Paul C D Milly

List of Publications by Year
in descending order

93 papers	20,401 citations	39113 52 h-index	49824 91 g-index
98 all docs	98 docs citations	98 times ranked	20986 citing authors

#	Article	IF	Citations
1	Stationarity Is Dead: Whither Water Management?. Science, 2008, 319, 573-574.	6.0	3,381
2	Global pattern of trends in streamflow and water availability in a changing climate. Nature, 2005, 438, 347-350.	13.7	1,782
3	GFDL's CM2 Global Coupled Climate Models. Part I: Formulation and Simulation Characteristics. Journal of Climate, 2006, 19, 643-674.	1.2	1,431
4	Increasing risk of great floods in a changing climate. Nature, 2002, 415, 514-517.	13.7	1,419
5	GFDLâ€™s ESM2 Global Coupled Climateâ€“Carbon Earth System Models. Part I: Physical Formulation and Baseline Simulation Characteristics. Journal of Climate, 2012, 25, 6646-6665.	1.2	972
6	The Dynamical Core, Physical Parameterizations, and Basic Simulation Characteristics of the Atmospheric Component AM3 of the GFDL Global Coupled Model CM3. Journal of Climate, 2011, 24, 3484-3519.	1.2	887
7	The New GFDL Global Atmosphere and Land Model AM2â€“LM2: Evaluation with Prescribed SST Simulations. Journal of Climate, 2004, 17, 4641-4673.	1.2	756
8	Climate, soil water storage, and the average annual water balance. Water Resources Research, 1994, 30, 2143-2156.	1.7	554
9	GFDLâ€™s ESM2 Global Coupled Climateâ€“Carbon Earth System Models. Part II: Carbon System Formulation and Baseline Simulation Characteristics*. Journal of Climate, 2013, 26, 2247-2267.	1.2	540
10	Potential evapotranspiration and continentalÂdrying. Nature Climate Change, 2016, 6, 946-949.	8.1	439
11	Carbon cycling under 300 years of land use change: Importance of the secondary vegetation sink. Global Biogeochemical Cycles, 2009, 23, .	1.9	338
12	Crustal displacements due to continental water loading. Geophysical Research Letters, 2001, 28, 651-654.	1.5	324
13	Global Modeling of Land Water and Energy Balances. Part I: The Land Dynamics (LaD) Model. Journal of Hydrometeorology, 2002, 3, 283-299.	0.7	314
14	Landâ€“atmosphere feedbacks amplify aridity increase over land under global warming. Nature Climate Change, 2016, 6, 869-874.	8.1	300
15	The Interplay between Transpiration and Runoff Formulations in Land Surface Schemes Used with Atmospheric Models. Journal of Climate, 1997, 10, 1578-1591.	1.2	297
16	Cabauw Experimental Results from the Project for Intercomparison of Land-Surface Parameterization Schemes. Journal of Climate, 1997, 10, 1194-1215.	1.2	296
17	Hillslope Hydrology in Global Change Research and Earth System Modeling. Water Resources Research, 2019, 55, 1737-1772.	1.7	281
18	The GFDL Earth System Model Version 4.1 (GFDLâ€ESM 4.1): Overall Coupled Model Description and Simulation Characteristics. Journal of Advances in Modeling Earth Systems, 2020, 12, e2019MS002015.	1.3	277

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19	Snowfall less sensitive to warming in Karakoram than in Himalayas due to a unique seasonal cycle. Nature Geoscience, 2014, 7, 834-840.	5.4	246
20	Structure and Performance of GFDL's CM4.0 Climate Model. Journal of Advances in Modeling Earth Systems, 2019, 11, 3691-3727.	1.3	242
21	Macroscale water fluxes 2. Water and energy supply control of their interannual variability. Water Resources Research, 2002, 38, 24-1-24-9.	1.7	230
22	Estimated accuracies of regional water storage variations inferred from the Gravity Recovery and Climate Experiment (GRACE). Water Resources Research, 2003, 39, .	1.7	216
23	Divergent surface and total soil moisture projections under global warming. Geophysical Research Letters, 2017, 44, 236-244.	1.5	206
24	On Critiques of â€œStationarity is Dead: Whither Water Management?â€ Water Resources Research, 2015, 51, 7785-7789.	1.7	204
25	Colorado River flow dwindles as warming-driven loss of reflective snow energizes evaporation. Science, 2020, 367, 1252-1255.	6.0	196
26	Sensitivity of the Global Water Cycle to the Water-Holding Capacity of Land. Journal of Climate, 1994, 7, 506-526.	1.2	189
27	Effects of rainfall seasonality and soil moisture capacity on mean annual water balance for Australian catchments. Water Resources Research, 2005, 41, .	1.7	189
28	The GFDL Global Atmosphere and Land Model AM4.0/LM4.0: 2. Model Description, Sensitivity Studies, and Tuning Strategies. Journal of Advances in Modeling Earth Systems, 2018, 10, 735-769.	1.3	185
29	Biofilm growth and the related changes in the physical properties of a porous medium: 2. Permeability. Water Resources Research, 1990, 26, 2161-2169.	1.7	177
30	A Simulation Analysis of Thermal Effects on Evaporation From Soil. Water Resources Research, 1984, 20, 1087-1098.	1.7	168
31	Modeled Impact of Anthropogenic Land Cover Change on Climate. Journal of Climate, 2007, 20, 3621-3634.	1.2	166
32	An Enhanced Model of Land Water and Energy for Global Hydrologic and Earth-System Studies. Journal of Hydrometeorology, 2014, 15, 1739-1761.	0.7	155
33	The GFDL Global Atmosphere and Land Model AM4.0/LM4.0: 1. Simulation Characteristics With Prescribed SSTs. Journal of Advances in Modeling Earth Systems, 2018, 10, 691-734.	1.3	155
34	An analytic solution of the stochastic storage problem applicable to soil water. Water Resources Research, 1993, 29, 3755-3758.	1.7	150
35	Climate, interseasonal storage of soil water, and the annual water balance. Advances in Water Resources, 1994, 17, 19-24.	1.7	122
36	Water and heat fluxes in desert soils: 2. Numerical simulations. Water Resources Research, 1994, 30, 721-733.	1.7	121

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37	Trends in evaporation and surface cooling in the Mississippi River Basin. Geophysical Research Letters, 2001, 28, 1219-1222.	1.5	120
38	Simulated long-term changes in river discharge and soil moisture due to global warming / Simulations Ã long terme de changements dâ€™Ã©coulement fluvial et dâ€™humiditÃ© du sol causÃ©s par le rÃ©chauffement global. Hydrological Sciences Journal, 2004, 49, .	1.2	105
39	Influence of landâ€atmosphere feedbacks on temperature and precipitation extremes in the GLACEâ€CMIP5 ensemble. Journal of Geophysical Research D: Atmospheres, 2016, 121, 607-623.	1.2	102
40	Potential Evaporation and Soil Moisture in General Circulation Models. Journal of Climate, 1992, 5, 209-226.	1.2	99
41	SPEAR: The Next Generation GFDL Modeling System for Seasonal to Multidecadal Prediction and Projection. Journal of Advances in Modeling Earth Systems, 2020, 12, e2019MS001895.	1.3	94
42	Century-Scale Change in Water Availability: CO2-Quadrupling Experiment. Climatic Change, 2004, 64, 59-76.	1.7	93
43	On the Hydrologic Adjustment of Climate-Model Projections: The Potential Pitfall of Potential Evapotranspiration. Earth Interactions, 2011, 15, 1-14.	0.7	91
44	An eventâ€based simulation model of moisture and energy fluxes at a bare soil surface. Water Resources Research, 1986, 22, 1680-1692.	1.7	82
45	A Hydrologic Drying Bias in Waterâ€Resource Impact Analyses of Anthropogenic Climate Change. Journal of the American Water Resources Association, 2017, 53, 822-838.	1.0	77
46	Differences in flood hazard projections in Europe â€“ their causes and consequences for decision making. Hydrological Sciences Journal, 0, , .	1.2	74
47	Climate model biases in seasonality of continental water storage revealed by satellite gravimetry. Water Resources Research, 2006, 42, .	1.7	70
48	Weak Simulated Extratropical Responses to Complete Tropical Deforestation. Journal of Climate, 2006, 19, 2835-2850.	1.2	70
49	Advances in modeling of water in the unsaturated zone. Transport in Porous Media, 1988, 3, 491-514.	1.2	69
50	A Model-Based Investigation of Soil Moisture Predictability and Associated Climate Predictability. Journal of Hydrometeorology, 2002, 3, 483-501.	0.7	67
51	Contribution of climate-driven change in continental water storage to recent sea-level rise. Proceedings of the National Academy of Sciences of the United States of America, 2003, 100, 13158-13161.	3.3	66
52	Effects of spatial variability on annual average water balance. Water Resources Research, 1987, 23, 2135-2143.	1.7	64
53	Land waters and sea level. Nature Geoscience, 2009, 2, 452-454.	5.4	57
54	A minimalist probabilistic description of root zone soil water. Water Resources Research, 2001, 37, 457-463.	1.7	52

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55	Macroscale water fluxes 3. Effects of land processes on variability of monthly river discharge. Water Resources Research, 2002, 38, 17-1-17-12.	1.7	47
56	Relating low-flow characteristics to the base flow recession time constant at partial record stream gauges. Water Resources Research, 2007, 43, .	1.7	47
57	Estimation of Brooksâ€Corey Parameters from water retention data. Water Resources Research, 1987, 23, 1085-1089.	1.7	46
58	On the relationship between the time condensation approximation and the flux concentration relation. Journal of Hydrology, 1989, 105, 357-367.	2.3	46
59	Effect of storm scale on surface runoff volume. Water Resources Research, 1988, 24, 620-624.	1.7	43
60	A Linear Analysis of Thermal Effects on Evaporation From Soil. Water Resources Research, 1984, 20, 1075-1085.	1.7	40
61	Sensitivity of greenhouse summer dryness to changes in plant rooting characteristics. Geophysical Research Letters, 1997, 24, 269-271.	1.5	40
62	Global Modeling of Land Water and Energy Balances. Part II: Land-Characteristic Contributions to Spatial Variability. Journal of Hydrometeorology, 2002, 3, 301-310.	0.7	40
63	Macroscale water fluxes 1. Quantifying errors in the estimation of basin mean precipitation. Water Resources Research, 2002, 38, 23-1-23-14.	1.7	40
64	Harnessing big data to rethink land heterogeneity in Earth system models. Hydrology and Earth System Sciences, 2018, 22, 3311-3330.	1.9	39
65	On the Sensitivity of Annual Streamflow to Air Temperature. Water Resources Research, 2018, 54, 2624-2641.	1.7	36
66	Analysis of Wellâ€Aquifer Response to a Slug Test. Water Resources Research, 1985, 21, 1433-1436.	1.7	34
67	Climate variability and extremes, interacting with nitrogen storage, amplify eutrophication risk. Geophysical Research Letters, 2016, 43, 7520-7528.	1.5	32
68	Prominence of the tropics in the recent rise of global nitrogen pollution. Nature Communications, 2019, 10, 1437.	5.8	32
69	Dualâ€gamma attenuation for the determination of porous medium saturation with respect to three fluids. Water Resources Research, 1986, 22, 1657-1663.	1.7	30
70	Potential for western US seasonal snowpack prediction. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, 1180-1185.	3.3	30
71	Titanâ€™s climate patterns and surface methane distribution due to the coupling of land hydrology and atmosphere. Nature Astronomy, 2020, 4, 390-398.	4.2	30
72	AN ANALYSIS OF REGION-OF-INFLUENCE METHODS FOR FLOOD REGIONALIZATION IN THE GULF-ATLANTIC ROLLING PLAINS. Journal of the American Water Resources Association, 2005, 41, 135-143.	1.0	29

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73	A refinement of the combination equations for evaporation. Surveys in Geophysics, 1991, 12, 145-154.	2.1	28
74	Flood Regionalization: A Hybrid Geographic and Predictor-Variable Region-of-Influence Regression Method. Journal of Hydrologic Engineering - ASCE, 2007, 12, 585-591.	0.8	27
75	Global Modeling of Land Water and Energy Balances. Part III: Interannual Variability. Journal of Hydrometeorology, 2002, 3, 311-321.	0.7	24
76	100-Year Lower Mississippi Floods in a Global Climate Model: Characteristics and Future Changes. Journal of Hydrometeorology, 2018, 19, 1547-1563.	0.7	24
77	Effects of Thermal Vapor Diffusion on Seasonal Dynamics of Water in the Unsaturated Zone. Water Resources Research, 1996, 32, 509-518.	1.7	22
78	Simulated Global Coastal Ecosystem Responses to a Halfâ€Century Increase in River Nitrogen Loads. Geophysical Research Letters, 2021, 48, e2021GL094367.	1.5	22
79	A comparison of capillary pressure-saturation relations for drainage in two- and three-fluid porous media. Advances in Water Resources, 1990, 13, 54-63.	1.7	19
80	Sensitivity analysis of flow in unsaturated heterogeneous porous media: Theory, numerical model and its verification. Water Resources Research, 1990, 26, 593-610.	1.7	17
81	Comment on â€œAntiphasing between Rainfall in Africa's Rift Valley and North America's Great Basinâ€. Quaternary Research, 1999, 51, 104-107.	1.0	15
82	Capturing interactions between nitrogen and hydrological cycles under historical climate and land use: Susquehanna watershed analysis with the GFDL land model LM3-TAN. Biogeosciences, 2014, 11, 5809-5826.	1.3	14
83	Advances in Modeling of Water in the Unsaturated Zone. , 1988, , 489-514.		14
84	Development and application of a hillslope hydrologic model. Advances in Water Resources, 1991, 14, 168-174.	1.7	12
85	Sensitivity of the projected hydroclimatic environment of the Delaware River basin to formulation of potential evapotranspiration. Climatic Change, 2016, 139, 215-228.	1.7	12
86	Stability of the Greenâ€Ampt Profile in a Delta Function Soil. Water Resources Research, 1985, 21, 399-402.	1.7	11
87	Climate Model Assessment of Changes in Winterâ€"Spring Streamflow Timing over North America. Journal of Climate, 2018, 31, 5581-5593.	1.2	11
88	Globally prevalent land nitrogen memory amplifies water pollution following drought years. Environmental Research Letters, 2021, 16, 014049.	2.2	8
89	Sensitivity analysis of partial differential equations: A case for functional sensitivity. Numerical Methods for Partial Differential Equations, 1991, 7, 101-112.	2.0	5
90	Sensitivity Analysis of Infiltration, Exfiltration, and Drainage in Unsaturated Miller-Similar Porous Media. Water Resources Research, 1991, 27, 2655-2666.	1.7	4

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91	Comparing GCM-generated land surface water budgets using a simple common framework. Water Science and Application, 2001, , 95-105.	0.3	3
92	On Critiques of â€œStationarity is Dead: Whither Water Management?â€• , 2015, 51, 7785.		1
93	Possible Anthropogenic Enhancement of Precipitation in the Sahelâ€Sudan Savanna by Remote Agricultural Irrigation. Geophysical Research Letters, 2022, 49, .	1.5	1