

Pedro A Viterbo

List of Publications by Year in descending order

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74
papers

17,246
citations

38742

50
h-index

76900

74
g-index

77
all docs

77
docs citations

77
times ranked

14135
citing authors

#	ARTICLE	IF	CITATIONS
1	The ERA-40 reanalysis. Quarterly Journal of the Royal Meteorological Society, 2005, 131, 2961-3012.	2.7	6,198
2	The WFDEI meteorological forcing data set: WATCH Forcing Data methodology applied to ERA-Interim reanalysis data. Water Resources Research, 2014, 50, 7505-7514.	4.2	816
3	Creation of the WATCH Forcing Data and Its Use to Assess Global and Regional Reference Crop Evaporation over Land during the Twentieth Century. Journal of Hydrometeorology, 2011, 12, 823-848.	1.9	746
4	A Revised Hydrology for the ECMWF Model: Verification from Field Site to Terrestrial Water Storage and Impact in the Integrated Forecast System. Journal of Hydrometeorology, 2009, 10, 623-643.	1.9	695
5	Statistical bias correction of global simulated daily precipitation and temperature for the application of hydrological models. Journal of Hydrology, 2010, 395, 199-215.	5.4	642
6	The land surface-atmosphere interaction: A review based on observational and global modeling perspectives. Journal of Geophysical Research, 1996, 101, 7209-7225.	3.3	600
7	EC-Earth. Bulletin of the American Meteorological Society, 2010, 91, 1357-1364.	3.3	474
8	Multimodel Estimate of the Global Terrestrial Water Balance: Setup and First Results. Journal of Hydrometeorology, 2011, 12, 869-884.	1.9	466
9	An Improved Land Surface Parameterization Scheme in the ECMWF Model and Its Validation. Journal of Climate, 1995, 8, 2716-2748.	3.2	458
10	The Anomalous Rainfall over the United States during July 1993: Sensitivity to Land Surface Parameterization and Soil Moisture Anomalies. Monthly Weather Review, 1996, 124, 362-383.	1.4	424
11	Basin scale estimates of evapotranspiration using GRACE and other observations. Geophysical Research Letters, 2004, 31, .	4.0	405
12	Comparison of trends and low-frequency variability in CRU, ERA-40, and NCEP/NCAR analyses of surface air temperature. Journal of Geophysical Research, 2004, 109, .	3.3	291
13	Evaluation of forest snow processes models (SnowMIP2). Journal of Geophysical Research, 2009, 114, .	3.3	290
14	The representation of soil moisture freezing and its impact on the stable boundary layer. Quarterly Journal of the Royal Meteorological Society, 1999, 125, 2401-2426.	2.7	248
15	An Improved Snow Scheme for the ECMWF Land Surface Model: Description and Offline Validation. Journal of Hydrometeorology, 2010, 11, 899-916.	1.9	221
16	The Satellite Application Facility for Land Surface Analysis. International Journal of Remote Sensing, 2011, 32, 2725-2744.	2.9	207
17	Modeling Interannual Variations of Summer Monsoons. Journal of Climate, 1992, 5, 399-417.	3.2	200
18	Simulation of high-latitude hydrological processes in the Torneå-Kalix basin: PILPS Phase 2(e). Global and Planetary Change, 2003, 38, 1-30.	3.5	194

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19	The Rhône-Aggregation Land Surface Scheme Intercomparison Project: An Overview. <i>Journal of Climate</i> , 2004, 17, 187-208.	3.2	178
20	The European Summer of 2003: Sensitivity to Soil Water Initial Conditions. <i>Journal of Climate</i> , 2006, 19, 3659-3680.	3.2	168
21	Total basin discharge for the Amazon and Mississippi River basins from GRACE and a land-atmosphere water balance. <i>Geophysical Research Letters</i> , 2005, 32, .	4.0	154
22	Evaluation of the Optimum Interpolation and Nudging Techniques for Soil Moisture Analysis Using FIFE Data. <i>Monthly Weather Review</i> , 2000, 128, 1733-1756.	1.4	149
23	Evaluation of global precipitation data sets over the Iberian Peninsula. <i>Journal of Geophysical Research</i> , 2011, 116, .	3.3	144
24	GRACE-derived terrestrial water storage depletion associated with the 2003 European heat wave. <i>Geophysical Research Letters</i> , 2005, 32, n/a-n/a.	4.0	136
25	Inferring Changes in Terrestrial Water Storage Using ERA-40 Reanalysis Data: The Mississippi River Basin. <i>Journal of Climate</i> , 2004, 17, 2039-2057.	3.2	118
26	The ECMWF implementation of three-dimensional variational assimilation (3D-Var). III: Experimental results. <i>Quarterly Journal of the Royal Meteorological Society</i> , 1998, 124, 1831-1860.	2.7	114
27	Natural land carbon dioxide exchanges in the ECMWF integrated forecasting system: Implementation and offline validation. <i>Journal of Geophysical Research D: Atmospheres</i> , 2013, 118, 5923-5946.	3.3	113
28	Impact on ECMWF forecasts of changes to the albedo of the boreal forests in the presence of snow. <i>Journal of Geophysical Research</i> , 1999, 104, 27803-27810.	3.3	112
29	Simulation of high latitude hydrological processes in the Torneå-Kalix basin: PILPS Phase 2(e). <i>Global and Planetary Change</i> , 2003, 38, 31-53.	3.5	106
30	Evaluation of Reanalysis Soil Moisture Simulations Using Updated Chinese Soil Moisture Observations. <i>Journal of Hydrometeorology</i> , 2005, 6, 180-193.	1.9	106
31	Assimilation of Screen-Level Variables in ECMWF's Integrated Forecast System: A Study on the Impact on the Forecast Quality and Analyzed Soil Moisture. <i>Monthly Weather Review</i> , 2007, 135, 300-314.	1.4	106
32	A proposal for a general interface between land surface schemes and general circulation models. <i>Global and Planetary Change</i> , 1998, 19, 261-276.	3.5	101
33	A Proposed Structure for Coupling Tiled Surfaces with the Planetary Boundary Layer. <i>Journal of Hydrometeorology</i> , 2004, 5, 1271-1278.	1.9	95
34	Evaluation of the ERA-40 Surface Water Budget and Surface Temperature for the Mackenzie River Basin. <i>Journal of Hydrometeorology</i> , 2003, 4, 1194-1211.	1.9	90
35	Impact of leaf area index seasonality on the annual land surface evaporation in a global circulation model. <i>Journal of Geophysical Research</i> , 2003, 108, .	3.3	85
36	Towards a Kalman Filter based soil moisture analysis system for the operational ECMWF Integrated Forecast System. <i>Geophysical Research Letters</i> , 2009, 36, .	4.0	77

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37	A revised land hydrology in the ECMWF model: a step towards daily water flux prediction in a fullyâ€closed water cycle. <i>Hydrological Processes</i> , 2011, 25, 1046-1054.	2.6	77
38	The Torne-Kalix PILPS 2(e) experiment as a test bed for modifications to the ECMWF land surface scheme. <i>Global and Planetary Change</i> , 2003, 38, 165-173.	3.5	70
39	The sensitivity of winter evaporation to the formulation of aerodynamic resistance in the ECMWF model. <i>Boundary-Layer Meteorology</i> , 1994, 71, 135-149.	2.3	67
40	Land-surface, boundary layer, and cloud-field coupling over the southwestern Amazon in ERA-40. <i>Journal of Geophysical Research</i> , 2005, 110, n/a-n/a.	3.3	67
41	Ocean Waves and the Atmospheric Climate. <i>Journal of Climate</i> , 1996, 9, 1269-1287.	3.2	65
42	ECMWF's Global Snow Analysis: Assessment and Revision Based on Satellite Observations. <i>Journal of Applied Meteorology and Climatology</i> , 2004, 43, 1282-1294.	1.7	63
43	Impact of the ECMWF reanalysis soil water on forecasts of the July 1993 Mississippi flood. <i>Journal of Geophysical Research</i> , 1999, 104, 19361-19366.	3.3	60
44	Intercomparison of water and energy budgets for five Mississippi subbasins between ECMWF reanalysis (ERA-40) and NASA Data Assimilation Office fvGCM for 1990â€1999. <i>Journal of Geophysical Research</i> , 2003, 108, .	3.3	60
45	Evaluation of land-surface interaction in ECMWF and NCEP/NCAR reanalysis models over grassland (FIFE) and boreal forest (BOREAS). <i>Journal of Geophysical Research</i> , 1998, 103, 23079-23085.	3.3	58
46	The Usage of Screen-Level Parameters and Microwave Brightness Temperature for Soil Moisture Analysis. <i>Journal of Hydrometeorology</i> , 2004, 5, 516-531.	1.9	57
47	Complexity of Snow Schemes in a Climate Model and Its Impact on Surface Energy and Hydrology. <i>Journal of Hydrometeorology</i> , 2012, 13, 521-538.	1.9	57
48	Basin-scale surface water and energy budgets for the Mississippi from the ECMWF reanalysis. <i>Journal of Geophysical Research</i> , 1999, 104, 19293-19306.	3.3	56
49	Assessment of the ENSEMBLES regional climate models in the representation of precipitation variability and extremes over Portugal. <i>Journal of Geophysical Research</i> , 2012, 117, .	3.3	54
50	Surface Energy and Water Balance for the Arkansasâ€Red River Basin from the ECMWF Reanalysis. <i>Journal of Climate</i> , 1998, 11, 2881-2897.	3.2	52
51	Hydrometeorology of the Amazon in ERA-40. <i>Journal of Hydrometeorology</i> , 2005, 6, 764-774.	1.9	51
52	Iberia01: a new gridded dataset of daily precipitation and temperatures over Iberia. <i>Earth System Science Data</i> , 2019, 11, 1947-1956.	9.9	51
53	Landâ€atmosphere coupling associated with snow cover. <i>Geophysical Research Letters</i> , 2011, 38, .	4.0	48
54	ERAâ€40 reanalysis hydrological applications in the characterization of regional drought. <i>Geophysical Research Letters</i> , 2008, 35, .	4.0	47

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55	A Dynamical Interpretation of the Global Response to Equatorial pacific SST Anomalies. Journal of Climate, 1993, 6, 777-795.	3.2	45
56	Snow cover sensitivity to horizontal resolution, parameterizations, and atmospheric forcing in a land surface model. Journal of Geophysical Research, 2011, 116, .	3.3	41
57	Basin-scale water-balance estimates of terrestrial water storage variations from ECMWF operational forecast analysis. Geophysical Research Letters, 2006, 33, .	4.0	36
58	Comparison of the Land-Surface Interaction in the ECMWF Reanalysis Model with the 1987 FIFE Data. Monthly Weather Review, 1998, 126, 186-198.	1.4	34
59	Soil moisture simulations in revised AMIP models. Journal of Geophysical Research, 2000, 105, 26635-26644.	3.3	34
60	Clear-Sky Window Channel Radiances: A Comparison between Observations and the ECMWF Model. Journal of Applied Meteorology and Climatology, 2003, 42, 1463-1479.	1.7	29
61	Coupling an ocean wave model to an atmospheric general circulation model. Climate Dynamics, 1993, 9, 63-69.	3.8	28
62	The Numerics of Physical Parametrization in the ECMWF Model. Frontiers in Earth Science, 2018, 6, .	1.8	28
63	Assessing land-surface-atmosphere coupling in the ERA-40 reanalysis with boreal forest data. Agricultural and Forest Meteorology, 2006, 140, 365-382.	4.8	27
64	Analysis of Soil Moisture Changes in Europe during a Single Growing Season in a New ECMWF Soil Moisture Assimilation System. Journal of Hydrometeorology, 2008, 9, 116-131.	1.9	27
65	Estimation of downward longwave radiation at the surface combining remotely sensed data and NWP data. Journal of Geophysical Research, 2010, 115, .	3.3	26
66	Comparison of land surface hydrology in regional climate simulations of the Baltic Sea catchment. Journal of Hydrology, 2002, 255, 169-193.	5.4	23
67	Hydrological Budgets and Surface Energy Balance of Seven Subbasins of the Mackenzie River from the ECMWF Model. Journal of Hydrometeorology, 2000, 1, 47-60.	1.9	19
68	Evaluation of European Land Data Assimilation System (ELDAS) products using in situ observations. Tellus, Series A: Dynamic Meteorology and Oceanography, 2022, 60, 1023.	1.7	19
69	Soil-moisture nudging experiments with a single-column version of the ECMWF model. Quarterly Journal of the Royal Meteorological Society, 1999, 125, 1879-1902.	2.7	13
70	The Determination of the Surface Stress in an Atmospheric Model. Monthly Weather Review, 1992, 120, 2977-2985.	1.4	8
71	The impact of changes in the runoff formulation of a general circulation model on surface and near-surface parameters. Journal of Hydrology, 1994, 155, 325-336.	5.4	7
72	Axial Atmospheric Angular Momentum Budget at Diurnal and Subdiurnal Periodicities. Journals of the Atmospheric Sciences, 2008, 65, 156-171.	1.7	7

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73	GCM sensitivity experiments with locally modified land surface properties over tropical South America. <i>Climate Dynamics</i> , 2006, 26, 729-749.	3.8	3
74	Comments on "Observation of a monthly variation in global surface temperature data". <i>Geophysical Research Letters</i> , 1996, 23, 693-694.	4.0	1