Luke A Mcguire

List of Publications by Year
in descending order

35 papers	1,048 citations	331670 21 h-index	414414 32 g-index
36 all docs	36 docs citations	36 times ranked	861 citing authors

#	Article	IF	Citations
1	Model simulations of flood and debris flow timing in steep catchments after wildfire. Water Resources Research, 2016, 52, 6041-6061.	4.2	76
2	Debris flow initiation by runoff in a recently burned basin: Is grainâ€byâ€grain sediment bulking or en masse failure to blame?. Geophysical Research Letters, 2017, 44, 7310-7319.	4.0	72
3	Landslides after wildfire: initiation, magnitude, and mobility. Landslides, 2020, 17, 2631-2641.	5.4	71
4	Which way do you lean? Using slope aspect variations to understand Critical Zone processes and feedbacks. Earth Surface Processes and Landforms, 2018, 43, 1133-1154.	2.5	70
5	Elucidating the role of vegetation in the initiation of rainfallâ€induced shallow landslides: Insights from an extreme rainfall event in the Colorado Front Range. Geophysical Research Letters, 2016, 43, 9084-9092.	4.0	62
6	Evolution of Debrisâ€Flow Initiation Mechanisms and Sediment Sources During a Sequence of Postwildfire Rainstorms. Journal of Geophysical Research F: Earth Surface, 2019, 124, 1572-1595.	2.8	58
7	Controls on the spacing and geometry of rill networks on hillslopes: Rain splash detachment, initial hillslope roughness, and the competition between fluvial and colluvial transport. Journal of Geophysical Research F: Earth Surface, 2013, 118, 241-256.	2.8	48
8	The influence of vegetation on debris-flow initiation during extreme rainfall in the northern Colorado Front Range. Geology, 2016, 44, 823-826.	4.4	41
9	Incorporating spatially heterogeneous infiltration capacity into hydrologic models with applications for simulating postâ€wildfire debris flow initiation. Hydrological Processes, 2018, 32, 1173-1187.	2.6	38
10	Estimating post-fire debris-flow hazards prior to wildfire using a statistical analysis of historical distributions of fire severity from remote sensing data. International Journal of Wildland Fire, 2018, 27, 595.	2.4	37
11	Development of topographic asymmetry: Insights from dated cinder cones in the western United States. Journal of Geophysical Research F: Earth Surface, 2014, 119, 1725-1750.	2.8	35
12	Thresholds for postâ€wildfire debris flows: Insights from the Pinal Fire, Arizona, USA. Earth Surface Processes and Landforms, 2020, 45, 1349-1360.	2.5	34
13	Constraining the relative importance of raindropâ€and flowâ€driven sediment transport mechanisms in postwildfire environments and implications for recovery time scales. Journal of Geophysical Research F: Earth Surface, 2016, 121, 2211-2237.	2.8	33
14	Developing and Testing Physically Based Triggering Thresholds for Runoffâ€Generated Debris Flows. Geophysical Research Letters, 2019, 46, 8830-8839.	4.0	32
15	Progress in simplifying hydrologic model parameterization for broad applications to postâ€wildfire flooding and debrisâ€flow hazards. Earth Surface Processes and Landforms, 2019, 44, 3078-3092.	2.5	29
16	Calibration and testing of upland hillslope evolution models in a dated landscape: Banco Bonito, New Mexico. Journal of Geophysical Research, 2011, 116, .	3.3	28
17	Postwildfire Soilâ€Hydraulic Recovery and the Persistence of Debris Flow Hazards. Journal of Geophysical Research F: Earth Surface, 2021, 126, e2021JF006091.	2.8	28
18	Amplification of postwildfire peak flow by debris. Geophysical Research Letters, 2016, 43, 8545-8553.	4.0	27

#	Article	IF	Citations
19	What drives spatial variability in rainfall intensity-duration thresholds for post-wildfire debris flows? Insights from the 2018 Buzzard Fire, NM, USA. Landslides, 2020, 17, 2385-2399.	5.4	27
20	The Influence of Frost Weathering on Debris Flow Sediment Supply in an Alpine Basin. Journal of Geophysical Research F: Earth Surface, 2020, 125, e2019JF005369.	2.8	24
21	Impacts of successive wildfire on soil hydraulic properties: Implications for debris flow hazards and system resilience. Earth Surface Processes and Landforms, 2019, 44, 2236-2250.	2.5	23
22	Movement of Sediment Through a Burned Landscape: Sediment Volume Observations and Model Comparisons in the San Gabriel Mountains, California, USA. Journal of Geophysical Research F: Earth Surface, 2021, 126, e2020JF006053.	2.8	23
23	Hydrogeomorphic Recovery and Temporal Changes in Rainfall Thresholds for Debris Flows Following Wildfire. Journal of Geophysical Research F: Earth Surface, 2021, 126, e2021JF006374.	2.8	21
24	How do vegetation bands form in dry lands? Insights from numerical modeling and field studies in southern Nevada, USA. Journal of Geophysical Research, 2012, 117, .	3.3	16
25	Extreme Precipitation Across Adjacent Burned and Unburned Watersheds Reveals Impacts of Low Severity Wildfire on Debrisâ€Flow Processes. Journal of Geophysical Research F: Earth Surface, 2021, 126, e2020JF005997.	2.8	15
26	The timing and magnitude of changes to Hortonian overland flow at the watershed scale during the postâ€fire recovery process. Hydrological Processes, 2021, 35, e14208.	2.6	15
27	Coevolution of soil and topography across a semiarid cinder cone chronosequence. Catena, 2017, 156, 338-352.	5.0	12
28	The Impact of Sediment Supply on the Initiation and Magnitude of Runoffâ€Generated Debris Flows. Geophysical Research Letters, 2020, 47, e2020GL087643.	4.0	12
29	A progressive flow-routing model for rapid assessment of debris-flow inundation. Landslides, 2022, 19, 2055-2073.	5.4	11
30	Temporal changes in rainfall intensityâ€“duration thresholds for post-wildfire flash floods in southern California. Natural Hazards and Earth System Sciences, 2022, 22, 361-376.	3.6	9
31	Modeling the Dynamics of Dense Pyroclastic Flows on Venus: Insights Into Pyroclastic Eruptions. Journal of Geophysical Research E: Planets, 2021, 126, e2021JE006943.	3.6	7
32	Time Since Burning and Rainfall Characteristics Impact Post-Fire Debris-Flow Initiation and Magnitude. Environmental and Engineering Geoscience, 2021, 27, 43-56.	0.9	6
33	Controls on the Spatial Distribution of Nearâ€Surface Pyrogenic Carbon on Hillslopes 1 Year Following Wildfire. Journal of Geophysical Research F: Earth Surface, 2021, 126, e2020JF005996.	2.8	5
34	Wildfire and earth surface processes. Earth Surface Processes and Landforms, 2021, 46, 1099.	2.5	2
35	RAINFALL INTENSITY-DURATION THRESHOLDS FOR POST-WILDFIRE DEBRIS FLOWS IN ARIZONA. , 2018, , .		1