Emanuel Dutra

List of Publications by Year
in descending order

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82 papers	7,456 citations	70961 41 h-index	60497 81 g-index
137 all docs	137 docs citations	137 times ranked	8121 citing authors

#	Article	IF	Citations
1	ERA5-Land: a state-of-the-art global reanalysis dataset for land applications. Earth System Science Data, 2021, 13, 4349-4383.	3.7	1,083
2	ERA-Interim/Land: a global land surface reanalysis data set. Hydrology and Earth System Sciences, 2015, 19, 389-407.	1.9	483
3	EC-Earth. Bulletin of the American Meteorological Society, 2010, 91, 1357-1364.	1.7	474
4	GloFAS â€“ global ensemble streamflow forecasting and flood early warning. Hydrology and Earth System Sciences, 2013, 17, 1161-1175.	1.9	388
5	Evaluation of forest snow processes models (SnowMIP2). Journal of Geophysical Research, 2009, 114, .	3.3	290
6	ERA-5 and ERA-Interim driven ISBA land surface model simulations: which one performs better?. Hydrology and Earth System Sciences, 2018, 22, 3515-3532.	1.9	243
7	An Improved Snow Scheme for the ECMWF Land Surface Model: Description and Offline Validation. Journal of Hydrometeorology, 2010, 11, 899-916.	0.7	221
8	Deriving global flood hazard maps of fluvial floods through a physical model cascade. Hydrology and Earth System Sciences, 2012, 16, 4143-4156.	1.9	175
9	Stochastic representations of model uncertainties at ECMWF: state of the art and future vision. Quarterly Journal of the Royal Meteorological Society, 2017, 143, 2315-2339.	1.0	170
10	A global water resources ensemble of hydrological models: the eartH2Observe Tier-1 dataset. Earth System Science Data, 2017, 9, 389-413.	3.7	169
11	Global evaluation of runoff from 10 state-of-the-art hydrological models. Hydrology and Earth System Sciences, 2017, 21, 2881-2903.	1.9	146
12	Evaluation of global precipitation data sets over the Iberian Peninsula. Journal of Geophysical Research, 2011, 116, .	3.3	144
13	Evaluation of snow depth and snow cover over the Tibetan Plateau in global reanalyses using in situ and satellite remote sensing observations. Cryosphere, 2019, 13, 2221-2239.	1.5	144
14	Toward Global Drought Early Warning Capability: Expanding International Cooperation for the Development of a Framework for Monitoring and Forecasting. Bulletin of the American Meteorological Society, 2013, 94, 776-785.	1.7	142
15	The credibility challenge for global fluvial flood risk analysis. Environmental Research Letters, 2016, 11, 094014.	2.2	139
16	The 2010â€“2011 drought in the Horn of Africa in ECMWF reanalysis and seasonal forecast products. International Journal of Climatology, 2013, 33, 1720-1729.	1.5	119
17	ESM-SnowMIP: assessing snow models and quantifying snow-related climate feedbacks. Geoscientific Model Development, 2018, 11, 5027-5049.	1.3	119
18	Natural land carbon dioxide exchanges in the ECMWF integrated forecasting system: Implementation and offline validation. Journal of Geophysical Research D: Atmospheres, 2013, 118, 5923-5946.	1.2	113

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19	Comparison of different evaporation estimates over the African continent. Hydrology and Earth System Sciences, 2014, 18, 193-212.	1.9	106
20	On the contribution of lakes in predicting near-surface temperature in a global weather forecasting model. Tellus, Series A: Dynamic Meteorology and Oceanography, 2022, 64, 15829.	0.8	103
21	Satellite and In Situ Observations for Advancing Global Earth Surface Modelling: A Review. Remote Sensing, 2018, 10, 2038.	1.8	95
22	Analysis of the water level dynamics simulated by a global river model: A case study in the Amazon River. Water Resources Research, 2012, 48, .	1.7	94
23	Forecasting droughts in East Africa. Hydrology and Earth System Sciences, 2014, 18, 611-620.	1.9	93
24	Seasonal forecasts of droughts in African basins using the Standardized Precipitation Index. Hydrology and Earth System Sciences, 2013, 17, 2359-2373.	1.9	84
25	Global forecasting of thermal health hazards: the skill of probabilistic predictions of the Universal Thermal Climate Index (UTCI). International Journal of Biometeorology, 2015, 59, 311-323.	1.3	79
26	A revised land hydrology in the ECMWF model: a step towards daily water flux prediction in a fullyâ€closed water cycle. Hydrological Processes, 2011, 25, 1046-1054.	1.1	77
27	Comparison of drought indicators derived from multiple data sets over Africa. Hydrology and Earth System Sciences, 2014, 18, 1625-1640.	1.9	72
28	Water Balance in the Amazon Basin from a Land Surface Model Ensemble. Journal of Hydrometeorology, 2014, 15, 2586-2614.	0.7	66
29	Hydrological drought forecasting and skill assessment for the Limpopo River basin, southern Africa. Hydrology and Earth System Sciences, 2015, 19, 1695-1711.	1.9	66
30	Verification of Landâ€“Atmosphere Coupling in Forecast Models, Reanalyses, and Land Surface Models Using Flux Site Observations. Journal of Hydrometeorology, 2018, 19, 375-392.	0.7	66
31	The synergy between drought and extremely hot summers in the Mediterranean. Environmental Research Letters, 2019, 14, 014011.	2.2	60
32	Global meteorological drought â€“ Part 2: Seasonal forecasts. Hydrology and Earth System Sciences, 2014, 18, 2669-2678.	1.9	59
33	Impact of land-surface initialization on sub-seasonal to seasonal forecasts over Europe. Climate Dynamics, 2016, 47, 919-935.	1.7	59
34	Complexity of Snow Schemes in a Climate Model and Its Impact on Surface Energy and Hydrology. Journal of Hydrometeorology, 2012, 13, 521-538.	0.7	57
35	Assimilation of surface albedo and vegetation states from satellite observations and their impact on numerical weather prediction. Remote Sensing of Environment, 2015, 163, 111-126.	4.6	57
36	Impact of springtime Himalayanâ€“Tibetan Plateau snowpack on the onset of the Indian summer monsoon in coupled seasonal forecasts. Climate Dynamics, 2016, 47, 2709-2725.	1.7	53

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37	The potential value of seasonal forecasts in a changing climate in southern Africa. Hydrology and Earth System Sciences, 2014, 18, 1525-1538.	1.9	51
38	Cold Bias of ERA5 Summertime Daily Maximum Land Surface Temperature over Iberian Peninsula. Remote Sensing, 2019, 11, 2570.	1.8	49
39	Landâ€atmosphere coupling associated with snow cover. Geophysical Research Letters, 2011, 38, .	1.5	48
40	ERAâ€40 reanalysis hydrological applications in the characterization of regional drought. Geophysical Research Letters, 2008, 35, .	1.5	47
41	Drought and food security â€“ Improving decision-support via new technologies and innovative collaboration. Global Food Security, 2015, 4, 51-55.	4.0	46
42	Improving Weather Predictability by Including Land Surface Model Parameter Uncertainty. Monthly Weather Review, 2016, 144, 1551-1569.	0.5	44
43	Seasonal predictions of agro-meteorological drought indicators for the Limpopo basin. Hydrology and Earth System Sciences, 2015, 19, 2577-2586.	1.9	43
44	Technical Note: Comparing and ranking soil drought indices performance over Europe, through remote-sensing of vegetation. Hydrology and Earth System Sciences, 2010, 14, 271-277.	1.9	41
45	Snow cover sensitivity to horizontal resolution, parameterizations, and atmospheric forcing in a land surface model. Journal of Geophysical Research, 2011, 116, .	3.3	41
46	Monitoring and Forecasting the Impact of the 2018 Summer Heatwave on Vegetation. Remote Sensing, 2019, 11, 520.	1.8	40
47	Advancing land surface model development with satellite-based Earth observations. Hydrology and Earth System Sciences, 2017, 21, 2483-2495.	1.9	39
48	Scientific and Human Errors in a Snow Model Intercomparison. Bulletin of the American Meteorological Society, 2021, 102, E61-E79.	1.7	38
49	Assessment of precipitation error propagation in multi-model global water resource reanalysis. Hydrology and Earth System Sciences, 2019, 23, 1973-1994.	1.9	37
50	Global meteorological drought â€“ Part 1: Probabilistic monitoring. Hydrology and Earth System Sciences, 2014, 18, 2657-2667.	1.9	36
51	Soil temperature at ECMWF: An assessment using groundâ€based observations. Journal of Geophysical Research D: Atmospheres, 2015, 120, 1361-1373.	1.2	33
52	Eurasian snow depth in long-term climate reanalyses. Cryosphere, 2017, 11, 923-935.	1.5	33
53	Long Term Global Surface Soil Moisture Fields Using an SMOS-Trained Neural Network Applied to AMSR-E Data. Remote Sensing, 2016, 8, 959.	1.8	32
54	Impact of a Multiâ€Layer Snow Scheme on Nearâ€Surface Weather Forecasts. Journal of Advances in Modeling Earth Systems, 2019, 11, 4687-4710.	1.3	32

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55	Environmental Lapse Rate for Highâ€Resolution Land Surface Downscaling: An Application to ERA5. Earth and Space Science, 2020, 7, e2019EA000984.	1.1	32
56	Assessment of a full-field initialized decadal climate prediction system with the CMIP6 version of EC-Earth. Earth System Dynamics, 2021, 12, 173-196.	2.7	32
57	MSWX: Global 3-Hourly 0.1Â° Bias-Corrected Meteorological Data Including Near-Real-Time Updates and Forecast Ensembles. Bulletin of the American Meteorological Society, 2022, 103, E710-E732.	1.7	30
58	A biogenic CO₂ flux adjustment scheme for the mitigation of large-scale biases in global atmospheric CO₂ analyses and forecasts. Atmospheric Chemistry and Physics, 2016, 16, 10399-10418.	1.9	27
59	Realâ€time correction of ERAâ€Interim monthly rainfall. Geophysical Research Letters, 2013, 40, 3750-3755.	1.5	25
60	Role of vegetation in representing land surface temperature in the CHTESSEL (CY45R1) and SURFEX-ISBA (v8.1) land surface models: a case study over Iberia. Geoscientific Model Development, 2020, 13, 3975-3993.	1.3	25
61	Building a Multimodel Flood Prediction System with the TIGGE Archive. Journal of Hydrometeorology, 2016, 17, 2923-2940.	0.7	23
62	ECLand: The ECMWF Land Surface Modelling System. Atmosphere, 2021, 12, 723.	1.0	23
63	Circulation weather types as a tool in atmospheric, climate, and environmental research. Frontiers in Environmental Science, 2015, 3, .	1.5	22
64	On the numerical stability of surfaceâ€“atmosphere coupling in weather and climate models. Geoscientific Model Development, 2017, 10, 977-989.	1.3	21
65	Robustness of Process-Based versus Data-Driven Modeling in Changing Climatic Conditions. Journal of Hydrometeorology, 2020, 21, 1929-1944.	0.7	21
66	The extreme forecast index at the seasonal scale. Atmospheric Science Letters, 2013, 14, 256-262.	0.8	18
67	Data assimilation for continuous global assessment of severe conditions over terrestrial surfaces. Hydrology and Earth System Sciences, 2020, 24, 4291-4316.	1.9	18
68	Upgrading Landâ€Cover and Vegetation Seasonality in the ECMWF Coupled System: Verification With FLUXNET Sites, METEOSAT Satellite Land Surface Temperatures, and ERA5 Atmospheric Reanalysis. Journal of Geophysical Research D: Atmospheres, 2021, 126, e2020JD034163.	1.2	17
69	Modeling Surface Runoff and Water Fluxes over Contrasted Soils in the Pastoral Sahel: Evaluation of the ALMIP2 Land Surface Models over the Gourma Region in Mali. Journal of Hydrometeorology, 2017, 18, 1847-1866.	0.7	15
70	Snow cover duration trends observed at sites and predicted by multiple models. Cryosphere, 2020, 14, 4687-4698.	1.5	14
71	Streamflows over a West African Basin from the ALMIP2 Model Ensemble. Journal of Hydrometeorology, 2017, 18, 1831-1845.	0.7	13
72	Sub-seasonal to Seasonal Prediction of Weather Extremes. , 2019, , 365-386.		13

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73	Seasonal Drought Forecasting for Latin America Using the ECMWF S4 Forecast System. Climate, 2018, 6, 48.	1.2	10
74	Sensitivity of Surface Fluxes in the ECMWF Land Surface Model to the Remotely Sensed Leaf Area Index and Root Distribution: Evaluation with Tower Flux Data. Atmosphere, 2020, 11, 1362.	1.0	8
75	Integrating Reanalysis and Satellite Cloud Information to Estimate Surface Downward Long-Wave Radiation. Remote Sensing, 2022, 14, 1704.	1.8	8
76	Speedâ€up of the Madeira tip jets in the ERA5 climate highlights the decadal variability of the Atlantic subtropics. Quarterly Journal of the Royal Meteorological Society, 2021, 147, 679-690.	1.0	7
77	Spring snow albedo feedback over northern Eurasia: Comparing in situ measurements with reanalysis products. Cryosphere, 2018, 12, 1887-1898.	1.5	5
78	Predictive skill for atmospheric rivers in the western Iberian Peninsula. Natural Hazards and Earth System Sciences, 2020, 20, 877-888.	1.5	5
79	Late Spring and Summer Subseasonal forecasts in the Northern Hemisphere midlatitudes: biases and skill in the ECMWF model. Monthly Weather Review, 2021, , .	0.5	2
80	Trends, variability and predictive skill of the ocean heat content in North Atlantic: an analysis with the EC-Earth3 model. Climate Dynamics, 2022, 58, 1311-1328.	1.7	2
81	Corrigendum to "Seasonal predictions of agro-meteorological drought indicators for the Limpopo basin" published in Hydrol. Earth Syst. Sci., 19, 2577â€“2586, 2015. Hydrology and Earth System Sciences, 2015, 19, 2637-2637.	1.9	0
82	GABLS4 intercomparison of snow models at Dome C in Antarctica. Cryosphere, 2022, 16, 2183-2202.	1.5	0