Brian J Soden

List of Publications by Year
in descending order

142 papers	20,343 citations	28274 55 h-index	10445 139 g-index
148 all docs	148 docs citations	148 times ranked	13794 citing authors

#	Article	IF	Citations
1	Using Satellite Observations to Evaluate the Relationships between Ice Condensate, Latent Heat Release, and Tropical Cyclone Intensification in a Mesoscale Model. Monthly Weather Review, 2021, 149, 113-129.	1.4	3
2	Compensation Between Cloud Feedback and Aerosolâ€Cloud Interaction in CMIP6 Models. Geophysical Research Letters, 2021, 48, e2020GL091024.	4.0	33
3	The Role of Radiative Interactions in Tropical Cyclone Development under Realistic Boundary Conditions. Journal of Climate, 2021, 34, 2079-2091.	3.2	7
4	Observational Evidence of Increasing Global Radiative Forcing. Geophysical Research Letters, 2021, 48, e2020GL091585.	4.0	45
5	Global Climate. Bulletin of the American Meteorological Society, 2021, 102, S11-S142.	3.3	36
6	Examining the Role of Cloud Radiative Interactions in Tropical Cyclone Development Using Satellite Measurements and WRF Simulations. Geophysical Research Letters, 2021, 48, e2021GL093259.	4.0	11
7	Evaluating Observational Constraints on Intermodel Spread in Cloud, Temperature, and Humidity Feedbacks. Geophysical Research Letters, 2021, 48, e2020GL092309.	4.0	3
8	Enhanced hydrological cycle increases ocean heat uptake and moderates transient climate change. Nature Climate Change, 2021, 11, 848-853.	18.8	13
9	Sea Surface Salinity Response to Tropical Cyclones Based on Satellite Observations. Remote Sensing, 2021, 13, 420.	4.0	13
10	Influence of Vertical Wind Shear on the Ocean Response to Tropical Cyclones Based on Satellite Observations. Geophysical Research Letters, 2021, 48, e2021GL095451.	4.0	4
11	Evaluation of CloudSat Radiative Kernels Using ARM and CERES Observations and ERA5 Reanalysis. Journal of Geophysical Research D: Atmospheres, 2021, 126, e2020JD034510.	3.3	0
12	Water vapor and lapse rate feedbacks in the climate system. Reviews of Modern Physics, 2021, 93, .	45.6	25
13	Ice Water Content as a Precursor to Tropical Cyclone Rapid Intensification. Geophysical Research Letters, 2020, 47, e2020GL089669.	4.0	8
14	Observed Modulation of the Tropical Radiation Budget by Deep Convective Organization and Lowerâ€Tropospheric Stability. AGU Advances, 2020, 1, e2019AV000155.	5.4	31
15	Convective Aggregation and the Amplification of Tropical Precipitation Extremes. AGU Advances, 2020, 1, e2020AV000201.	5.4	5
16	Global Climate. Bulletin of the American Meteorological Society, 2020, 101, S9-S128.	3.3	61
17	Radiative Forcing of Climate: The Historical Evolution of the Radiative Forcing Concept, the Forcing Agents and their Quantification, and Applications. Meteorological Monographs, 2019, 59, 14.1-14.101.	5.0	52
18	Constraining Climate Model Projections of Regional Precipitation Change. Geophysical Research Letters, 2019, 46, 10522-10531.	4.0	19

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19	On the Correlation between Total Condensate and Moist Heating in Tropical Cyclones and Applications for Diagnosing Intensity. Monthly Weather Review, 2019, 147, 3759-3784.	1.4	5
20	Radiative Feedbacks Associated with the Maddenâ€“Julian Oscillation. Journal of Climate, 2019, 32, 7055-7065.	3.2	12
21	Evaluating Climate Model Simulations of the Radiative Forcing and Radiative Response at Earthâ€™s Surface. Journal of Climate, 2019, 32, 4089-4102.	3.2	7
22	Observationâ€Based Radiative Kernels From CloudSat/CALIPSO. Journal of Geophysical Research D: Atmospheres, 2019, 124, 5431-5444.	3.3	26
23	Reconciling opposing Walker circulation trends in observations and model projections. Nature Climate Change, 2019, 9, 405-412.	18.8	86
24	On the compensation between cloud feedback and cloud adjustment in climate models. Climate Dynamics, 2018, 50, 1267-1276.	3.8	6
25	Designing the Climate Observing System of the Future. Earth's Future, 2018, 6, 80-102.	6.3	24
26	Shape of Atlantic Tropical Cyclone Tracks and the Indian Monsoon. Geophysical Research Letters, 2018, 45, 10,746.	4.0	13
27	Understanding Rapid Adjustments to Diverse Forcing Agents. Geophysical Research Letters, 2018, 45, 12023-12031.	4.0	113
28	Quantifying the Importance of Rapid Adjustments for Global Precipitation Changes. Geophysical Research Letters, 2018, 45, 11399-11405.	4.0	26
29	Impact of Ocean Eddy Resolution on the Sensitivity of Precipitation to CO 2 Increase. Geophysical Research Letters, 2018, 45, 7194-7203.	4.0	8
30	Reducing uncertainties in climate models. Science, 2018, 361, 326-327.	12.6	64
31	Atmospheric and Oceanic Origins of Tropical Precipitation Variability. Journal of Climate, 2017, 30, 3197-3217.	3.2	28
32	Hemispheric climate shifts driven by anthropogenic aerosolâ€“cloud interactions. Nature Geoscience, 2017, 10, 566-571.	12.9	55
33	The Large-Scale Dynamical Response of Clouds to Aerosol Forcing. Journal of Climate, 2017, 30, 8783-8794.	3.2	11
34	Signatures of Tropical Cyclone Intensification in Satellite Measurements of Ice and Liquid Water Content. Monthly Weather Review, 2017, 145, 4081-4091.	1.4	10
35	A re-examination of the projected subtropical precipitation decline. Nature Climate Change, 2017, 7, 53-57.	18.8	85
36	An assessment of the consistency between satellite measurements of upper tropospheric water vapor. Journal of Geophysical Research D: Atmospheres, 2016, 121, 2874-2887.	3.3	10

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37	The impact of SST biases on projections of anthropogenic climate change: A greater role for atmosphereâ€only models?. Geophysical Research Letters, 2016, 43, 7745-7750.	4.0	44
38	Will surface winds weaken in response to global warming?. Environmental Research Letters, 2016, 11, 124012.	5.2	28
39	The Sensitivity of the Hydrological Cycle to Internal Climate Variability versus Anthropogenic Climate Change. Journal of Climate, 2016, 29, 3661-3673.	3.2	15
40	Does the Lack of Coupling in SST-Forced Atmosphere-Only Models Limit Their Usefulness for Climate Change Studies?. Journal of Climate, 2016, 29, 4317-4325.	3.2	35
41	An assessment of methods for computing radiative forcing in climate models. Environmental Research Letters, 2015, 10, 074004.	5.2	36
42	An Assessment of Direct Radiative Forcing, Radiative Adjustments, and Radiative Feedbacks in Coupled Oceanâ€“Atmosphere Models*. Journal of Climate, 2015, 28, 4152-4170.	3.2	49
43	The Impact of Natural and Anthropogenic Climate Change on Western North Pacific Tropical Cyclone Tracks*. Journal of Climate, 2015, 28, 1806-1823.	3.2	54
44	Retrieving Layer-Averaged Tropospheric Humidity From Advanced Technology Microwave Sounder Water Vapor Channels. IEEE Transactions on Geoscience and Remote Sensing, 2015, 53, 6675-6688.	6.3	7
45	Anthropogenic Weakening of the Tropical Circulation: The Relative Roles of Direct CO2 Forcing and Sea Surface Temperature Change. Journal of Climate, 2015, 28, 8728-8742.	3.2	87
46	The spectral dimension of longwave feedback in the CMIP3 and CMIP5 experiments. Geophysical Research Letters, 2014, 41, 7830-7837.	4.0	16
47	Upper-tropospheric moistening in response to anthropogenic warming. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, 11636-11641.	7.1	90
48	Observational and Model Estimates of Cloud Amount Feedback over the Indian and Pacific Oceans. Journal of Climate, 2014, 27, 925-940.	3.2	24
49	Satellite-Based Reconstruction of the Tropical Oceanic Clear-Sky Outgoing Longwave Radiation and Comparison with Climate Models. Journal of Climate, 2014, 27, 941-957.	3.2	4
50	The robustness of the atmospheric circulation and precipitation response to future anthropogenic surface warming. Geophysical Research Letters, 2014, 41, 2614-2622.	4.0	50
51	The Impact of Anthropogenic Climate Change on North Atlantic Tropical Cyclone Tracks*. Journal of Climate, 2013, 26, 4088-4095.	3.2	58
52	Intercalibrating Microwave Satellite Observations for Monitoring Long-Term Variations in Upper- and Midtropospheric Water Vapor*. Journal of Atmospheric and Oceanic Technology, 2013, 30, 2303-2319.	1.3	17
53	Achieving Climate Change Absolute Accuracy in Orbit. Bulletin of the American Meteorological Society, 2013, 94, 1519-1539.	3.3	239
54	Assessing the quality of humidity measurements from global operational radiosonde sensors. Journal of Geophysical Research D: Atmospheres, 2013, 118, 8040-8053.	3.3	43

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55	An assessment of the diurnal variation of upper tropospheric humidity in reanalysis data sets. Journal of Geophysical Research D: Atmospheres, 2013, 118, 3425-3430.	3.3	21
56	Climatological Variations in North Atlantic Tropical Cyclone Tracks. Journal of Climate, 2012, 25, 657-673.	3.2	107
57	Observed changes in top-of-the-atmosphere radiation and upper-ocean heating consistent within uncertainty. Nature Geoscience, 2012, 5, 110-113.	12.9	293
58	Diagnosing Climate Feedbacks in Coupled Oceanâ€“Atmosphere Models. Surveys in Geophysics, 2012, 33, 733-744.	4.6	9
59	Diagnosing Climate Feedbacks in Coupled Oceanâ€“Atmosphere Models. Space Sciences Series of ISSI, 2012, , 401-412.	0.0	1
60	Clear-sky biases in satellite infrared estimates of upper tropospheric humidity and its trends. Journal of Geophysical Research, 2011, 116, .	3.3	53
61	The response of the Walker circulation to Last Glacial Maximum forcing: Implications for detection in proxies. Paleoceanography, 2011, 26, .	3.0	77
62	Evidence for a weakening of tropical surface wind extremes in response to atmospheric warming. Geophysical Research Letters, 2011, 38, .	4.0	20
63	The vertical distribution of cloud feedback in coupled ocean-atmosphere models. Geophysical Research Letters, 2011, 38, n/a-n/a.	4.0	123
64	Model-simulated humidity bias in the upper troposphere and its relation to the large-scale circulation. Journal of Geophysical Research, 2011, 116, .	3.3	17
65	Investigating the Influence of Carbon Dioxide and the Stratosphere on the Long-Term Tropospheric Temperature Monitoring from HIRS. Journal of Applied Meteorology and Climatology, 2010, 49, 1927-1937.	1.5	7
66	Current changes in tropical precipitation. Environmental Research Letters, 2010, 5, 025205.	5.2	197
67	An assessment of climate feedback processes using satellite observations of clearâ€sky OLR. Geophysical Research Letters, 2010, 37, .	4.0	15
68	Radiative signature of increasing atmospheric carbon dioxide in HIRS satellite observations. Geophysical Research Letters, 2010, 37, .	4.0	7
69	Revisiting the determination of climate sensitivity from relationships between surface temperature and radiative fluxes. Geophysical Research Letters, 2010, 37, .	4.0	23
70	Climate Response of the Equatorial Pacific to Global Warming. Journal of Climate, 2009, 22, 4873-4892.	3.2	260
71	A Satellite-Based Assessment of Upper-Tropospheric Water Vapor Measurements during AFWEX. Journal of Applied Meteorology and Climatology, 2009, 48, 2284-2294.	1.5	5
72	Model projected changes of extreme wind events in response to global warming. Geophysical Research Letters, 2009, 36, .	4.0	84

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73	How robust are observed and simulated precipitation responses to tropical ocean warming?. Geophysical Research Letters, 2009, 36, .	4.0	67
74	An upper tropospheric humidity data set from operational satellite microwave data. Journal of Geophysical Research, 2008, 113, .	3.3	50
75	Examining the Tropical Pacific's Response to Global Warming. Eos, 2008, 89, 81-83.	0.1	198
76	An assessment of the tropical humidityâ€temperature covariance using AIRS. Geophysical Research Letters, 2008, 35, .	4.0	8
77	Atmospheric Warming and the Amplification of Precipitation Extremes. Science, 2008, 321, 1481-1484.	12.6	1,182
78	Whither Hurricane Activity?. Science, 2008, 322, 687-689.	12.6	162
79	Lagrangian Diagnostics of Tropical Deep Convection and Its Effect upon Upper-Tropospheric Humidity. Journal of Climate, 2008, 21, 1013-1028.	3.2	19
80	Quantifying Climate Feedbacks Using Radiative Kernels. Journal of Climate, 2008, 21, 3504-3520.	3.2	612
81	Global Warming and the Weakening of the Tropical Circulation. Journal of Climate, 2007, 20, 4316-4340.	3.2	1,036
82	Detection and Correction of Diurnal Sampling Bias in HIRS/2 Brightness Temperatures. Journal of Atmospheric and Oceanic Technology, 2007, 24, 1425-1438.	1.3	22
83	An investigation of the sensitivity of the clear-sky outgoing longwave radiation to atmospheric temperature and water vapor. Journal of Geophysical Research, 2007, 112, .	3.3	45
84	Increased tropical Atlantic wind shear in model projections of global warming. Geophysical Research Letters, 2007, 34, .	4.0	235
85	Temperature and humidity biases in global climate models and their impact on climate feedbacks. Geophysical Research Letters, 2007, 34, .	4.0	105
86	Large discrepancy between observed and simulated precipitation trends in the ascending and descending branches of the tropical circulation. Geophysical Research Letters, 2007, 34, .	4.0	98
87	Effect of remote sea surface temperature change on tropical cyclone potential intensity. Nature, 2007, 450, 1066-1070.	27.8	376
88	Global mean cloud feedbacks in idealized climate change experiments. Geophysical Research Letters, 2006, 33, .	4.0	58
89	Does convectively-detrained cloud ice enhance water vapor feedback?. Geophysical Research Letters, 2006, 33, .	4.0	20
90	Correction to â€œDoes convectively-detrained cloud ice enhance water vapor feedback?â€• Geophysical Research Letters, 2006, 33, .	4.0	3

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91	How Well Do We Understand and Evaluate Climate Change Feedback Processes?. Journal of Climate, 2006, 19, 3445-3482.	3.2	849
92	Anthropogenic and Natural Influences in the Evolution of Lower Stratospheric Cooling. Science, 2006, 311, 1138-1141.	12.6	139
93	Robust Responses of the Hydrological Cycle to Global Warming. Journal of Climate, 2006, 19, 5686-5699.	3.2	3,753
94	Toward a long-term homogenized UTH data set derived from satellite microwave measurements. , 2006, , .		0
95	Association of Tropical Cirrus in the 10â€“15-km Layer with Deep Convective Sources: An Observational Study Combining Millimeter Radar Data and Satellite-Derived Trajectories. Journals of the Atmospheric Sciences, 2006, 63, 480-503.	1.7	73
96	GFDL's CM2 Global Coupled Climate Models. Part IV: Idealized Climate Response. Journal of Climate, 2006, 19, 723-740.	3.2	110
97	Weakening of tropical Pacific atmospheric circulation due to anthropogenic forcing. Nature, 2006, 441, 73-76.	27.8	894
98	On the contribution of local feedback mechanisms to the range of climate sensitivity in two GCM ensembles. Climate Dynamics, 2006, 27, 17-38.	3.8	334
99	Importance of the mixed-phase cloud distribution in the control climate for assessing the response of clouds to carbon dioxide increase: a multi-model study. Climate Dynamics, 2006, 27, 113-126.	3.8	156
100	A comparison of low-latitude cloud properties and their response to climate change in three AGCMs sorted into regimes using mid-tropospheric vertical velocity. Climate Dynamics, 2006, 27, 261-279.	3.8	101
101	An Assessment of Climate Feedbacks in Coupled Oceanâ€“Atmosphere Models. Journal of Climate, 2006, 19, 3354-3360.	3.2	875
102	The Sensitivity of the Tropical-Mean Radiation Budget. Journal of Climate, 2005, 18, 3189-3203.	3.2	43
103	The Radiative Signature of Upper Tropospheric Moistening. Science, 2005, 310, 841-844.	12.6	259
104	Diurnal cycle of summertime deep convection over North America: A satellite perspective. Journal of Geophysical Research, 2005, 110, .	3.3	48
105	Interannual co-variability of tropical temperature and humidity: A comparison of model, reanalysis data and satellite observation. Geophysical Research Letters, 2005, 32, .	4.0	13
106	On the Use of Cloud Forcing to Estimate Cloud Feedback. Journal of Climate, 2004, 17, 3661-3665.	3.2	208
107	An analysis of satellite, radiosonde, and lidar observations of upper tropospheric water vapor from the Atmospheric Radiation Measurement Program. Journal of Geophysical Research, 2004, 109, n/a-n/a.	3.3	68
108	Diurnal cycle of convection, clouds, and water vapor in the tropical upper troposphere: Satellites versus a general circulation model. Journal of Geophysical Research, 2004, 109, .	3.3	149

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109	The impact of tropical convection and cirrus on upper tropospheric humidity: A Lagrangian analysis of satellite measurements. Geophysical Research Letters, 2004, 31, .	4.0	37
110	Bimodality in tropical water vapour. Quarterly Journal of the Royal Meteorological Society, 2003, 129, 2847-2866.	2.7	113
111	Bimodality in tropical water vapour. Quarterly Journal of the Royal Meteorological Society, 2003, 129, 2847-2866.	2.7	7
112	Creating Climate Reference Datasets: CARDS Workshop on Adjusting Radiosonde Temperature Data for Climate Monitoring. Bulletin of the American Meteorological Society, 2002, 83, 891-899.	3.3	40
113	‹title›Far-infrared: a frontier in remote sensing of Earth's climate and energy balance‹/title›. , 2002, 4485, 150.		14
114	Evidence for Large Decadal Variability in the Tropical Mean Radiative Energy Budget. Science, 2002, 295, 841-844.	12.6	333
115	A Comparison of Model- and Satellite-Derived Aerosol Optical Depth and Reflectivity. Journals of the Atmospheric Sciences, 2002, 59, 441-460.	1.7	96
116	An Evaluation of Airâ€“Sea Flux Products for ENSO Simulation and Prediction. Monthly Weather Review, 2002, 130, 723-732.	1.4	29
117	Global Cooling After the Eruption of Mount Pinatubo: A Test of Climate Feedback by Water Vapor. Science, 2002, 296, 727-730.	12.6	424
118	The Impact of Satellite Winds on Experimental GFDL Hurricane Model Forecasts. Monthly Weather Review, 2001, 129, 835-852.	1.4	68
119	Decadal Variations in Tropical Water Vapor: A Comparison of Observations and a Model Simulation. Journal of Climate, 2000, 13, 3337-3341.	3.2	12
120	An Intercomparison of Radiation Codes for Retrieving Upperâ€“Tropospheric Humidity in the 6.3â€“mm Band: A Report from the First GVaP Workshop. Bulletin of the American Meteorological Society, 2000, 81, 797-808.	3.3	43
121	Enlightening water vapour. Nature, 2000, 406, 247-248.	27.8	16
122	WATERVAPORFEEDBACK ANDGLOBALWARMING. Annual Review of Environment and Resources, 2000, 25, 441-475.	1.2	923
123	The Sensitivity of the Tropical Hydrological Cycle to ENSO. Journal of Climate, 2000, 13, 538-549.	3.2	102
124	The diurnal cycle of convection, clouds, and water vapor in the tropical upper troposphere. Geophysical Research Letters, 2000, 27, 2173-2176.	4.0	86
125	Tropospheric Aerosol Climate Forcing in Clear-Sky Satellite Observations over the Oceans. Science, 1999, 283, 1299-1303.	12.6	297
126	Remote Sea Surface Temperature Variations during ENSO: Evidence for a Tropical Atmospheric Bridge. Journal of Climate, 1999, 12, 917-932.	3.2	1,235

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127	Variations in atmosphere-ocean solar absorption under clear skies: A comparison of observations and models. Geophysical Research Letters, 1998, 25, 2149-2152.	4.0	1
128	Tracking upper tropospheric water vapor radiances: A satellite perspective. Journal of Geophysical Research, 1998, 103, 17069-17081.	3.3	54
129	Variations in the Tropical Greenhouse Effect during El NiÃ±o. Journal of Climate, 1997, 10, 1050-1055.	3.2	47
130	Large-scale ice clouds in the GFDL SKYHI general circulation model. Journal of Geophysical Research, 1997, 102, 21745-21768.	3.3	49
131	Evaluation of model-simulated upper troposphere humidity using 6.7 Î¼m satellite observations. Journal of Geophysical Research, 1997, 102, 25737-25749.	3.3	3
132	Interpretation of TOVS water vapor radiances in terms of layer-average relative humidities: Method and climatology for the upper, middle, and lower troposphere. Journal of Geophysical Research, 1996, 101, 9333-9343.	3.3	96
133	Climate Parameters from Satellite Spectral Measurements. Part 1: Collocated AVHRR and HIRS/2 Observations of Spectral Greenhouse Parameter. Journal of Climate, 1996, 9, 327-344.	3.2	19
134	A Comparison of Satellite Observations and Model Simulations of Column-Integrated Moisture and Upper-Tropospheric Humidity. Journal of Climate, 1996, 9, 1561-1585.	3.2	28
135	An Assessment of Satellite and Radiosonde Climatologies of Upper-Tropospheric Water Vapor. Journal of Climate, 1996, 9, 1235-1250.	3.2	168
136	A Satellite Analysis of Deep Convection, Upper-Tropospheric Humidity, and the Greenhouse Effect. Journal of Climate, 1995, 8, 2333-2351.	3.2	125
137	Evaluation of water vapor distribution in general circulation models using satellite observations. Journal of Geophysical Research, 1994, 99, 1187.	3.3	78
138	Comparison of upper tropospheric water vapor from GOES, Raman lidar, and cross-chain loran atmospheric sounding system measurements. Journal of Geophysical Research, 1994, 99, 21005.	3.3	18
139	Upper tropospheric relative humidity from the GOES 6.7 Î¼m channel: Method and climatology for July 1987. Journal of Geophysical Research, 1993, 98, 16669-16688.	3.3	200
140	Validation of cloud forcing simulated by the National Center for Atmospheric Research community climate model using observations from the Earth Radiation Budget Experiment. Journal of Geophysical Research, 1992, 97, 18137-18159.	3.3	8
141	Water-vapor observations. , 0, , 285-311.		0
142	Investigating the Causes and Impacts of Convective Aggregation in a High Resolution Atmospheric GCM. Journal of Advances in Modeling Earth Systems, 0, , e2021MS002675.	3.8	1