Adrian A Harpold

List of Publications by Year in Descending Order

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	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
58	Drivers of Dissolved Organic Carbon Mobilization From Forested Headwater Catchments: A Multi Scaled Approach. *Frontiers in Water*, **2021**, 3,	2.6	3
57	Drivers and projections of ice phenology in mountain lakes in the western United States. *Limnology and Oceanography*, **2021**, 66, 995-1008	4.8	5
56	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
55	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
54	Unraveling the Controls on Snow Disappearance in Montane Conifer Forests Using Multi-Site Lidar. *Water Resources Research*, **2021**, 57,	5.4	1
53	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
52	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
51	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
50	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
49	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
48	Snowmelt causes different limitations on transpiration in a Sierra Nevada conifer forest. *Agricultural and Forest Meteorology*, **2020**, 291, 108089	5.8	8
47	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
46	Twenty-three unsolved problems in hydrology (UPH) – a community perspective. *Hydrological Sciences Journal*, **2019**, 64, 1141-1158	3.5	259
45	Bias Correction of Airborne Thermal Infrared Observations Over Forests Using Melting Snow. *Water Resources Research*, **2019**, 55, 11331-11343	5.4	4
44	Watershed-scale mapping of fractional snow cover under conifer forest canopy using lidar. *Remote Sensing of Environment*, **2019**, 222, 34-49	13.2	15
43	The sensitivity of snow ephemerality to warming climate across an arid to montane vegetation gradient. *Ecohydrology*, **2019**, 12, e2060	2.5	6

42	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
41	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
40	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
39	Now you see it, now you don't: 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
38	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
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	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
35	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
34	Rain or snow: hydrologic processes, observations, prediction, and research needs. *Hydrology and Earth System Sciences*, **2017**, 21, 1-22	5.5	145
33	Growing new generations of critical zone scientists. *Earth Surface Processes and Landforms*, **2017**, 42, 2498-2502	3.7	4
32	Topographically driven differences in energy and water constrain climatic control on forest carbon sequestration. *Ecosphere*, **2017**, 8, e01797	3.1	43
31	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
30	Snowmelt rate dictates streamflow. *Geophysical Research Letters*, **2016**, 43, 8006-8016	4.9	149
29	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
28	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
27	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
26	Rare earth elements as reactive tracers of biogeochemical weathering in forested rhyolitic terrain. *Chemical Geology*, **2015**, 391, 19-32	4.2	50
25	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

24	Sensitivity of soil water availability to changing snowmelt timing in the western U.S.. *Geophysical Research Letters*, **2015**, 42, 8011-8020	4.9	57
23	Soil moisture response to snowmelt timing in mixed-conifer subalpine forests. *Hydrological Processes*, **2015**, 29, 2782-2798	3.3	66
22	Quantifying the effects of vegetation structure on snow accumulation and ablation in mixed-conifer forests. *Ecohydrology*, **2015**, 8, 1073-1094	2.5	78
21	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
20	Laser vision: lidar as a transformative tool to advance critical zone science. *Hydrology and Earth System Sciences*, **2015**, 19, 2881-2897	5.5	33
19	Multiscale observations of snow accumulation and peak snowpack following widespread, insect-induced lodgepole pine mortality. *Ecohydrology*, **2014**, 7, 150-162	2.5	78
18	Increased evaporation following widespread tree mortality limits streamflow response. *Water Resources Research*, **2014**, 50, 5395-5409	5.4	65
17	Changes in snow accumulation and ablation following the Las Conchas Forest Fire, New Mexico, USA. *Ecohydrology*, **2014**, 7, 440-452	2.5	86
16	Using Lidar to Advance Critical Zone Science. *Eos*, **2014**, 95, 364-364	1.5	3
15	LiDAR-derived snowpack data sets from mixed conifer forests across the Western United States. *Water Resources Research*, **2014**, 50, 2749-2755	5.4	63
14	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
13	Hydrogeomorphology explains acidification-driven variation in aquatic biological communities in the Neversink Basin, USA **2013**, 23, 791-800		1
12	Aerosol and precipitation chemistry in the southwestern United States: spatiotemporal trends and interrelationships. *Atmospheric Chemistry and Physics*, **2013**, 13, 7361-7379	6.8	43
11	Changes in snowpack accumulation and ablation in the intermountain west. *Water Resources Research*, **2012**, 48,	5.4	111
10	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
9	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
8	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
7	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

List of Publications

6	Investigating a high resolution, stream chloride time series from the Biscuit Brook catchment, Catskills, NY. *Journal of Hydrology*, **2008**, 348, 245-256	6	35
5	Stream Discharge Measurement Using a Large-Scale Particle Image Velocimetry (LSPIV) Prototype. *Transactions of the ASABE*, **2006**, 49, 1791-1805	0.9	17
4	Variation in root density along stream banks. *Journal of Environmental Quality*, **2004**, 33, 2030-9	3.4	50
3	Variation in Root Density along Stream Banks **2004**, 400		2
2	Laser vision: lidar as a transformative tool to advance critical zone science		6
1	Streams as mirrors: reading subsurface water chemistry from stream chemistry. *Water Resources Research*,e2021WR029931	5.4	5