Richard Washington

List of Publications by Year
in descending order

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111 papers	7,323 citations	53660 45 h-index	60497 81 g-index
114 all docs	114 docs citations	114 times ranked	6836 citing authors

#	Article	IF	Citations
1	Dust-Storm Source Areas Determined by the Total Ozone Monitoring Spectrometer and Surface Observations. Annals of the American Association of Geographers, 2003, 93, 297-313.	3.0	590
2	North African dust emissions and transport. Earth-Science Reviews, 2006, 79, 73-100.	4.0	551
3	The BodÃ©lÃ© depression: a single spot in the Sahara that provides most of the mineral dust to the Amazon forest. Environmental Research Letters, 2006, 1, 014005.	2.2	278
4	Multiple episodes of aridity in southern Africa since the last interglacial period. Nature, 1997, 388, 154-158.	13.7	227
5	Atmospheric controls on mineral dust emission from the BodÃ©lÃ© Depression, Chad: The role of the low level jet. Geophysical Research Letters, 2005, 32, .	1.5	219
6	African Climate Change: Taking the Shorter Route. Bulletin of the American Meteorological Society, 2006, 87, 1355-1366.	1.7	205
7	Dust and the low-level circulation over the BodÃ©lÃ© Depression, Chad: Observations from BoDEx 2005. Journal of Geophysical Research, 2006, 111, .	3.3	191
8	Atmospheric controls on the annual cycle of North African dust. Journal of Geophysical Research, 2007, 112, .	3.3	190
9	Congo Basin rainfall climatology: can we believe the climate models?. Philosophical Transactions of the Royal Society B: Biological Sciences, 2013, 368, 20120296.	1.8	177
10	Characterizing halfâ€aâ€degree difference: a review of methods for identifying regional climate responses to global warming targets. Wiley Interdisciplinary Reviews: Climate Change, 2017, 8, e457.	3.6	177
11	Optical properties of Saharan dust aerosol and contribution from the coarse mode as measured during the Fennec 2011 aircraft campaign. Atmospheric Chemistry and Physics, 2013, 13, 303-325.	1.9	172
12	Issues in the interpretation of climate model ensembles to inform decisions. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2007, 365, 2163-2177.	1.6	150
13	Mineral dust emission from the BodÃ©lÃ© Depression, northern Chad, during BoDEx 2005. Journal of Geophysical Research, 2007, 112, .	3.3	149
14	Changes in African temperature and precipitation associated with degrees of global warming. Climatic Change, 2013, 117, 859-872.	1.7	149
15	Agent-based social simulation: a method for assessing the impact of seasonal climate forecast applications among smallholder farmers. Agricultural Systems, 2005, 83, 1-26.	3.2	132
16	Circulation anomalies associated with tropical-temperate troughs in southern Africa and the south west Indian Ocean. Climate Dynamics, 1999, 15, 937-951.	1.7	124
17	Meteorology and dust in the central Sahara: Observations from Fennec supersiteâ€1 during the June 2011 Intensive Observation Period. Journal of Geophysical Research D: Atmospheres, 2013, 118, 4069-4089.	1.2	123
18	Extreme wet years over southern Africa: Role of Indian Ocean sea surface temperatures. Journal of Geophysical Research, 2006, 111, .	3.3	113

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19	Chapter 1 Impacts of the Oceans on Climate Change. Advances in Marine Biology, 2009, 56, 1-150.	0.7	110
20	Development of badlands and gullies in the Sneeuberg, Great Karoo, South Africa. Catena, 2003, 50, 165-184.	2.2	109
21	Regional Model Simulations of the BodÃ©lÃ© Low-Level Jet of Northern Chad during the BodÃ©lÃ© Dust Experiment (BoDEx 2005). Journal of Climate, 2008, 21, 995-1012.	1.2	95
22	Future Climate Change of the Subtropical North Atlantic: Implications for the Cloud Forests of Tenerife. Climatic Change, 2004, 65, 103-123.	1.7	93
23	Culture or climate? The relative influences of past processes on the composition of the lowland Congo rainforest. Philosophical Transactions of the Royal Society B: Biological Sciences, 2007, 362, 229-242.	1.8	93
24	Recent observed climate change over the Arabian Peninsula. Journal of Geophysical Research, 2011, 116, .	3.3	93
25	Tropical-temperate links in southern African and Southwest Indian Ocean satellite-derived daily rainfall. International Journal of Climatology, 1999, 19, 1601-1616.	1.5	89
26	Atmospheric dust modeling from meso to global scales with the online NMMB/BSC-Dust model â€“ Part 2: Experimental campaigns in Northern Africa. Atmospheric Chemistry and Physics, 2012, 12, 2933-2958.	1.9	87
27	Multi-agent modelling of climate outlooks and food security on a community garden scheme in Limpopo, South Africa. Philosophical Transactions of the Royal Society B: Biological Sciences, 2005, 360, 2183-2194.	1.8	82
28	Dust as a tipping element: The BodÃ©lÃ© Depression, Chad. Proceedings of the National Academy of Sciences of the United States of America, 2009, 106, 20564-20571.	3.3	82
29	Modelling soil dust aerosol in the BodÃ©lÃ© depression during the BoDEx campaign. Atmospheric Chemistry and Physics, 2006, 6, 4345-4359.	1.9	79
30	Dust-raising in the dustiest place on earth. Geomorphology, 2007, 92, 25-37.	1.1	79
31	Circulation controls on southern African precipitation in coupled models: The role of the Angola Low. Journal of Geophysical Research D: Atmospheres, 2017, 122, 861-877.	1.2	79
32	Water vapour transport associated with tropicalâ€“temperate trough systems over southern Africa and the southwest Indian Ocean. International Journal of Climatology, 2004, 24, 555-568.	1.5	78
33	Brown locust outbreaks and climate variability in southern Africa. Journal of Applied Ecology, 2002, 39, 31-42.	1.9	76
34	Changes in climate extremes in the Arabian Peninsula: analysis of daily data. International Journal of Climatology, 2014, 34, 1329-1345.	1.5	75
35	The impact of convective cold pool outflows on model biases in the Sahara. Geophysical Research Letters, 2013, 40, 1647-1652.	1.5	72
36	Climate variability in central equatorial Africa: Influence from the Atlantic sector. Geophysical Research Letters, 2004, 31, .	1.5	71

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37	Evaluating Climate Models with an African Lens. Bulletin of the American Meteorological Society, 2018, 99, 313-336.	1.7	71
38	Seasonal Forecasting of African Rainfall: Prediction, Responses and Household Food Security. Geographical Journal, 1999, 165, 255.	1.6	59
39	Dust emission and transport mechanisms in the central Sahara: Fennec groundâ€based observations from Bordj Badji Mokhtar, June 2011. Journal of Geophysical Research D: Atmospheres, 2013, 118, 6212-6232.	1.2	59
40	An automated dust detection using SEVIRI: A multiyear climatology of summertime dustiness in the central and western Sahara. Journal of Geophysical Research, 2012, 117, .	3.3	57
41	Advances in understanding mineral dust and boundary layer processes over the Sahara from Fennec aircraft observations. Atmospheric Chemistry and Physics, 2015, 15, 8479-8520.	1.9	57
42	Implications of global warming for the climate of African rainforests. Philosophical Transactions of the Royal Society B: Biological Sciences, 2013, 368, 20120298.	1.8	54
43	United Kingdom and Ireland precipitation variability and the North Atlantic sea-level pressure field. International Journal of Climatology, 2001, 21, 939-959.	1.5	52
44	Meteorological and dust aerosol conditions over the western Saharan region observed at Fennec Supersiteâ€2 during the intensive observation period in June 2011. Journal of Geophysical Research D: Atmospheres, 2013, 118, 8426-8447.	1.2	52
45	A new highâ€resolution central and western Saharan summertime dust source map from automated satellite dust plume tracking. Journal of Geophysical Research D: Atmospheres, 2013, 118, 6981-6995.	1.2	52
46	Detection of a lightning influence on tropical tropospheric ozone. Geophysical Research Letters, 2000, 27, 1639-1642.	1.5	51
47	Estimating aerodynamic roughness over complex surface terrain. Journal of Geophysical Research D: Atmospheres, 2013, 118, 12,948.	1.2	51
48	The low-level jet dust emission mechanism in the central Sahara: Observations from Bordj-Badji Mokhtar during the June 2011 Fennec Intensive Observation Period. Journal of Geophysical Research D: Atmospheres, 2014, 119, 2990-3015.	1.2	44
49	Processâ€based assessment of an ensemble of climate projections for West Africa. Journal of Geophysical Research D: Atmospheres, 2015, 120, 1221-1238.	1.2	44
50	Characterizing the Synoptic Expression of the Angola Low. Journal of Climate, 2018, 31, 7147-7165.	1.2	44
51	Seasonal Maize Forecasting for South Africa and Zimbabwe Derived from an Agroclimatological Model. Journal of Applied Meteorology and Climatology, 2000, 39, 1473-1479.	1.7	43
52	Seasonal Forecasting for Climate Hazards: Prospects and Responses. Natural Hazards, 2001, 23, 171-196.	1.6	41
53	The Fennec Automatic Weather Station (AWS) Network: Monitoring the Saharan Climate System. Journal of Atmospheric and Oceanic Technology, 2013, 30, 709-724.	0.5	39
54	Quantifying particle size and turbulent scale dependence of dust flux in the Sahara using aircraft measurements. Journal of Geophysical Research D: Atmospheres, 2014, 119, 7577-7598.	1.2	35

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55	A Process-Based Assessment of CMIP5 Rainfall in the Congo Basin: The Septemberâ€“November Rainy Season. Journal of Climate, 2018, 31, 7417-7439.	1.2	35
56	Testing the performance of state-of-the-art dust emission schemes using DO4Models field data. Geoscientific Model Development, 2015, 8, 341-362.	1.3	34
57	Systematic Climate Model Rainfall Biases over Southern Africa: Links to Moisture Circulation and Topography. Journal of Climate, 2018, 31, 7533-7548.	1.2	34
58	The spatial and temporal characteristics of TOMS AI over the Tarim Basin, China. Atmospheric Environment, 2009, 43, 1106-1115.	1.9	32
59	Northern hemisphere teleconnection indices and the mass balance of Svalbard glaciers. International Journal of Climatology, 2000, 20, 473-487.	1.5	31
60	What determines perceived value of seasonal climate forecasts? A theoretical analysis. Global Environmental Change, 2011, 21, 209-218.	3.6	31
61	The dynamism of salt crust patterns on playas. Geology, 2015, 43, 31-34.	2.0	31
62	A detailed characterization of the Saharan dust collected during the Fennec campaign inÂ2011: in situ ground-based and laboratory measurements. Atmospheric Chemistry and Physics, 2018, 18, 1023-1043.	1.9	30
63	African Lowâ€Level Jets and Their Importance for Water Vapor Transport and Rainfall. Geophysical Research Letters, 2021, 48, e2020GL090999.	1.5	30
64	The Saharan heat low and moisture transport pathways in the central Saharaâ€”Multiaircraft observations and Africaâ€LAM evaluation. Journal of Geophysical Research D: Atmospheres, 2015, 120, 4417-4442.	1.2	29
65	Arctic oscillation and the interannual variability of dust emissions from the Tarim Basin: a TOMS AI based study. Climate Dynamics, 2010, 35, 511-522.	1.7	26
66	Measurements of windblown dust characteristics and ocean fertilization potential: The ephemeral river valleys of Namibia. Aeolian Research, 2017, 29, 30-41.	1.1	26
67	On the Likelihood of Tropicalâ€“Extratropical Cloud Bands in the South Indian Convergence Zone during ENSO Events. Journal of Climate, 2018, 31, 2797-2817.	1.2	26
68	Convection-Permitting Regional Climate Change Simulations for Understanding Future Climate and Informing Decision-Making in Africa. Bulletin of the American Meteorological Society, 2021, 102, E1206-E1223.	1.7	26
69	Drylines in Southern Africa: Rediscovering the Congo Air Boundary. Journal of Climate, 2019, 32, 8223-8242.	1.2	25
70	Contrasting controls on Congo Basin evaporation at the two rainfall peaks. Climate Dynamics, 2021, 56, 1609-1624.	1.7	25
71	Climateâ€“surfaceâ€“poreâ€water interactions on a salt crusted playa: implications for crust pattern and surface roughness development measured using terrestrial laser scanning. Earth Surface Processes and Landforms, 2016, 41, 738-753.	1.2	24
72	African Climate Change Uncertainty in Perturbed Physics Ensembles: Implications of Global Warming to 4Â°C and Beyond*. Journal of Climate, 2014, 27, 4677-4692.	1.2	23

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73	Climate variability affects water-energy-food infrastructure performance in East Africa. One Earth, 2021, 4, 397-410.	3.6	23
74	Mesoscale modeling of aeolian dust emission during the BoDEx 2005 experiment. Geophysical Research Letters, 2007, 34, .	1.5	22
75	Deep Convection over Africa: Annual Cycle, ENSO, and Trends in the Hotspots. Journal of Climate, 2019, 32, 8791-8811.	1.2	22
76	Climate change in the Congo Basin: processes related to wetting in the Decemberâ€“February dry season. Climate Dynamics, 2019, 53, 3583-3602.	1.7	21
77	African Easterly Jet South: control, maintenance mechanisms and link with Southern subtropical waves. Climate Dynamics, 2020, 54, 1539-1552.	1.7	21
78	Dust detection from groundâ€based observations in the summer global dust maximum: Results from Fennec 2011 and 2012 and implications for modeling and field observations. Journal of Geophysical Research D: Atmospheres, 2015, 120, 897-916.	1.2	20
79	Stronger Local Overturning in Convectiveâ€Permitting Regional Climate Model Improves Simulation of the Subtropical Annual Cycle. Geophysical Research Letters, 2018, 45, 11,334.	1.5	20
80	Tropical Lows in Southern Africa: Tracks, Rainfall Contributions, and the Role of ENSO. Journal of Geophysical Research D: Atmospheres, 2019, 124, 11009-11032.	1.2	18
81	Representation of the Indian Ocean Walker circulation in climate models and links to Kenyan rainfall. International Journal of Climatology, 2021, 41, E616.	1.5	18
82	Quantifying chaos in the atmosphere. Progress in Physical Geography, 2000, 24, 499-514.	1.4	17
83	Intraseasonal variability and atmospheric controls on daily dust occurrence frequency over the central and western Sahara during the boreal summer. Journal of Geophysical Research D: Atmospheres, 2013, 118, 12,915.	1.2	17
84	A 14â€Year Climatology of Saharan Dust Emission Mechanisms Inferred From Automatically Tracked Plumes. Journal of Geophysical Research D: Atmospheres, 2019, 124, 9665-9690.	1.2	17
85	Controls on the Diversity in Climate Model Projections of Early Summer Drying over Southern Africa. Journal of Climate, 2019, 32, 3707-3725.	1.2	13
86	Variability of the Turkana Lowâ€Level Jet in Reanalysis and Models: Implications for Rainfall. Journal of Geophysical Research D: Atmospheres, 2021, 126, e2020JD034154.	1.2	13
87	Evaluation of Evaporation Climatology for the Congo Basin Wet Seasons in 11 Global Climate Models. Journal of Geophysical Research D: Atmospheres, 2020, 125, e2019JD030619.	1.2	13
88	Characteristics of summertime daily rainfall variability over South America and the South Atlantic Convergence Zone. Meteorology and Atmospheric Physics, 2003, 83, 89-108.	0.9	12
89	Satelliteâ€Derived Characteristics of Saharan Cold Pool Outflows During Boreal Summer. Journal of Geophysical Research D: Atmospheres, 2021, 126, e2020JD033387.	1.2	12
90	Future southern African summer rainfall variability related to a southwest Indian Ocean dipole in HadCM3. Geophysical Research Letters, 2008, 35, .	1.5	11

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91	Tracing Future Spring and Summer Drying in Southern Africa to Tropical Lows and the Congo Air Boundary. Journal of Climate, 2020, 33, 6205-6228.	1.2	11
92	A Simple Method to Retrieve 3-Hourly Estimates of Global Tropical and Subtropical Precipitation from International Satellite Cloud Climatology Program (ISCCP) D1 Data. Journal of Atmospheric and Oceanic Technology, 1999, 16, 146-155.	0.5	10
93	Sensitivity of projected climate impacts to climate model weighting: multi-sector analysis in eastern Africa. Climatic Change, 2021, 164, 1.	1.7	10
94	The Limpopo Lowâ€Łevel Jet: Mean Climatology and Role in Water Vapor Transport. Journal of Geophysical Research D: Atmospheres, 2021, 126, e2020JD034364.	1.2	10
95	Extreme Indian Ocean dipole and rainfall variability over Central Africa. International Journal of Climatology, 2022, 42, 5255-5272.	1.5	10
96	Sensitivity of desert dust emissions to model horizontal grid spacing during the BodÃ©lÃ© Dust Experiment 2005. Atmospheric Environment, 2012, 50, 377-380.	1.9	9
97	Evaluating the CMIP5 ensemble in Ethiopia: Creating a reduced ensemble for rainfall and temperature in Northwest Ethiopia and the Awash basin. International Journal of Climatology, 2020, 40, 2964-2985.	1.5	8
98	The precipitation patterns and atmospheric dynamics of the Serengeti National Park. International Journal of Climatology, 2021, 41, E2051.	1.5	8
99	Kenyan Long Rains: A Subseasonal Approach to Process-Based Diagnostics. Journal of Climate, 2021, 34, 3311-3326.	1.2	8
100	On the reconstruction of seasonal oceanic precipitation in the presatellite era. Journal of Geophysical Research, 2005, 110, n/a-n/a.	3.3	7
101	Coupled Climate Model Simulation of Tropicalâ€“Extratropical Cloud Bands over Southern Africa. Journal of Climate, 2020, 33, 8579-8602.	1.2	6
102	Future Changes in the Indian Ocean Walker Circulation and Links to Kenyan Rainfall. Journal of Geophysical Research D: Atmospheres, 2021, 126, e2021JD034585.	1.2	5
103	Observations of the Turkana Jet and the East African Dry Tropics: The RIFTJet Field Campaign. Bulletin of the American Meteorological Society, 2022, 103, E1828-E1842.	1.7	5
104	Transport trajectories of dust originating from the Tarim Basin, China. International Journal of Climatology, 2010, 30, 291-304.	1.5	4
105	Quantifying chaos in the atmosphere. Progress in Physical Geography, 2000, 24, 499-514.	1.4	4
106	Rainfall in uncoupled and coupled versions of the Met Office Unified Model over Central Africa: Investigation of processes during the Septemberâ€“November rainy season. International Journal of Climatology, 2022, 42, 6311-6331.	1.5	4
107	Assessment of the unified model in reproducing West African precipitation and temperature climatology. Theoretical and Applied Climatology, 2022, 148, 779-794.	1.3	3
108	Atmospheric Controls on Mineral Dust Emission From the Etosha Pan, Namibia: Observations From the CLARIFYâ€2016 Field Campaign. Journal of Geophysical Research D: Atmospheres, 2021, 126, e2021JD034746.	1.2	2

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109	Climate outlooks for water management adaptation to climate change in the middle east. Developments in Water Science, 2003, 50, 335-348.	0.1	1
110	The Impacts of the Oceans on Climate Change. , 2008, , .		1
111	Influence of orography upon summertime lowâ€level jet dust emission in the central and western Sahara. Journal of Geophysical Research D: Atmospheres, 0, , .	1.2	1