Adrian A Harpold

List of Publications by Citations

The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

59 papers	2,220 citations	28 h-index	46 g-index
76 ext. papers	2,834 ext. citations	4.6 avg, IF	5.15 L-index

#	Paper	IF	Citations
59	Twenty-three unsolved problems in hydrology (UPH) – a community perspective. *Hydrological Sciences Journal*, **2019**, 64, 1141-1158	3.5	259
58	Snowmelt rate dictates streamflow. *Geophysical Research Letters*, **2016**, 43, 8006-8016	4.9	149
57	Rain or snow: hydrologic processes, observations, prediction, and research needs. *Hydrology and Earth System Sciences*, **2017**, 21, 1-22	5.5	145
56	Changes in snowpack accumulation and ablation in the intermountain west. *Water Resources Research*, **2012**, 48,	5.4	111
55	How Water, Carbon, and Energy Drive Critical Zone Evolution: The Jemez–Santa Catalina Critical Zone Observatory. *Vadose Zone Journal*, **2011**, 10, 884-899	2.7	96
54	Changes in snow accumulation and ablation following the Las Conchas Forest Fire, New Mexico, USA. *Ecohydrology*, **2014**, 7, 440-452	2.5	86
53	Multiscale observations of snow accumulation and peak snowpack following widespread, insect-induced lodgepole pine mortality. *Ecohydrology*, **2014**, 7, 150-162	2.5	78
52	Quantifying the effects of vegetation structure on snow accumulation and ablation in mixed-conifer forests. *Ecohydrology*, **2015**, 8, 1073-1094	2.5	78
51	Recent tree die-off has little effect on streamflow in contrast to expected increases from historical studies. *Water Resources Research*, **2015**, 51, 9775-9789	5.4	74
50	Soil moisture response to snowmelt timing in mixed-conifer subalpine forests. *Hydrological Processes*, **2015**, 29, 2782-2798	3.3	66
49	Increased evaporation following widespread tree mortality limits streamflow response. *Water Resources Research*, **2014**, 50, 5395-5409	5.4	65
48	LiDAR-derived snowpack data sets from mixed conifer forests across the Western United States. *Water Resources Research*, **2014**, 50, 2749-2755	5.4	63
47	Humidity determines snowpack ablation under a warming climate. *Proceedings of the National Academy of Sciences of the United States of America*, **2018**, 115, 1215-1220	11.5	60
46	Sensitivity of soil water availability to changing snowmelt timing in the western U.S.. *Geophysical Research Letters*, **2015**, 42, 8011-8020	4.9	57
45	Rare earth elements as reactive tracers of biogeochemical weathering in forested rhyolitic terrain. *Chemical Geology*, **2015**, 391, 19-32	4.2	50
44	Variation in root density along stream banks. *Journal of Environmental Quality*, **2004**, 33, 2030-9	3.4	50
43	Stream water carbon controls in seasonally snow-covered mountain catchments: impact of inter-annual variability of water fluxes, catchment aspect and seasonal processes. *Biogeochemistry*, **2014**, 118, 273-290	3.8	46

42	Topographically driven differences in energy and water constrain climatic control on forest carbon sequestration. *Ecosphere*, **2017**, 8, e01797	3.1	43
41	Aerosol and precipitation chemistry in the southwestern United States: spatiotemporal trends and interrelationships. *Atmospheric Chemistry and Physics*, **2013**, 13, 7361-7379	6.8	43
40	Regional sensitivities of seasonal snowpack to elevation, aspect, and vegetation cover in western North America. *Water Resources Research*, **2017**, 53, 6908-6926	5.4	41
39	The relative contributions of alpine and subalpine ecosystems to the water balance of a mountainous, headwater catchment. *Hydrological Processes*, **2015**, 29, 4794-4808	3.3	39
38	Temperature controls production but hydrology regulates export of dissolved organic carbon at the catchment scale. *Hydrology and Earth System Sciences*, **2020**, 24, 945-966	5.5	36
37	Geochemical evolution of the Critical Zone across variable time scales informs concentration-discharge relationships: Jemez River Basin Critical Zone Observatory. *Water Resources Research*, **2017**, 53, 4169-4196	5.4	35
36	Investigating a high resolution, stream chloride time series from the Biscuit Brook catchment, Catskills, NY. *Journal of Hydrology*, **2008**, 348, 245-256	6	35
35	Relative Humidity Has Uneven Effects on Shifts From Snow to Rain Over the Western U.S.. *Geophysical Research Letters*, **2017**, 44, 9742-9750	4.9	33
34	Laser vision: lidar as a transformative tool to advance critical zone science. *Hydrology and Earth System Sciences*, **2015**, 19, 2881-2897	5.5	33
33	Diverging sensitivity of soil water stress to changing snowmelt timing in the Western U.S.. *Advances in Water Resources*, **2016**, 92, 116-129	4.7	33
32	From Hydrometeorology to River Water Quality: Can a Deep Learning Model Predict Dissolved Oxygen at the Continental Scale?. *Environmental Science & Technology*, **2021**, 55, 2357-2368	10.3	33
31	Testing and Improving Temperature Thresholds for Snow and Rain Prediction in the Western United States. *Journal of the American Water Resources Association*, **2016**, 52, 1142-1154	2.1	22
30	The Hydrological Effects of Lateral Preferential Flow Paths in a Glaciated Watershed in the Northeastern USA. *Vadose Zone Journal*, **2010**, 9, 397-414	2.7	20
29	Potential for Changing Extreme Snowmelt and Rainfall Events in the Mountains of the Western United States. *Journal of Geophysical Research D: Atmospheres*, **2017**, 122, 13,219	4.4	17
28	Stream Discharge Measurement Using a Large-Scale Particle Image Velocimetry (LSPIV) Prototype. *Transactions of the ASABE*, **2006**, 49, 1791-1805	0.9	17
27	Does Including Soil Moisture Observations Improve Operational Streamflow Forecasts in Snow-Dominated Watersheds?. *Journal of the American Water Resources Association*, **2017**, 53, 179-196	2.1	15
26	Watershed-scale mapping of fractional snow cover under conifer forest canopy using lidar. *Remote Sensing of Environment*, **2019**, 222, 34-49	13.2	15
25	Impacts of Sampling Dissolved Organic Matter with Passive Capillary Wicks Versus Aqueous Soil Extraction. *Soil Science Society of America Journal*, **2012**, 76, 2019-2030	2.5	14

24	Partitioning snowmelt and rainfall in the critical zone: effects of climate type and soil properties. *Hydrology and Earth System Sciences*, **2019**, 23, 3553-3570	5.5	13
23	A net ecosystem carbon budget for snow dominated forested headwater catchments: linking water and carbon fluxes to critical zone carbon storage. *Biogeochemistry*, **2018**, 138, 225-243	3.8	12
22	Now you see it, now you don⫫: a case study of ephemeral snowpacks and soil moisture response in the Great Basin, USA. *Hydrology and Earth System Sciences*, **2018**, 22, 4891-4906	5.5	11
21	Direct Channel Precipitation and Storm Characteristics Influence Short-Term Fallout Radionuclide Assessment of Sediment Source. *Water Resources Research*, **2018**, 54, 4579-4594	5.4	10
20	Performance Assessment of Optical Satellite-Based Operational Snow Cover Monitoring Algorithms in Forested Landscapes. *IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing*, **2021**, 14, 7159-7178	4.7	10
19	Increasing the efficacy of forest thinning for snow using high-resolution modeling: A proof of concept in the Lake Tahoe Basin, California, USA. *Ecohydrology*, **2020**, 13, e2203	2.5	9
18	Patterns and Drivers of Atmospheric River Precipitation and Hydrologic Impacts across the Western United States. *Journal of Hydrometeorology*, **2020**, 21, 143-159	3.7	9
17	Riparian zones attenuate nitrogen loss following bark beetle-induced lodgepole pine mortality. *Journal of Geophysical Research G: Biogeosciences*, **2016**, 121, 933-948	3.7	8
16	Relating hydrogeomorphic properties to stream buffering chemistry in the Neversink River watershed, New York State, USA. *Hydrological Processes*, **2010**, 24, 3759-3771	3.3	8
15	Snowmelt causes different limitations on transpiration in a Sierra Nevada conifer forest. *Agricultural and Forest Meteorology*, **2020**, 291, 108089	5.8	8
14	Estimating the Effects of Forest Structure Changes From Wildfire on Snow Water Resources Under Varying Meteorological Conditions. *Water Resources Research*, **2020**, 56, e2020WR027071	5.4	7
13	Using Process Based Snow Modeling and Lidar to Predict the Effects of Forest Thinning on the Northern Sierra Nevada Snowpack. *Frontiers in Forests and Global Change*, **2020**, 3,	3.7	7
12	Laser vision: lidar as a transformative tool to advance critical zone science		6
11	The sensitivity of snow ephemerality to warming climate across an arid to montane vegetation gradient. *Ecohydrology*, **2019**, 12, e2060	2.5	6
10	Streams as mirrors: reading subsurface water chemistry from stream chemistry. *Water Resources Research*,e2021WR029931	5.4	5
9	Drivers and projections of ice phenology in mountain lakes in the western United States. *Limnology and Oceanography*, **2021**, 66, 995-1008	4.8	5
8	Growing new generations of critical zone scientists. *Earth Surface Processes and Landforms*, **2017**, 42, 2498-2502	3.7	4
7	Bias Correction of Airborne Thermal Infrared Observations Over Forests Using Melting Snow. *Water Resources Research*, **2019**, 55, 11331-11343	5.4	4

List of Publications

6	Using Lidar to Advance Critical Zone Science. *Eos*, **2014**, 95, 364-364	1.5	3
5	Drivers of Dissolved Organic Carbon Mobilization From Forested Headwater Catchments: A Multi Scaled Approach. *Frontiers in Water*, **2021**, 3,	2.6	3
4	Variation in Root Density along Stream Banks **2004**, 400		2
3	Hydrogeomorphology explains acidification-driven variation in aquatic biological communities in the Neversink Basin, USA **2013**, 23, 791-800		1
2	Unraveling the Controls on Snow Disappearance in Montane Conifer Forests Using Multi-Site Lidar. *Water Resources Research*, **2021**, 57,	5.4	1
1	Accounting for Fine-Scale Forest Structure is Necessary to Model Snowpack Mass and Energy Budgets in Montane Forests. *Water Resources Research*, **2021**, 57, e2021WR029716	5.4	0