Douglas Maraun

List of Publications by Year
in descending order

70 papers	8,075 citations	81900 39 h-index	95266 68 g-index
76 all docs	76 docs citations	76 times ranked	6839 citing authors

#	Article	IF	Citations
1	Precipitation downscaling under climate change: Recent developments to bridge the gap between dynamical models and the end user. Reviews of Geophysics, 2010, 48, .	23.0	1,256
2	A typology of compound weather and climate events. Nature Reviews Earth & Environment, 2020, 1, 333-347.	29.7	536
3	Bias Correction, Quantile Mapping, and Downscaling: Revisiting the Inflation Issue. Journal of Climate, 2013, 26, 2137-2143.	3.2	493
4	Bias Correcting Climate Change Simulations - a Critical Review. Current Climate Change Reports, 2016, 2, 211-220.	8.6	484
5	Cross wavelet analysis: significance testing and pitfalls. Nonlinear Processes in Geophysics, 2004, 11, 505-514.	1.3	455
6	Towards process-informed bias correction of climate change simulations. Nature Climate Change, 2017, 7, 764-773.	18.8	329
7	Storylines: an alternative approach to representing uncertainty in physical aspects of climate change. Climatic Change, 2018, 151, 555-571.	3.6	317
8	Higher probability of compound flooding from precipitation and storm surge in Europe under anthropogenic climate change. Science Advances, 2019, 5, eaaw5531.	10.3	239
9	Regional climate downscaling over Europe: perspectives from the EURO-CORDEX community. Regional Environmental Change, 2020, 20, 1.	2.9	227
10	Nonstationarities of regional climate model biases in European seasonal mean temperature and precipitation sums. Geophysical Research Letters, 2012, 39, .	4.0	210
11	Multivariate statistical modelling of compound events via pair-copula constructions: analysis of floods in Ravenna (Italy). Hydrology and Earth System Sciences, 2017, 21, 2701-2723.	4.9	206
12	A first-of-its-kind multi-model convection permitting ensemble for investigating convective phenomena over Europe and the Mediterranean. Climate Dynamics, 2020, 55, 3-34.	3.8	176
13	Tempting long-memory - on the interpretation of DFA results. Nonlinear Processes in Geophysics, 2004, 11, 495-503.	1.3	167
14	<scp>VALUE</scp>: A framework to validate downscaling approaches for climate change studies. Earth's Future, 2015, 3, 1-14.	6.3	167
15	An intercomparison of a large ensemble of statistical downscaling methods over Europe: Results from the VALUE perfect predictor crossâ€validation experiment. International Journal of Climatology, 2019, 39, 3750-3785.	3.5	164
16	Nonstationary Gaussian processes in wavelet domain: Synthesis, estimation, and significance testing. Physical Review E, 2007, 75, 016707.	2.1	152
17	Characterisation of extreme winter precipitation in Mediterranean coastal sites and associated anomalous atmospheric circulation patterns. Natural Hazards and Earth System Sciences, 2010, 10, 1037-1050.	3.6	143
18	The first multi-model ensemble of regional climate simulations at kilometer-scale resolution, part I: evaluation of precipitation. Climate Dynamics, 2021, 57, 275-302.	3.8	114

#	Article	IF	Citations
19	Crucial role of Black Sea warming in amplifying the 2012 Krymsk precipitation extreme. Nature Geoscience, 2015, 8, 615-619.	12.9	111
20	What drives high flow events in the Swiss Alps? Recent developments in wavelet spectral analysis and their application to hydrology. Advances in Water Resources, 2007, 30, 2511-2525.	3.8	106
21	Increased probability of compound long-duration dry and hot events in Europe during summer (1950â€“2013). Environmental Research Letters, 2019, 14, 094006.	5.2	103
22	When will trends in European mean and heavy daily precipitation emerge?. Environmental Research Letters, 2013, 8, 014004.	5.2	100
23	United Kingdom daily precipitation intensity: improved early data, error estimates and an update from 2000 to 2006. International Journal of Climatology, 2008, 28, 833-842.	3.5	94
24	Epochs of phase coherence between El NiÃ±o/Southern Oscillation and Indian monsoon. Geophysical Research Letters, 2005, 32, .	4.0	88
25	Soil Moisture Drought in Europe: A Compound Event of Precipitation and Potential Evapotranspiration on Multiple Time Scales. Journal of Hydrometeorology, 2018, 19, 1255-1271.	1.9	81
26	More meteorological events that drive compound coastal flooding are projected under climate change. Communications Earth & Environment, 2020, 1, 47.	6.8	78
27	Rising Mediterranean Sea Surface Temperatures Amplify Extreme Summer Precipitation in Central Europe. Scientific Reports, 2016, 6, 32450.	3.3	72
28	Uncertainty in gridded precipitation products: Influence of station density, interpolation method and grid resolution. International Journal of Climatology, 2019, 39, 3717-3729.	3.5	71
29	Comparison of statistical downscaling methods with respect to extreme events over Europe: Validation results from the perfect predictor experiment of the COST Action VALUE. International Journal of Climatology, 2019, 39, 3846-3867.	3.5	64
30	A combined statistical bias correction and stochastic downscaling method for precipitation. Hydrology and Earth System Sciences, 2017, 21, 1693-1719.	4.9	62
31	Testing bias adjustment methods for regional climate change applications under observational uncertainty and resolution mismatch. Atmospheric Science Letters, 2020, 21, e978.	1.9	59
32	Comparison of GCMâ€•and RCMâ€simulated precipitation following stochastic postprocessing. Journal of Geophysical Research D: Atmospheres, 2014, 119, 11,040.	3.3	56
33	Stochastic Model Output Statistics for Bias Correcting and Downscaling Precipitation Including Extremes. Journal of Climate, 2014, 27, 6940-6959.	3.2	52
34	The influence of synoptic airflow on UK daily precipitation extremes. Part I: Observed spatio-temporal relationships. Climate Dynamics, 2011, 36, 261-275.	3.8	51
35	Statistical downscaling skill under present climate conditions: A synthesis of the VALUE perfect predictor experiment. International Journal of Climatology, 2019, 39, 3692-3703.	3.5	51
36	The VALUE perfect predictor experiment: Evaluation of temporal variability. International Journal of Climatology, 2019, 39, 3786-3818.	3.5	47

#	Article	IF	Citations
37	The annual cycle of heavy precipitation across the United Kingdom: a model based on extreme value statistics. International Journal of Climatology, 2009, 29, 1731-1744.	3.5	44
38	Modelling seasonality in extreme precipitation. European Physical Journal: Special Topics, 2009, 174, 99-111.	2.6	43
39	Synoptic airflow and UK daily precipitation extremes. Extremes, 2010, 13, 133-153.	1.0	42
40	Cosmic rays, carbon dioxide, and climate. Eos, 2004, 85, 38.	0.1	40
41	The representation of location by a regional climate model in complex terrain. Hydrology and Earth System Sciences, 2015, 19, 3449-3456.	4.9	37
42	The influence of synoptic airflow on UK daily precipitation extremes. Part II: regional climate model and E-OBS data validation. Climate Dynamics, 2012, 39, 287-301.	3.8	35
43	Evidence for added value of convectionâ€permitting models for studying changes in extreme precipitation. Journal of Geophysical Research D: Atmospheres, 2015, 120, 12500-12513.	3.3	35
44	Cross-validation of bias-corrected climate simulations is misleading. Hydrology and Earth System Sciences, 2018, 22, 4867-4873.	4.9	34
45	Processâ€based evaluation of the VALUE perfect predictor experiment of statistical downscaling methods. International Journal of Climatology, 2019, 39, 3868-3893.	3.5	32
46	Extreme Precipitation in an Atmosphere General Circulation Model: Impact of Horizontal and Vertical Model Resolutions. Journal of Climate, 2015, 28, 1184-1205.	3.2	30
47	Improving Antarctic Total Ozone Projections by a Process-Oriented Multiple Diagnostic Ensemble Regression. Journals of the Atmospheric Sciences, 2013, 70, 3959-3976.	1.7	27
48	Validation of spatial variability in downscaling results from the VALUE perfect predictor experiment. International Journal of Climatology, 2019, 39, 3819-3845.	3.5	27
49	Event-Based Landslide Modeling in the Styrian Basin, Austria: Accounting for Time-Varying Rainfall and Land Cover. Geosciences (Switzerland), 2020, 10, 217.	2.2	27
50	Challenges to link climate change data provision and user needs: Perspective from the COSTâ€action VALUE. International Journal of Climatology, 2019, 39, 3704-3716.	3.5	23
51	Adjusting climate model bias for agricultural impact assessment: How to cut the mustard. Climate Services, 2019, 13, 65-69.	2.5	22
52	A severe landslide event in the Alpine foreland under possible future climate and land-use changes. Communications Earth & Environment, 2022, 3, .	6.8	22
53	How well do regional climate models simulate the spatial dependence of precipitation? An application of pairâ€copula constructions. Journal of Geophysical Research D: Atmospheres, 2015, 120, 2624-2646.	3.3	21
54	Emerging new climate extremes over Europe. Climate Dynamics, 2022, 58, 487-501.	3.8	20

#	Article	IF	Citations
55	Climate projections for glacier change modelling over the Himalayas. International Journal of Climatology, 2020, 40, 1738-1754.	3.5	18
56	Dynamics in Complex Systems. European Review, 2009, 17, 357-370.	0.7	14
57	Regional Climate Model Biases, Their Dependence on Synoptic Circulation Biases and the Potential for Bias Adjustment: A Processâ€Oriented Evaluation of the Austrian Regional Climate Projections. Journal of Geophysical Research D: Atmospheres, 2021, 126, e2020JD032824.	3.3	14
58	Reply to â€œComment on â€˜Bias Correction, Quantile Mapping, and Downscaling: Revisiting the Inflation Issueâ€™â€•. Journal of Climate, 2014, 27, 1821-1825.	3.2	11
59	Validation of the present day annual cycle in heavy precipitation over the British Islands simulated by 14 RCMs. Journal of Geophysical Research, 2012, 117, .	3.3	10
60	How Hard is the Euro Area Core? An Evaluation of Growth Cycles Using Wavelet Analysis. SSRN Electronic Journal, 0, , .	0.4	10
61	A conceptual ENSO model under realistic noise forcing. Nonlinear Processes in Geophysics, 2006, 13, 275-285.	1.3	8
62	Downscaling of climate change scenarios for a high-resolution, site-specific assessment of drought stress risk for two viticultural regions with heterogeneous landscapes. Earth System Dynamics, 2022, 13, 911-934.	7.1	8
63	Stochastic downscaling of gridded precipitation to spatially coherent subgrid precipitation fields using a transformed Gaussian model. International Journal of Climatology, 2022, 42, 6126-6147.	3.5	7
64	IDENTIFICATION OF RATE CONSTANTS AND NONOBSERVABLE ABSORPTION SPECTRA IN NONLINEAR BIOCHEMICAL REACTION DYNAMICS. International Journal of Bifurcation and Chaos in Applied Sciences and Engineering, 2004, 14, 2081-2092.	1.7	5
65	Compilation of a guideline providing comprehensive information on freely available climate change data and facilitating their efficient retrieval. Climate Services, 2020, 19, 100179.	2.5	5
66	Projected Changeâ€”Models and Methodology. Regional Climate Studies, 2015, , 189-215.	1.2	5
67	Changes in the annual cycle of heavy precipitation across the British Isles within the 21st century. Environmental Research Letters, 2012, 7, 044029.	5.2	4
68	Reply [to â€œCosmic rays, carbon dioxide, and climateâ€]. Eos, 2004, 85, 511-511.	0.1	3
69	Reply to â€œComment on â€˜Bias Correction, Quantile Mapping, and Downscaling: Revisiting the Inflation Issueâ€™â€•. Journal of Climate, 2016, 29, 8669-8671.	3.2	2
70	Continuous wavelet spectral analysis of climate dynamics. World Scientific Lecture Notes in Complex Systems, 2007, , 325-346.	0.1	0