Joanna D Haigh

List of Publications by Year
in descending order

118 papers	7,092 citations	94433 37 h-index	60623 81 g-index
133 all docs	133 docs citations	133 times ranked	5063 citing authors

#	Article	IF	Citations
1	SOLAR INFLUENCES ON CLIMATE. Reviews of Geophysics, 2010, 48, .	23.0	1,014
2	The Impact of Solar Variability on Climate. Science, 1996, 272, 981-984.	12.6	630
3	The role of stratospheric ozone in modulating the solar radiative forcing of climate. Nature, 1994, 370, 544-546.	27.8	399
4	Solar forcing of winter climate variability in the Northern Hemisphere. Nature Geoscience, 2011, 4, 753-757.	12.9	312
5	An influence of solar spectral variations on radiative forcing of climate. Nature, 2010, 467, 696-699.	27.8	242
6	Solar Irradiance Variability and Climate. Annual Review of Astronomy and Astrophysics, 2013, 51, 311-351.	24.3	231
7	Radiative forcing of climate change. Weather, 2002, 57, 278-283.	0.7	226
8	The effects of solar variability on the Earth's climate. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2003, 361, 95-111.	3.4	223
9	The Response of Tropospheric Circulation to Perturbations in Lower-Stratospheric Temperature. Journal of Climate, 2005, 18, 3672-3685.	3.2	223
10	Evidence for a continuous decline in lower stratospheric ozone offsetting ozone layer recovery. Atmospheric Chemistry and Physics, 2018, 18, 1379-1394.	4.9	214
11	A comparison of model-simulated trends in stratospheric temperatures. Quarterly Journal of the Royal Meteorological Society, 2003, 129, 1565-1588.	2.7	189
12	The Sun and the Earth's Climate. Living Reviews in Solar Physics, 2007, 4, 1.	22.0	181
13	The Role of Eddies in Driving the Tropospheric Response to Stratospheric Heating Perturbations. Journals of the Atmospheric Sciences, 2009, 66, 1347-1365.	1.7	179
14	A GCM study of climate change in response to the 11-year solar cycle. Quarterly Journal of the Royal Meteorological Society, 1999, 125, 871-892.	2.7	169
15	Ozone perturbation experiments in a two-dimensional circulation model. Quarterly Journal of the Royal Meteorological Society, 1982, 108, 551-574.	2.7	143
16	Solar cycle signals in sea level pressure and sea surface temperature. Atmospheric Chemistry and Physics, 2010, 10, 3147-3153.	4.9	115
17	The role of microphysical and chemical processes in prolonging the climate forcing of the Toba Eruption. Geophysical Research Letters, 1996, 23, 2669-2672.	4.0	87
18	An approximation to improve accuracy in the derivation of surface reflectances from multiâ€look satellite radiometers. Geophysical Research Letters, 1995, 22, 1693-1696.	4.0	85

#	Article	IF	Citations
19	CLIMATE: Climate Variability and the Influence of the Sun. Science, 2001, 294, 2109-2111.	12.6	85
20	The Effect of Solar UV Irradiance Variations on the Earth's Atmosphere. Space Science Reviews, 2000, 94, 199-214.	8.1	82
21	Some doubts concerning a link between cosmic ray fluxes and global cloudiness. Geophysical Research Letters, 1999, 26, 863-865.	4.0	77
22	Modelling the impact of solar variability on climate. Journal of Atmospheric and Solar-Terrestrial Physics, 1999, 61, 63-72.	1.6	71
23	Solar Influences on Dynamical Coupling Between the Stratosphere and Troposphere. Space Science Reviews, 2007, 125, 331-344.	8.1	66
24	The ISSWG line-by-line inter-comparison experiment. Journal of Quantitative Spectroscopy and Radiative Transfer, 2003, 77, 433-453.	2.3	62
25	Influences of ozone depletion, the solar cycle and the QBO on the Southern Annular Mode. Quarterly Journal of the Royal Meteorological Society, 2007, 133, 1855-1864.	2.7	59
26	Improved Broadband Emissivity Parameterization for Water Vapor Cooling Rate Calculations. Journals of the Atmospheric Sciences, 1995, 52, 124-138.	1.7	57
27	The greenhouse effect and carbon dioxide. Weather, 2013, 68, 100-105.	0.7	57
28	The Final Warming Date of the Antarctic Polar Vortex and Influences on its Interannual Variability. Journal of Climate, 2009, 22, 5809-5819.	3.2	56
29	Causal networks for climate model evaluation and constrained projections. Nature Communications, 2020, 11, 1415.	12.8	55
30	Radiative forcing due to trends in stratospheric water vapour. Geophysical Research Letters, 2001, 28, 179-182.	4.0	50
31	Using machine learning to build temperature-based ozone parameterizations for climate sensitivity simulations. Environmental Research Letters, 2018, 13, 104016.	5.2	48
32	A New SATIRE-S Spectral Solar Irradiance Reconstruction for Solar Cycles 21â€“23 and Its Implications for Stratospheric Ozone*. Journals of the Atmospheric Sciences, 2014, 71, 4086-4101.	1.7	47
33	Radiative heating in the lower stratosphere and the distribution of ozone in a two-dimensional model. Quarterly Journal of the Royal Meteorological Society, 1984, 110, 167-185.	2.7	45
34	Solar Cycle Signals in the Pacific and the Issue of Timings. Journals of the Atmospheric Sciences, 2012, 69, 1446-1451.	1.7	45
35	High solar cycle spectral variations inconsistent with stratospheric ozone observations. Nature Geoscience, 2016, 9, 206-209.	12.9	45
36	On the ambiguous nature of the 11â€‰year solar cycle signal in upper stratospheric ozone. Geophysical Research Letters, 2016, 43, 7241-7249.	4.0	43

#	Article	IF	Citations
37	Top-down solar modulation of climate: evidence for centennial-scale change. Environmental Research Letters, 2010, 5, 034008.	5.2	42
38	Slowdown of the Walker circulation at solar cycle maximum. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 7186-7191.	7.1	42
39	A tropospheric ozone-lightning climate feedback. Geophysical Research Letters, 1996, 23, 1037-1040.	4.0	41
40	Retrieval of aerosol optical thickness over land using the ATSR-2 Dual-Look Satellite Radiometer. Geophysical Research Letters, 1996, 23, 351-354.	4.0	38
41	Solar variability and climate. Weather, 2000, 55, 399-407.	0.7	38
42	GRIPS Solar Experiments Intercomparison Project: Initial Results. Papers in Meteorology and Geophysics, 2003, 54, 71-90.	0.9	38
43	A two-dimensional calculation including atmospheric carbon dioxide and stratospheric ozone. Nature, 1979, 279, 222-224.	27.8	36
44	Influence of the prescribed solar spectrum on calculations of atmospheric temperature. Geophysical Research Letters, 2008, 35, .	4.0	36
45	Solar influences on polar modes of variability. Meteorologische Zeitschrift, 2006, 15, 371-378.	1.0	35
46	Reconciling differences in stratospheric ozone composites. Atmospheric Chemistry and Physics, 2017, 17, 12269-12302.	4.9	35
47	Traceable radiometry underpinning terrestrial- and helio-studies (TRUTHS). Advances in Space Research, 2003, 32, 2253-2261.	2.6	33
48	The contribution of unknown weak water vapor lines to the absorption of solar radiation. Geophysical Research Letters, 1999, 26, 3609-3612.	4.0	32
49	Fundamentals of pair diffusion in kinematic simulations of turbulence. Physical Review E, 2006, 74, 036309.	2.1	31
50	Acceleration statistics as measures of statistical persistence of streamlines in isotropic turbulence. Physical Review E, 2005, 71, 015301.	2.1	30
51	Possible Dynamical Mechanisms for Southern Hemisphere Climate Change due to the Ozone Hole. Journals of the Atmospheric Sciences, 2012, 69, 2917-2932.	1.7	30
52	Seasonal trends in stratospheric water vapour. Geophysical Research Letters, 2000, 27, 1687-1690.	4.0	28
53	The influence of solar variability and the quasi-biennial oscillation on lower atmospheric temperatures and sea level pressure. Atmospheric Chemistry and Physics, 2011, 11, 11679-11687.	4.9	27
54	Solar response in tropical stratospheric ozone: a 3-D chemical transport model study using ERA reanalyses. Atmospheric Chemistry and Physics, 2011, 11, 12773-12786.	4.9	27

#	Article	IF	Citations
55	Evaluation of simulated photolysis rates and their response to solar irradiance variability. Journal of Geophysical Research D: Atmospheres, 2016, 121, 6066-6084.	3.3	27
56	Mean meridional circulations of the stratosphere and mesosphere. Pure and Applied Geophysics, 1980, 118, 307-328.	1.9	26
57	Atmospheric correction over case 2 waters with an iterative fitting algorithm. Applied Optics, 1996, 35, 5443.	2.1	25
58	Stratospheric O₃ changes during 2001â€“2010: the small role of solar flux variations in a chemical transport model. Atmospheric Chemistry and Physics, 2013, 13, 10113-10123.	4.9	25
59	Impact of EOS MLS ozone data on mediumâ€extended range ensemble weather forecasts. Journal of Geophysical Research D: Atmospheres, 2014, 119, 9253-9266.	3.3	25
60	Radiative cooling near the mesopause. Nature, 1979, 281, 660-661.	27.8	24
61	An important uncertainty in coupled chlorineâ€“carbon dioxide studies of atmospheric ozone modification. Nature, 1987, 329, 616-619.	27.8	24
62	Model simulations of the impact of the 27-day solar rotation period on stratospheric ozone and temperature. Advances in Space Research, 2001, 27, 1933-1942.	2.6	24
63	The impact of new water vapour spectral line parameters on the calculation of atmospheric absorption. Quarterly Journal of the Royal Meteorological Society, 2001, 127, 1615-1626.	2.7	23
64	The Impact of the State of the Troposphere on the Response to Stratospheric Heating in a Simplified GCM. Journal of Climate, 2010, 23, 6166-6185.	3.2	22
65	A Mechanism for the Effect of Tropospheric Jet Structure on the Annular Modeâ€“Like Response to Stratospheric Forcing. Journals of the Atmospheric Sciences, 2012, 69, 2152-2170.	1.7	22
66	Annular Variability and Eddyâ€“Zonal Flow Interactions in a Simplified Atmospheric GCM. Part I: Characterization of High- and Low-Frequency Behavior. Journals of the Atmospheric Sciences, 2009, 66, 3075-3094.	1.7	21
67	Strong Dynamical Modulation of the Cooling of the Polar Stratosphere Associated with the Antarctic Ozone Hole. Journal of Climate, 2012, 26, 662-668.	3.2	18
68	Climate forcing by stratospheric ozone depletion calculated from observed temperature trends. Geophysical Research Letters, 1996, 23, 3183-3186.	4.0	17
69	Cirrus cloud top-of-atmosphere radiance spectra in the thermal infrared. Journal of Quantitative Spectroscopy and Radiative Transfer, 1999, 63, 487-498.	2.3	16
70	The Upper Stratospheric Solar Cycle Ozone Response. Geophysical Research Letters, 2019, 46, 1831-1841.	4.0	13
71	One-particle two-time diffusion in three-dimensional homogeneous isotropic turbulence. Physics of Fluids, 2005, 17, 035104.	4.0	11
72	Infrared properties of cirrus clouds in climate models. Quarterly Journal of the Royal Meteorological Society, 2007, 133, 273-282.	2.7	11

#	Article	IF	Citations
73	Simulated reflectance technique for ATM image enhancement. International Journal of Remote Sensing, 1997, 18, 243-254.	2.9	10
74	Note on 'The impact of new water vapour spectral line parameters on the calculation of atmospheric absorption'. Quarterly Journal of the Royal Meteorological Society, 2002, 128, 1387-1388.	2.7	10
75	Threeâ€dimensional radiative transfer in midlatitude cirrus clouds. Quarterly Journal of the Royal Meteorological Society, 2008, 134, 199-215.	2.7	9
76	Tropical Pacific climate variability under solar geoengineering: impacts on ENSO extremes. Atmospheric Chemistry and Physics, 2020, 20, 15461-15485.	4.9	9
77	A Study of the Radiative Dissipation of Planetary Waves Using Satellite Data. Journals of the Atmospheric Sciences, 1992, 49, 1304-1317.	1.7	8
78	First results from a 3-dimensional middle atmosphere model. Advances in Space Research, 1993, 13, 363-372.	2.6	8
79	Entropy Production Rates of the Climate. Journals of the Atmospheric Sciences, 2020, 77, 3551-3566.	1.7	8
80	Infrared heating rates in the stratosphere due to volcanic sulphur dioxide. Quarterly Journal of the Royal Meteorological Society, 1996, 122, 1459-1466.	2.7	7
81	A finite elementâ€“spherical harmonics model for radiative transfer in inhomogeneous clouds. Atmospheric Research, 2004, 72, 197-221.	4.1	7
82	The impact of solar variability on the middle atmosphere in present-day and pre-industrial atmospheres. Journal of Atmospheric and Solar-Terrestrial Physics, 2005, 67, 241-249.	1.6	7
83	Assessing the relationship between spectral solar irradiance and stratospheric ozone using Bayesian inference. Journal of Space Weather and Space Climate, 2014, 4, A25.	3.3	7
84	Greenhouse gases in the stratosphere. Journal of Geophysical Research, 1993, 98, 2995-3004.	3.3	6
85	Atmospheric correction over case 2 waters with an iterative fitting algorithm: relative humidity effects. Applied Optics, 1997, 36, 9448.	2.1	6
86	Reconciliation of modeled climate responses to spectral solar forcing. Journal of Geophysical Research D: Atmospheres, 2013, 118, 6281-6289.	3.3	5
87	The effects of increasing humidity on heat transport by extratropical waves. Geophysical Research Letters, 2016, 43, 8314-8321.	4.0	5
88	The Effect of Solar UV Irradiance Variations on the Earthâ€™s Atmosphere. Space Sciences Series of ISSI, 2000, , 199-214.	0.0	5
89	Solar variability and the stratosphere. Geophysical Monograph Series, 2010, , 173-187.	0.1	5
90	The sensitivity of long-wave radiation fields and the response of a GCM to water-vapour continuum absorption. Quarterly Journal of the Royal Meteorological Society, 1999, 125, 1383-1406.	2.7	5

#	Article	IF	Citations
91	A three-dimensional feature space iterative clustering method for multi-spectral image classification. International Journal of Remote Sensing, 1994, 15, 633-644.	2.9	4
92	Retrieving land surface reflectances using the ATSR-2: A theoretical study. Journal of Geophysical Research, 1997, 102, 17163-17171.	3.3	4
93	Fundamentals of the Earth's Atmosphere and Climate. Geophysical Monograph Series, 2004, , 65-81.	0.1	4
94	An unsupervised learning approach to identifying blocking events: the case of European summer. Weather and Climate Dynamics, 2021, 2, 581-608.	3.5	4
95	The retrieval of total optical depth and effective droplet radius of clouds from solar reflection measurements using the Along Track Scanning Radiometer-2 (ATSR-2). Geophysical Research Letters, 1995, 22, 695-698.	4.0	3
96	Shortwave radiative forcing by stratospheric water vapor. Geophysical Research Letters, 2003, 30, .	4.0	3
97	A finite element-spherical harmonics model for radiative transfer in inhomogeneous clouds. Atmospheric Research, 2004, 72, 223-237.	4.1	3
98	Ozone perturbation experiments in a two-dimensional circulation model. Quarterly Journal of the Royal Meteorological Society, 1982, 108, 551-574.	2.7	3
99	A fast method for calculating scaleâ€dependent photochemical acceleration in dynamical models of the stratosphere. Quarterly Journal of the Royal Meteorological Society, 1985, 111, 1027-1038.	2.7	2
100	‹title›Atmospheric correction over case 2 waters using an iterative fitting algorithm including relative humidity‹/title›. , 1997, , .		2
101	Effect of Cloud Vertical Inhomogeneity on the Retrieval of Cirrus Cloud Temperature and Infrared Optical Depth Using the ASTR. Journals of the Atmospheric Sciences, 1999, 56, 2601-2612.	1.7	2
102	‹title›Detecting thin cirrus clouds in high-spectral-resolution infrared data‹/title›. , 2001, 4168, 56.		2
103	Comments on â€œGlobal and Regional Entropy Production by Radiation Estimated from Satellite Observationsâ€• Journal of Climate, 2021, 34, 3721-3728.	3.2	2
104	Similar patterns of tropical precipitation and circulation changes under solar and greenhouse gas forcing. Environmental Research Letters, 2021, 16, 104045.	5.2	2
105	Solar Variability and Climate. Astrophysics and Space Science Library, 2007, , 65-81.	2.7	2
106	The impact of new water vapour spectral line parameters on the calculation of atmospheric absorption. Quarterly Journal of the Royal Meteorological Society, 2001, 127, 1615-1626.	2.7	2
107	Reply [to â€œComment on â€œClimate forcing by stratospheric ozone depletion Calculated from observed temperature trendsâ€•by Zhong et al.â€]. Geophysical Research Letters, 1998, 25, 665-665.	4.0	1
108	Effect of cirrus clouds in the infrared (4 to 100 Î¼m): high-spectral-resolution simulations. , 1998, , .		1

#	Article	IF	Citations
109	The sensitivity of longâ€wave radiation fields and the response of a GCM to waterâ€vapour continuum absorption. Quarterly Journal of the Royal Meteorological Society, 1999, 125, 1383-1406.	2.7	1
110	Report of RMS Discussion Meeting 21 June 2000: Some aspects of the general circulation of the atmosphere - Presidential Address. Atmospheric Science Letters, 2000, 1, 151-152.	1.9	1
111	Assessment of the impact of SF6and PFC reservoir tracers on global warming, the AEOLOS study. Journal of Integrative Environmental Sciences, 2005, 2, 263-272.	0.8	1
112	Solar Influences on Dynamical Coupling Between the Stratosphere and Troposphere. , 2006, , 331-344.		1
113	A fast method for calculating scale-dependent photochemical acceleration in dynamical models of the stratosphere. Quarterly Journal of the Royal Meteorological Society, 1985, 111, 1027-1038.	2.7	1
114	<title>Retrieval of cirrus cloud temperature and infrared optical depth using the Along-Track Scanning Radiometer</title>. , 1996, 2961, 2.		0
115	Erratum to â€˜Threeâ€dimensional radiative transfer in midlatitude cirrus cloudsâ€™. Quarterly Journal of the Royal Meteorological Society, 2008, 134, 1065-1066.	2.7	0
116	RAE wranglings provoke debate. Physics World, 2009, 22, 19-19.	0.0	0
117	MEETING SUMMARIES. Bulletin of the American Meteorological Society, 2010, 91, 1087-1100.	3.3	0
118	A Matrix Method for Calculating Photochemical Acceleration. , 1985, , 33-37.		0