices. <i>Quarterly Journal of the Royal Meteorological Society</i> , 2009, 135, 1661-1672.	1.0	193
72	Coupled chemistry climate model simulations of stratospheric temperatures and their trends for the recent past. <i>Geophysical Research Letters</i> , 2009, 36, .	1.5	29

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73	An update of observed stratospheric temperature trends. <i>Journal of Geophysical Research</i> , 2009, 114, .	3.3	260
74	Understanding Recent Stratospheric Climate Change. <i>Journal of Climate</i> , 2009, 22, 1934-1943.	1.2	70
75	Observational Evidence of Reemergence in the Extratropical Southern Hemisphere. <i>Journal of Climate</i> , 2009, 22, 1446-1453.	1.2	11
76	A large discontinuity in the mid-twentieth century in observed global-mean surface temperature. <i>Nature</i> , 2008, 453, 646-649.	13.7	265
77	Observations of Large-Scale Ocean–Atmosphere Interaction in the Southern Hemisphere. <i>Journal of Climate</i> , 2008, 21, 1244-1259.	1.2	133
78	Contrasts between Antarctic and Arctic ozone depletion. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2007, 104, 445-449.	3.3	51
79	Australian Rainfall and Surface Temperature Variations Associated with the Southern Hemisphere Annular Mode. <i>Journal of Climate</i> , 2007, 20, 2452-2467.	1.2	446
80	Observed relationships between the Southern Annular Mode and atmospheric carbon dioxide. <i>Global Biogeochemical Cycles</i> , 2007, 21, .	1.9	18
81	Is Antarctic climate most sensitive to ozone depletion in the middle or lower stratosphere?. <i>Geophysical Research Letters</i> , 2007, 34, .	1.5	12
82	Effects of ozone cooling in the tropical lower stratosphere and upper troposphere. <i>Geophysical Research Letters</i> , 2007, 34, .	1.5	75
83	On the Tropospheric Response to Anomalous Stratospheric Wave Drag and Radiative Heating. <i>Journals of the Atmospheric Sciences</i> , 2006, 63, 2616-2629.	0.6	86
84	Observed Relationships between the El Niño–Southern Oscillation and the Extratropical Zonal-Mean Circulation. <i>Journal of Climate</i> , 2006, 19, 276-287.	1.2	383
85	Recent Stratospheric Climate Trends as Evidenced in Radiosonde Data: Global Structure and Tropospheric Linkages. <i>Journal of Climate</i> , 2005, 18, 4785-4795.	1.2	112
86	Stratosphere–Troposphere Coupling in the Southern Hemisphere. <i>Journals of the Atmospheric Sciences</i> , 2005, 62, 708-715.	0.6	182
87	The Importance of Atmospheric Dynamics in the Northern Hemisphere Wintertime Climate Response to Changes in the Earth’s Orbit. <i>Journal of Climate</i> , 2005, 18, 1315-1325.	1.2	30
88	On the distribution and variability of ozone in the tropical upper troposphere: Implications for tropical deep convection and chemical-dynamical coupling. <i>Geophysical Research Letters</i> , 2005, 32, .	1.5	63
89	Four decades of ozonesonde measurements over Antarctica. <i>Journal of Geophysical Research</i> , 2005, 110, .	3.3	102
90	Stratosphere-troposphere evolution during polar vortex intensification. <i>Journal of Geophysical Research</i> , 2005, 110, .	3.3	156

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91	The Life Cycle of the Northern Hemisphere Sudden Stratospheric Warmings. <i>Journal of Climate</i> , 2004, 17, 2584-2596.	1.2	409
92	The Signature of the Annular Modes in the Tropical Troposphere. <i>Journal of Climate</i> , 2004, 17, 4330-4342.	1.2	52
93	North Atlantic Atmosphere-Ocean Interaction on Intraseasonal Time Scales. <i>Journal of Climate</i> , 2004, 17, 1617-1621.	1.2	22
94	Atmospheric processes governing the Northern Hemisphere annular mode/North Atlantic Oscillation. <i>Geophysical Monograph Series</i> , 2003, , 81-112.	0.1	77
95	ATMOSPHERIC SCIENCE: Weather from the Stratosphere?. <i>Science</i> , 2003, 301, 317-319.	6.0	92
96	Simulation of Recent Southern Hemisphere Climate Change. <i>Science</i> , 2003, 302, 273-275.	6.0	519
97	Stratospheric Memory and Skill of Extended-Range Weather Forecasts. <i>Science</i> , 2003, 301, 636-640.	6.0	455
98	The Pacific Center of Action of the Northern Hemisphere Annular Mode: Real or Artifact?. <i>Journal of Climate</i> , 2002, 15, 1987-1991.	1.2	156
99	Annular Modes and Climate Prediction. <i>Physics Today</i> , 2002, 55, 28-33.	0.3	77
100	Stratospheric Connection to Northern Hemisphere Wintertime Weather: Implications for Prediction. <i>Journal of Climate</i> , 2002, 15, 1421-1428.	1.2	409
101	Interpretation of Recent Southern Hemisphere Climate Change. <i>Science</i> , 2002, 296, 895-899.	6.0	1,594
102	Regional Climate Impacts of the Northern Hemisphere Annular Mode. <i>Science</i> , 2001, 293, 85-89.	6.0	756
103	The Relationship between the Meridional Profile of Zonal-mean Geostrophic Wind and Station Wave at 500 hPa. <i>Advances in Atmospheric Sciences</i> , 2001, 18, 692-700.	1.9	1
104	Comments on "Northern Hemisphere Teleconnection Patterns during Extreme Phases of the Zonal-Mean Circulation". <i>Journal of Climate</i> , 2000, 13, 1037-1039.	1.2	11
105	Can ozone depletion and global warming interact to produce rapid climate change?. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2000, 97, 1412-1417.	3.3	311
106	Annular Modes in the Extratropical Circulation. Part I: Month-to-Month Variability*. <i>Journal of Climate</i> , 2000, 13, 1000-1016.	1.2	2,571
107	Annular Modes in the Extratropical Circulation. Part II: Trends. <i>Journal of Climate</i> , 2000, 13, 1018-1036.	1.2	936
108	The Arctic oscillation signature in the wintertime geopotential height and temperature fields. <i>Geophysical Research Letters</i> , 1998, 25, 1297-1300.	1.5	3,381