Juan P MontÃ¡vez

List of Publications by Year
in descending order

76 papers	3,842 citations	186265 28 h-index	133252 59 g-index
109 all docs	109 docs citations	109 times ranked	4901 citing authors

#	Article	IF	Citations
1	A Revised Scheme for the WRF Surface Layer Formulation. Monthly Weather Review, 2012, 140, 898-918.	1.4	1,021
2	Exacerbated fires in Mediterranean Europe due to anthropogenic warming projected with non-stationary climate-fire models. Nature Communications, 2018, 9, 3821.	12.8	275
3	The impact of climate change on photovoltaic power generation in Europe. Nature Communications, 2015, 6, 10014.	12.8	236
4	Regional climate downscaling over Europe: perspectives from the EURO-CORDEX community. Regional Environmental Change, 2020, 20, 1.	2.9	227
5	A study of the Urban Heat Island of Granada. International Journal of Climatology, 2000, 20, 899-911.	3.5	163
6	The Impact of the North Atlantic Oscillation on Renewable Energy Resources in Southwestern Europe. Journal of Applied Meteorology and Climatology, 2013, 52, 2204-2225.	1.5	98
7	Surface Wind Regionalization over Complex Terrain: Evaluation and Analysis of a High-Resolution WRF Simulation. Journal of Applied Meteorology and Climatology, 2010, 49, 268-287.	1.5	96
8	Natural and anthropogenic modes of surface temperature variations in the last thousand years. Geophysical Research Letters, 2005, 32, .	4.0	88
9	A regional climate simulation over the Iberian Peninsula for the last millennium. Climate of the Past, 2011, 7, 451-472.	3.4	73
10	A multi-physics ensemble of present-day climate regional simulations over the Iberian Peninsula. Climate Dynamics, 2013, 40, 3023-3046.	3.8	66
11	Sensitivity of the MM5 mesoscale model to physical parameterizations for regional climate studies: Annual cycle. Journal of Geophysical Research, 2007, 112, .	3.3	65
12	Spatio-temporal Complementarity between Solar and Wind Power in the Iberian Peninsula. Energy Procedia, 2013, 40, 48-57.	1.8	59
13	What is the role of the observational dataset in the evaluation and scoring of climate models?. Geophysical Research Letters, 2012, 39, .	4.0	56
14	Estimating 750 years of temperature variations and uncertainties in the Pyrenees by tree-ring reconstructions and climate simulations. Climate of the Past, 2012, 8, 919-933.	3.4	56
15	Quality Assurance of Surface Wind Observations from Automated Weather Stations. Journal of Atmospheric and Oceanic Technology, 2010, 27, 1101-1122.	1.3	54
16	Surface Wind Regionalization in Complex Terrain. Journal of Applied Meteorology and Climatology, 2008, 47, 308-325.	1.5	49
17	Characterization of surface winds over the Iberian Peninsula. International Journal of Climatology, 2015, 35, 1007-1026.	3.5	47
18	Present-climate precipitation and temperature extremes over Spain from a set of high resolution RCMs. Climate Research, 2013, 58, 149-164.	1.1	45

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19	An evaluation of WRF's ability to reproduce the surface wind over complex terrain based on typical circulation patterns. Journal of Geophysical Research D: Atmospheres, 2013, 118, 7651-7669.	3.3	45
20	Climatology of wind patterns in the northeast of the Iberian Peninsula. International Journal of Climatology, 2009, 29, 501-525.	3.5	44
21	The role of the landâ€surface model for climate change projections over the Iberian Peninsula. Journal of Geophysical Research, 2012, 117, .	3.3	42
22	A comparison of methodologies for monthly wind energy estimation. Wind Energy, 2009, 12, 640-659.	4.2	39
23	Consistency of climate change projections from multiple global and regional model intercomparison projects. Climate Dynamics, 2019, 52, 1139-1156.	3.8	39
24	Internal and external variability in regional simulations of the Iberian Peninsula climate over the last millennium. Climate of the Past, 2012, 8, 25-36.	3.4	36
25	A 49 year hindcast of surface winds over the Iberian Peninsula. International Journal of Climatology, 2015, 35, 3007-3023.	3.5	35
26	The influence of the Weibull assumption in monthly wind energy estimation. Wind Energy, 2008, 11, 483-502.	4.2	34
27	Temperature sensitivity to the land-surface model in MM5 climate simulations over the Iberian Peninsula. Meteorologische Zeitschrift, 2010, 19, 363-374.	1.0	32
28	Warming patterns in regional climate change projections over the Iberian Peninsula. Meteorologische Zeitschrift, 2010, 19, 275-285.	1.0	32
29	Impact of the North Atlantic Oscillation on European aerosol ground levels through local processes: a seasonal model-based assessment using fixed anthropogenic emissions. Atmospheric Chemistry and Physics, 2013, 13, 11195-11207.	4.9	31
30	Impacts of climate change on ground level gas-phase pollutants and aerosols in the Iberian Peninsula for the late XXI century. Atmospheric Environment, 2012, 55, 483-495.	4.1	29
31	A multi-physics ensemble of regional climate change projections over the Iberian Peninsula. Climate Dynamics, 2013, 41, 1749-1768.	3.8	28
32	A regional climate palaeosimulation for Europe in the period 1500â€“1990 â€“ Part 1: Model validation. Climate of the Past, 2013, 9, 1667-1682.	3.4	27
33	Impact of evolving greenhouse gas forcing on the warming signal in regional climate model experiments. Nature Communications, 2018, 9, 1304.	12.8	27
34	A Monte Carlo Model Of The Nocturnal Surface Temperatures In Urban Canyons. Boundary-Layer Meteorology, 2000, 96, 433-452.	2.3	26
35	North Atlantic atmospheric circulation and surface wind in the Northeast of the Iberian Peninsula: uncertainty and long term downscaled variability. Climate Dynamics, 2012, 38, 141-160.	3.8	26
36	A regional climate palaeosimulation for Europe in the period 1500â€“1990 â€“ Part 2: Shortcomings and strengths of models and reconstructions. Climate of the Past, 2015, 11, 1077-1095.	3.4	26

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37	Evaluating and Improving the Impact of the Atmospheric Stability and Orography on Surface Winds in the WRF Model. Monthly Weather Review, 2016, 144, 2685-2693.	1.4	26
38	Mean fields and interannual variability in RCM simulations over Spain: the ESCENA project. Climate Research, 2013, 57, 201-220.	1.1	25
39	On the Spinâ€Up Period in WRF Simulations Over Europe: Tradeâ€Offs Between Length and Seasonality. Journal of Advances in Modeling Earth Systems, 2020, 12, e2019MS001945.	3.8	24
40	Isolating the effects of climate change in the variation of secondary inorganic aerosols (SIA) in Europe for the 21st century (1991â€“2100). Atmospheric Environment, 2011, 45, 1059-1063.	4.1	21
41	A seasonal study of the atmospheric dynamics over the Iberian Peninsula based on circulation types. Theoretical and Applied Climatology, 2012, 110, 291-310.	2.8	21
42	Characterization of the wind speed variability and future change in the Iberian Peninsula and the Balearic Islands. Wind Energy, 2016, 19, 1223-1237.	4.2	19
43	Climate variability in Andalusia (southern Spain) during the period 1701â€“1850 based on documentary sources: evaluation and comparison with climate model simulations. Climate of the Past, 2012, 8, 117-133.	3.4	19
44	A simple model for estimating the maximum intensity of nocturnal urban heat Island. International Journal of Climatology, 2008, 28, 235-242.	3.5	18
45	Comparison of two different sea-salt aerosol schemes as implemented in air quality models applied to the Mediterranean Basin. Atmospheric Chemistry and Physics, 2011, 11, 4833-4850.	4.9	18
46	Relationship between wind power production and North Atlantic atmospheric circulation over the northeastern Iberian Peninsula. Climate Dynamics, 2013, 40, 935-949.	3.8	18
47	An assessment of aerosol optical properties from remote-sensing observations and regional chemistryâ€“climate coupled models over Europe. Atmospheric Chemistry and Physics, 2018, 18, 5021-5043.	4.9	18
48	The Effect of Heat Waves and Drought on Surface Wind Circulations in the Northeast of the Iberian Peninsula during the Summer of 2003. Journal of Climate, 2011, 24, 5416-5422.	3.2	16
49	A new region-aware bias-correction method for simulated precipitation in areas of complex orography. Geoscientific Model Development, 2018, 11, 2231-2247.	3.6	15
50	Effects of climatic change on the distribution and conservation of Mediterranean forests: the case of Tetraclinis articulata in the Iberian Peninsula. Biodiversity and Conservation, 2010, 19, 3809-3825.	2.6	14
51	Potential effects of climatic change on the distribution of Tetraclinis articulata, an endemic tree from arid Mediterranean ecosystems. Climatic Change, 2012, 113, 663-678.	3.6	14
52	Analysis of the long-term surface wind variability over complex terrain using a high spatial resolution WRF simulation. Climate Dynamics, 2013, 40, 1643-1656.	3.8	14
53	Is there a common pattern of future gas-phase air pollution in Europe under diverse climate change scenarios?. Climatic Change, 2013, 121, 661-671.	3.6	14
54	Biomass burning aerosol impact on surface winds during the 2010 Russian heat wave. Geophysical Research Letters, 2017, 44, 1088-1094.	4.0	14

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55	Unusual Atmosphericâ€Riverâ€Like Structures Coming From Africa Induce Extreme Precipitation Over the Western Mediterranean Sea. Journal of Geophysical Research D: Atmospheres, 2020, 125, e2019JD031280.	3.3	14
56	Covariability of seasonal temperature and precipitation over the Iberian Peninsula in high-resolution regional climate simulations (1001â€“2099). Global and Planetary Change, 2017, 151, 122-133.	3.5	13
57	Precipitation response to aerosolâ€“radiation and aerosolâ€“cloud interactions in regional climate simulations over Europe. Atmospheric Chemistry and Physics, 2021, 21, 415-430.	4.9	13
58	Saharan Dust Modeling Over the Mediterranean Basin and Central Europe: Does the Resolution Matter?. Frontiers in Earth Science, 2019, 7, .	1.8	12
59	Uncertainties in future ozone and PM10 projections over Europe from a regional climate multiphysics ensemble. Geophysical Research Letters, 2013, 40, 5764-5769.	4.0	9
60	Optimizing the execution of a parallel meteorology simulation code. , 2009, , .		8
61	Event selection for dynamical downscaling: a neural network approach for physically-constrained precipitation events. Climate Dynamics, 2022, 58, 2863-2879.	3.8	8
62	Added Value of Aerosol-Cloud Interactions for Representing Aerosol Optical Depth in an Online Coupled Climate-Chemistry Model over Europe. Atmosphere, 2020, 11, 360.	2.3	8
63	Sensitivity of surface solar radiation to aerosolâ€“radiation and aerosolâ€“cloud interactions over Europe in WRFv3.6.1 climatic runs with fully interactive aerosols. Geoscientific Model Development, 2021, 14, 1533-1551.	3.6	8
64	The weather behind words â€“ new methodologies for integrated hydrometeorological reconstruction through documentary sources. Climate of the Past, 2019, 15, 1303-1325.	3.4	7
65	TITAM (v1.0): the Time-Independent Tracking Algorithm for Medicanes. Geoscientific Model Development, 2020, 13, 6051-6075.	3.6	6
66	Impacts of Green Vegetation Fraction Derivation Methods on Regional Climate Simulations. Atmosphere, 2019, 10, 281.	2.3	4
67	Influence of sea salt aerosols on the development of Mediterranean tropical-like cyclones. Atmospheric Chemistry and Physics, 2021, 21, 13353-13368.	4.9	4
68	Attributing trends in extremely hot days to changes in atmospheric dynamics. Natural Hazards and Earth System Sciences, 2015, 15, 2143-2159.	3.6	4
69	On the role of aerosols in the production of orographically-induced extreme rainfall in near-maritime environments. Atmospheric Research, 2022, 268, 106001.	4.1	3
70	EMAD: an empirical model of air-sea fluxes. Meteorologische Zeitschrift, 2005, 14, 755-762.	1.0	2
71	A Monte Carlo simulation of the longwave radiation balance in urban structures. Computer Physics Communications, 1999, 121-122, 704.	7.5	1
72	Northern Hemisphere atmospheric pattern enhancing Eastern Mediterranean Transient-type events during the past 1000 years. Climate of the Past, 2021, 17, 1523-1532.	3.4	1

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73	Assessment of Aerosol-Radiation (ARI) and Aerosol-Cloud (ACI) Interactions from Dust: Modelled Dust Optical Properties and Remote Sensing Observations. Springer Proceedings in Complexity, 2018, , 183-187.	0.3	1
74	An open-source web mapping tool to estimate wind energy in the Iberian Peninsula. Journal of Spatial Science, 2019, 64, 153-172.	1.5	0
75	Temperature Response to Changes in Vegetation Fraction Cover in a Regional Climate Model. Atmosphere, 2021, 12, 599.	2.3	0
76	Future Air Pollution in Europe from a Multi-physics Ensemble of Climate Change-Air Quality Projections. NATO Science for Peace and Security Series C: Environmental Security, 2014, , 3-7.	0.2	0