Manoj Joshi

List of Publications by Year
in descending order

97 papers	7,737 citations	70961 41 h-index	54797 84 g-index
117 all docs	117 docs citations	117 times ranked	8971 citing authors

#	Article	IF	Citations
1	Development and evaluation of an Earth-System model â€“ HadGEM2. Geoscientific Model Development, 2011, 4, 1051-1075.	1.3	1,141
2	The HadGEM2 family of Met Office Unified Model climate configurations. Geoscientific Model Development, 2011, 4, 723-757.	1.3	765
3	The New Hadley Centre Climate Model (HadGEM1): Evaluation of Coupled Simulations. Journal of Climate, 2006, 19, 1327-1353.	1.2	424
4	Simulations of the Atmospheres of Synchronously Rotating Terrestrial Planets Orbiting M Dwarfs: Conditions for Atmospheric Collapse and the Implications for Habitability. Icarus, 1997, 129, 450-465.	1.1	333
5	A Reappraisal of The Habitability of Planets around M Dwarf Stars. Astrobiology, 2007, 7, 30-65.	1.5	286
6	Mechanisms for the land/sea warming contrast exhibited by simulations of climate change. Climate Dynamics, 2008, 30, 455-465.	1.7	268
7	Estimating Changes in Global Temperature since the Preindustrial Period. Bulletin of the American Meteorological Society, 2017, 98, 1841-1856.	1.7	238
8	The Structure of the Upper Atmosphere of Mars: In Situ Accelerometer Measurements from Mars Global Surveyor. Science, 1998, 279, 1672-1676.	6.0	234
9	General circulation model simulations of the Mars Pathfinder atmospheric structure investigation/meteorology data. Journal of Geophysical Research, 1999, 104, 8957-8974.	3.3	221
10	Stratospheric Communication of El NiÃ±o Teleconnections to European Winter. Journal of Climate, 2009, 22, 4083-4096.	1.2	194
11	Climate Model Studies of Synchronously Rotating Planets. Astrobiology, 2003, 3, 415-427.	1.5	178
12	Keeping global warming within 1.5 Â°C constrains emergence of aridification. Nature Climate Change, 2018, 8, 70-74.	8.1	158
13	Projections of when temperature change will exceed 2 Â°C above pre-industrial levels. Nature Climate Change, 2011, 1, 407-412.	8.1	151
14	The Effect of Host Star Spectral Energy Distribution and Ice-Albedo Feedback on the Climate of Extrasolar Planets. Astrobiology, 2013, 13, 715-739.	1.5	134
15	A comparison of climate response to different radiative forcings in three general circulation models: towards an improved metric of climate change. Climate Dynamics, 2003, 20, 843-854.	1.7	131
16	A large ozone-circulation feedback and its implications for global warming assessments. Nature Climate Change, 2015, 5, 41-45.	8.1	115
17	An alternative to radiative forcing for estimating the relative importance of climate change mechanisms. Geophysical Research Letters, 2003, 30, .	1.5	114
18	Poorest countries experience earlier anthropogenic emergence of daily temperature extremes. Environmental Research Letters, 2016, 11, 055007.	2.2	108

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19	Going beyond two degrees? The risks and opportunities of alternative options. Climate Policy, 2013, 13, 751-769.	2.6	107
20	Demarcating Circulation Regimes of Synchronously Rotating Terrestrial Planets within the Habitable Zone. Astrophysical Journal, 2018, 852, 67.	1.6	105
21	Intensification of winter transatlantic aviation turbulence in response to climate change. Nature Climate Change, 2013, 3, 644-648.	8.1	102
22	Suppression of the Water Ice and Snow Albedo Feedback on Planets Orbiting Red Dwarf Stars and the Subsequent Widening of the Habitable Zone. Astrobiology, 2012, 12, 3-8.	1.5	99
23	Response of climate to regional emissions of ozone precursors: sensitivities and warming potentials. Tellus, Series B: Chemical and Physical Meteorology, 2005, 57, 283-304.	0.8	88
24	Western boundary currents in the Martian atmosphere: Numerical simulations and observational evidence. Journal of Geophysical Research, 1995, 100, 5485.	3.3	81
25	Habitability of planets around red dwarf stars. Origins of Life and Evolution of Biospheres, 1999, 29, 405-424.	0.8	76
26	Observed Emergence of the Climate Change Signal: From the Familiar to the Unknown. Geophysical Research Letters, 2020, 47, e2019GL086259.	1.5	76
27	Transmission of climate risks across sectors and borders. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2018, 376, 20170301.	1.6	74
28	SPECTRUM-DRIVEN PLANETARY DEGLACIATION DUE TO INCREASES IN STELLAR LUMINOSITY. Astrophysical Journal Letters, 2014, 785, L9.	3.0	72
29	The Extreme Positive Indian Ocean Dipole of 2019 and Associated Indian Summer Monsoon Rainfall Response. Geophysical Research Letters, 2021, 48, e2020GL091497.	1.5	64
30	Uncertainties in the timing of unprecedented climates. Nature, 2014, 511, E3-E5.	13.7	63
31	The Relationship between Landâ€"Ocean Surface Temperature Contrast and Radiative Forcing. Journal of Climate, 2011, 24, 3239-3256.	1.2	60
32	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.	1.0	60
33	Arctic Sea Ice Loss in Different Regions Leads to Contrasting Northern Hemisphere Impacts. Geophysical Research Letters, 2018, 45, 945-954.	1.5	58
34	Population-based emergence of unfamiliarÂclimates. Nature Climate Change, 2017, 7, 407-411.	8.1	57
35	A GCM Study of Volcanic Eruptions as a Cause of Increased Stratospheric Water Vapor. Journal of Climate, 2003, 16, 3525-3534.	1.2	53
36	Global Response of Clearâ€Air Turbulence to Climate Change. Geophysical Research Letters, 2017, 44, 9976-9984.	1.5	51

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37	The Circulation Response to Idealized Changes in Stratospheric Water Vapor. Journal of Climate, 2013, 26, 545-561.	1.2	50
38	The Role Of Halocarbons In The Climate Change Of The Troposphere And Stratosphere. Climatic Change, 2005, 71, 249-266.	1.7	48
39	The Importance of Planetary Rotation Period for Ocean Heat Transport. Astrobiology, 2014, 14, 645-650.	1.5	47
40	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.	3.3	47
41	BoBBLE: Oceanâ€"Atmosphere Interaction and Its Impact on the South Asian Monsoon. Bulletin of the American Meteorological Society, 2018, 99, 1569-1587.	1.7	45
42	The climatic effects of the direct injection of water vapour into the stratosphere by large volcanic eruptions. Atmospheric Chemistry and Physics, 2009, 9, 6109-6118.	1.9	44
43	The temperature response to stratospheric water vapour changes. Quarterly Journal of the Royal Meteorological Society, 2011, 137, 1070-1082.	1.0	44
44	An explanation for the difference between twentieth and twenty-first century landâ€"sea warming ratio in climate models. Climate Dynamics, 2013, 41, 1853-1869.	1.7	43
45	Dependence of the landâ€sea contrast in surface climate response on the nature of the forcing. Geophysical Research Letters, 2008, 35, .	1.5	39
46	Last glacial maximum radiative forcing from mineral dust aerosols in an Earth system model. Journal of Geophysical Research D: Atmospheres, 2015, 120, 8186-8205.	1.2	35
47	Gravity wave drag in three-dimensional atmospheric models of Mars. Journal of Geophysical Research, 1995, 100, 21235.	3.3	34
48	Probabilistic climate forecasts and inductive problems. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2007, 365, 1971-1992.	1.6	34
49	The effects of different sudden stratospheric warming types on the ocean. Geophysical Research Letters, 2014, 41, 7739-7745.	1.5	34
50	Why the South Pacific Convergence Zone is diagonal. Climate Dynamics, 2016, 46, 1683-1698.	1.7	34
51	Southern Ocean deep convection in global climate models: A driver for variability of subpolar gyres and Drake Passage transport on decadal timescales. Journal of Geophysical Research: Oceans, 2016, 121, 3905-3925.	1.0	33
52	On the influence of stratospheric water vapor changes on the tropospheric circulation. Geophysical Research Letters, 2006, 33, .	1.5	32
53	Low-level jets in the NASA Ames Mars general circulation model. Journal of Geophysical Research, 1997, 102, 6511-6523.	3.3	28
54	The potential impact of changes in lower stratospheric water vapour on stratospheric temperatures over the past 30 years. Quarterly Journal of the Royal Meteorological Society, 2014, 140, 2176-2185.	1.0	26

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55	The effect of Arabian Sea optical properties on SST biases and the South Asian summer monsoon in a coupled GCM. Climate Dynamics, 2012, 39, 811-826.	1.7	25
56	Direct and ozoneâ€mediated forcing of the Southern Annular Mode by greenhouse gases. Geophysical Research Letters, 2014, 41, 9050-9057.	1.5	24
57	Western boundary currents in the atmosphere of Mars. Nature, 1994, 367, 548-551.	13.7	23
58	Meteorological predictions for the Mars Pathfinder lander. Journal of Geophysical Research, 1997, 102, 13301-13311.	3.3	23
59	Stratospheric water vapour and high climate sensitivity in a version of the HadSM3 climate model. Atmospheric Chemistry and Physics, 2010, 10, 7161-7167.	1.9	23
60	U.K. Climate Projections: Summer Daytime and Nighttime Urban Heat Island Changes in Englandâ€™s Major Cities. Journal of Climate, 2020, 33, 9015-9030.	1.2	22
61	An interpretation of Martian thermospheric waves based on analysis of a general circulation model. Geophysical Research Letters, 2000, 27, 613-616.	1.5	21
62	Improved Climate Simulations through a Stochastic Parameterization of Ocean Eddies. Journal of Climate, 2016, 29, 8763-8781.	1.2	21
63	Inferring convective responses to El NiÃ±o with atmospheric electricity measurements at Shetland. Environmental Research Letters, 2011, 6, 044028.	2.2	20
64	Mineral dust increases the habitability of terrestrial planets but confounds biomarker detection. Nature Communications, 2020, 11, 2731.	5.8	20
65	The use of the land-sea warming contrast under climate change to improve impact metrics. Climatic Change, 2013, 117, 951-960.	1.7	19
66	Wetter then drier in some tropical areas. Nature Climate Change, 2014, 4, 646-647.	8.1	19
67	Solar signal propagation: The role of gravity waves and stratospheric sudden warmings. Journal of Geophysical Research, 2011, 116, .	3.3	14
68	IGCM4: a fast, parallel and flexible intermediate climate model. Geoscientific Model Development, 2015, 8, 1157-1167.	1.3	14
69	Identifying teleconnections and multidecadal variability of East Asian surface temperature during the last millennium in CMIP5 simulations. Climate of the Past, 2019, 15, 1825-1844.	1.3	14
70	Earthâ€™s Polar Night Boundary Layer as an Analog for Dark Side Inversions on Synchronously Rotating Terrestrial Exoplanets. Astrophysical Journal Letters, 2020, 892, L33.	3.0	14
71	Different atmospheric moisture divergence responses to extreme and moderate El NiÃ±os. Climate Dynamics, 2016, 47, 393-410.	1.7	13
72	Comparison of landâ€“ocean warming ratios in updated observed records and CMIP5 climate models. Environmental Research Letters, 2018, 13, 114011.	2.2	13

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73	Seasonal cycles enhance disparities between low- and high-income countries in exposure to monthly temperature emergence with future warming. Environmental Research Letters, 2017, 12, 114039.	2.2	12
74	Emissions and emergence: a new index comparing relative contributions to climate change with relative climatic consequences. Environmental Research Letters, 2019, 14, 084009.	2.2	12
75	The Effect of Land Fraction and Host Star Spectral Energy Distribution on the Planetary Albedo of Terrestrial Worlds. Astrophysical Journal, 2019, 887, 29.	1.6	12
76	A comparison of MGS Phase 1 aerobraking radio occultation data and the NASA Ames Mars GCM. Journal of Geophysical Research, 2000, 105, 17601-17615.	3.3	11
77	Nonlinear response of Asian summer monsoon precipitation to emission reductions in South and East Asia. Environmental Research Letters, 2022, 17, 014005.	2.2	11
78	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.	1.0	10
79	The Influence of Atlantic Variability on Asian Summer Climate Is Sensitive to the Pattern of the Sea Surface Temperature Anomaly. Journal of Climate, 2020, 33, 7567-7590.	1.2	10
80	Recent United Kingdom and global temperature variations. Weather, 2017, 72, 323-329.	0.6	9
81	Global warming and ocean stratification: A potential result of large extraterrestrial impacts. Geophysical Research Letters, 2017, 44, 3841-3848.	1.5	8
82	The effect of spatial variations in unresolved topography on gravity wave drag in the Martian atmosphere. Geophysical Research Letters, 1996, 23, 2927-2930.	1.5	7
83	A Comparison of Two Dust Uplift Schemes within the Same General Circulation Model. Advances in Meteorology, 2012, 2012, 1-13.	0.6	7
84	Is the mean Venusian tropospheric circulation unsteady?. Geophysical Research Letters, 2002, 29, 6-1-6-4.	1.5	6
85	The development of a new dust uplift scheme in the Met Office Unified Modelâ„¢. Meteorological Applications, 2009, 16, 445-460.	0.9	5
86	Could El NiÃ±o Southern Oscillation affect the results of the Ashes series in Australia?. Weather, 2009, 64, 178-180.	0.6	4
87	Clear-Air Turbulence in a Changing Climate. , 2016, , 465-480.		4
88	A Capacitorâ€Discharge Mechanism to Explain the Timing of Orogenyâ€Related Global Glaciations. Geophysical Research Letters, 2019, 46, 8347-8354.	1.5	4
89	Spatial and temporal variability of solar penetration depths in the Bay of Bengal and its impact on sea surface temperature (SST) during the summer monsoon. Ocean Science, 2021, 17, 871-890.	1.3	4
90	The effect of seasonally and spatially varying chlorophyll on Bay of Bengal surface ocean properties and the South Asian monsoon. Weather and Climate Dynamics, 2020, 1, 635-655.	1.2	4

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91	Seasonal variations in low level flow in the NASA-Ames Mars GCM. Advances in Space Research, 1997, 19, 1261-1265.	1.2	3
92	The role of potential vorticity anomalies in the Somali Jet on Indian Summer Monsoon Intraseasonal Variability. Climate Dynamics, 2018, 50, 4149-4169.	1.7	3
93	FORTE 2.0: a fast, parallel and flexible coupled climate model. Geoscientific Model Development, 2021, 14, 275-293.	1.3	3
94	An investigation into linearity with cumulative emissions of the climate and carbon cycle response in HadCM3LC. Environmental Research Letters, 2016, 11, 065003.	2.2	2
95	Response of the Asian summer Monsoons to a high-latitude thermal forcing: mechanisms and nonlinearities. Climate Dynamics, 2020, 54, 3927-3944.	1.7	2
96	Stratospheric modulation of the Boreal response to Pliocene tropical Pacific sea surface temperatures. Earth and Planetary Science Letters, 2013, 365, 1-6.	1.8	1
97	The Extratropical Linear Step Response to Tropical Precipitation Anomalies and Its Use in Constraining Projected Circulation Changes under Climate Warming. Journal of Climate, 2020, 33, 7217-7231.	1.2	1