Gab Abramowitz

List of Publications by Year
in descending order

66 papers	4,361 citations	117571 34 h-index	114418 63 g-index
92 all docs	92 docs citations	92 times ranked	6026 citing authors

#	Article	IF	Citations
1	Taking climate model evaluation to the next level. Nature Climate Change, 2019, 9, 102-110.	8.1	407
2	Towards a comprehensive assessment of model structural adequacy. Water Resources Research, 2012, 48, .	1.7	317
3	A framework for benchmarking land models. Biogeosciences, 2012, 9, 3857-3874.	1.3	267
4	Robust Future Changes in Meteorological Drought in <scp>CMIP6</scp> Projections Despite Uncertainty in Precipitation. Geophysical Research Letters, 2020, 47, e2020GL087820.	1.5	239
5	The Plumbing of Land Surface Models: Benchmarking Model Performance. Journal of Hydrometeorology, 2015, 16, 1425-1442.	0.7	191
6	Diagnosing errors in a land surface model (CABLE) in the time and frequency domains. Journal of Geophysical Research, 2011, 116, .	3.3	172
7	Importance of background climate in determining impact of land-cover change on regional climate. Nature Climate Change, 2011, 1, 472-475.	8.1	168
8	A test of an optimal stomatal conductance scheme within the CABLE land surface model. Geoscientific Model Development, 2015, 8, 431-452.	1.3	156
9	Evaluating the Performance of Land Surface Models. Journal of Climate, 2008, 21, 5468-5481.	1.2	154
10	Climate model dependence and the replicate Earth paradigm. Climate Dynamics, 2013, 41, 885-900.	1.7	142
11	Are we unnecessarily constraining the agility of complex process-based models?. Water Resources Research, 2015, 51, 716-728.	1.7	123
12	Selecting a climate model subset to optimise key ensemble properties. Earth System Dynamics, 2018, 9, 135-151.	2.7	103
13	ESD Reviews: Model dependence in multi-model climate ensembles: weighting, sub-selection and out-of-sample testing. Earth System Dynamics, 2019, 10, 91-105.	2.7	92
14	Climate model simulated changes in temperature extremes due to land cover change. Journal of Geophysical Research, 2012, 117, .	3.3	88
15	Land surface models systematically overestimate the intensity, duration and magnitude of seasonal-scale evaporative droughts. Environmental Research Letters, 2016, 11, 104012.	2.2	88
16	Towards a benchmark for land surface models. Geophysical Research Letters, 2005, 32, n/a-n/a.	1.5	80
17	Optimally choosing small ensemble members to produce robust climate simulations. Environmental Research Letters, 2013, 8, 044050.	2.2	79
18	Towards a public, standardized, diagnostic benchmarking system for land surface models. Geoscientific Model Development, 2012, 5, 819-827.	1.3	74

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19	Examining soil carbon uncertainty in a global model: response of microbial decomposition to temperature, moisture and nutrient limitation. Biogeosciences, 2013, 10, 7095-7108.	1.3	69
20	Systematic Bias in Land Surface Models. Journal of Hydrometeorology, 2007, 8, 989-1001.	0.7	68
21	Evaluating CMIP5 Model Agreement for Multiple Drought Metrics. Journal of Hydrometeorology, 2018, 19, 969-988.	0.7	59
22	Plant profit maximization improves predictions of European forest responses to drought. New Phytologist, 2020, 226, 1638-1655.	3.5	59
23	Climate Model Dependence and the Ensemble Dependence Transformation of CMIP Projections. Journal of Climate, 2015, 28, 2332-2348.	1.2	55
24	Multi-model ensemble projections of future extreme temperature change using a statistical downscaling method in south eastern Australia. Climatic Change, 2016, 138, 85-98.	1.7	55
25	Toward a model space and model independence metric. Geophysical Research Letters, 2008, 35, .	1.5	52
26	Implementation of an optimal stomatal conductance scheme in the Australian Community Climate Earth Systems Simulator (ACCESS1.3b). Geoscientific Model Development, 2015, 8, 3877-3889.	1.3	51
27	Influence of Leaf Area Index Prescriptions on Simulations of Heat, Moisture, and Carbon Fluxes. Journal of Hydrometeorology, 2014, 15, 489-503.	0.7	50
28	Derived Optimal Linear Combination Evapotranspiration (DOLCE): aÂglobal gridded synthesis ET estimate. Hydrology and Earth System Sciences, 2018, 22, 1317-1336.	1.9	49
29	Challenges and opportunities in land surface modelling of savanna ecosystems. Biogeosciences, 2017, 14, 4711-4732.	1.3	45
30	The Plumbing of Land Surface Models: Is Poor Performance a Result of Methodology or Data Quality?. Journal of Hydrometeorology, 2016, 17, 1705-1723.	0.7	43
31	A daily 25â€‰km short-latency rainfall product for data-scarce regions based on the integration of the Global Precipitation Measurement mission rainfall and multiple-satellite soil moisture products. Hydrology and Earth System Sciences, 2020, 24, 2687-2710.	1.9	43
32	Drought Influences the Accuracy of Simulated Ecosystem Fluxes: A Model-Data Meta-analysis for Mediterranean Oak Woodlands. Ecosystems, 2013, 16, 749-764.	1.6	42
33	Ranking climate models by performance using actual values and anomalies: Implications for climate change impact assessments. Geophysical Research Letters, 2010, 37, .	1.5	40
34	Weighting climate model ensembles for mean and variance estimates. Climate Dynamics, 2015, 45, 3169-3181.	1.7	39
35	Model independence in multi-model ensemble prediction. Australian Meteorological Magazine, 2010, 59, 3-6.	0.4	37
36	Linear Optimal Runoff Aggregate (LORA): a global gridded synthesis runoff product. Hydrology and Earth System Sciences, 2019, 23, 851-870.	1.9	35

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37	Modelling evapotranspiration during precipitation deficits: identifying critical processes in a land surface model. Hydrology and Earth System Sciences, 2016, 20, 2403-2419.	1.9	33
38	A novel method for diagnosing seasonal to inter-annual surface ocean carbon dynamics from bottle data using neural networks. Biogeosciences, 2013, 10, 4319-4340.	1.3	32
39	Response of microbial decomposition to spin-up explains CMIP5 soil carbon range until 2100. Geoscientific Model Development, 2014, 7, 2683-2692.	1.3	32
40	A model inter-comparison study to examine limiting factors in modelling Australian tropical savannas. Biogeosciences, 2016, 13, 3245-3265.	1.3	32
41	Neural Error Regression Diagnosis (NERD): A Tool for Model Bias Identification and Prognostic Data Assimilation. Journal of Hydrometeorology, 2006, 7, 160-177.	0.7	31
42	Which are the most important parameters for modelling carbon assimilation in boreal Norway spruce under elevated [CO2] and temperature conditions?. Tree Physiology, 2013, 33, 1156-1176.	1.4	31
43	A new constraint on global airâ€sea CO₂ fluxes using bottle carbon data. Geophysical Research Letters, 2013, 40, 1594-1599.	1.5	29
44	Sensitivity of net ecosystem exchange and heterotrophic respiration to parameterization uncertainty. Journal of Geophysical Research D: Atmospheres, 2013, 118, 1640-1651.	1.2	25
45	On the information content of surface meteorology for downward atmospheric longâ€wave radiation synthesis. Geophysical Research Letters, 2012, 39, .	1.5	24
46	Does predictability of fluxes vary between FLUXNET sites?. Biogeosciences, 2018, 15, 4495-4513.	1.3	21
47	Calibrating Climate Model Ensembles for Assessing Extremes in a Changing Climate. Journal of Geophysical Research D: Atmospheres, 2018, 123, 5988-6004.	1.2	19
48	The CSIRO Mk3L climate system model v1.0 coupled to the CABLE land surface scheme v1.4b: evaluation of the control climatology. Geoscientific Model Development, 2011, 4, 1115-1131.	1.3	18
49	Conserving Landâ€"Atmosphere Synthesis Suite (CLASS). Journal of Climate, 2020, 33, 1821-1844.	1.2	18
50	On the generation of climate model ensembles. Climate Dynamics, 2014, 43, 2297-2308.	1.7	17
51	Ensemble optimisation, multiple constraints and overconfidence: a case study with future Australian precipitation change. Climate Dynamics, 2019, 53, 1581-1596.	1.7	17
52	Robust historical evapotranspiration trends across climate regimes. Hydrology and Earth System Sciences, 2021, 25, 3855-3874.	1.9	16
53	FluxnetLSM R package (v1.0): a community tool for processing FLUXNET data for use in land surface modelling. Geoscientific Model Development, 2017, 10, 3379-3390.	1.3	14
54	On the predictability of land surface fluxes from meteorological variables. Geoscientific Model Development, 2018, 11, 195-212.	1.3	13

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55	How representative are FLUXNET measurements of surface fluxes during temperature extremes?. Biogeosciences, 2019, 16, 1829-1844.	1.3	11
56	Evaluating Precipitation Datasets Using Surface Water and Energy Budget Closure. Journal of Hydrometeorology, 2020, 21, 989-1009.	0.7	11
57	A flux tower dataset tailored for land model evaluation. Earth System Science Data, 2022, 14, 449-461.	3.7	11
58	New Forest Aboveground Biomass Maps of China Integrating Multiple Datasets. Remote Sensing, 2021, 13, 2892.	1.8	10
59	Toward a Robust, Impactâ€Based, Predictive Drought Metric. Water Resources Research, 2022, 58, .	1.7	10
60	Disentangling residence time and temperature sensitivity of microbial decomposition in a global soil carbon model. Biogeosciences, 2014, 11, 6999-7008.	1.3	7
61	Evaluation of the CABLEv2.3.4 Land Surface Model Coupled to NUâ€WRFv3.9.1.1 in Simulating Temperature and Precipitation Means and Extremes Over CORDEX AustralAsia Within a WRF Physics Ensemble. Journal of Advances in Modeling Earth Systems, 2019, 11, 4466-4488.	1.3	7
62	Reconciling historical changes in the hydrological cycle over land. Npj Climate and Atmospheric Science, 2022, 5, .	2.6	7
63	How Well Can Land-Surface Models Represent the Diurnal Cycle of Turbulent Heat Fluxes?. Journal of Hydrometeorology, 2021, 22, 77-94.	0.7	6
64	Examining the role of environmental memory in the predictability of carbon and water fluxes across Australian ecosystems. Biogeosciences, 2022, 19, 1913-1932.	1.3	6
65	Global and regional coupled climate sensitivity to the parameterization of rainfall interception. Climate Dynamics, 2011, 37, 171-186.	1.7	4
66	What are the limits to statistical error correction in land surface schemes when projecting the future?. Geophysical Research Letters, 2005, 32, n/a-n/a.	1.5	3