Erkan Istanbulluoglu

List of Publications by Year in descending order

64 papers	3,354 citations	126907 33 h-index	144013 57 g-index
65 all docs	65 docs citations	65 times ranked	4066 citing authors

#	Article	IF	Citations
1	Channel Conveyance Variability can Influence Flood Risk as Much as Streamflow Variability in Western Washington State. Water Resources Research, 2022, 58, .	4.2	9
2	A New Hydrologic Sensitivity Framework for Unsteadyâ€State Responses to Climate Change and Its Application to Catchments With Croplands in Illinois. Water Resources Research, 2021, 57, e2020WR027762.	4.2	7
3	Breaking Down the Computational Barriers to Realâ€Time Urban Flood Forecasting. Geophysical Research Letters, 2021, 48, e2021GL093585.	4.0	21
4	A Channel Network Model for Sediment Dynamics Over Watershed Management Time Scales. Journal of Advances in Modeling Earth Systems, 2020, 12, e2019MS001852.	3.8	6
5	Morphometrics of China's Loess Plateau: The spatial legacy of tectonics, climate, and loess deposition history. Geomorphology, 2020, 354, 107043.	2.6	16
6	Short communication: LandlabÂv2.0: a software package for Earth surface dynamics. Earth Surface Dynamics, 2020, 8, 379-397.	2.4	56
7	Ecohydrology Controls the Geomorphic Response to Climate Change. Geophysical Research Letters, 2019, 46, 8852-8861.	4.0	14
8	River Bed Elevation Variability Reflects Sediment Supply, Rather Than Peak Flows, in the Uplands of Washington State. Water Resources Research, 2019, 55, 6795-6810.	4.2	28
9	Deterministic chaotic dynamics in soil moisture across Nebraska. Journal of Hydrology, 2019, 578, 124048.	5.4	9
10	Twenty-three unsolved problems in hydrology (UPH) â€“ a community perspective. Hydrological Sciences Journal, 2019, 64, 1141-1158.	2.6	474
11	Enabling Collaborative Numerical Modeling in Earth Sciences using Knowledge Infrastructure. Environmental Modelling and Software, 2019, 120, 104424.	4.5	19
12	Automated retrieval, preprocessing, and visualization of gridded hydrometeorology data products for spatial-temporal exploratory analysis and intercomparison. Environmental Modelling and Software, 2019, 116, 119-130.	4.5	8
13	A new approach to mapping landslide hazards: a probabilistic integration of empirical and physically based models in the North Cascades of Washington, USA. Natural Hazards and Earth System Sciences, 2019, 19, 2477-2495.	3.6	15
14	A Nullâ€Parameter Formula of Storageâ€Evapotranspiration Relationship at Catchment Scale and its Application for a New Hydrological Model. Journal of Geophysical Research D: Atmospheres, 2018, 123, 2082-2097.	3.3	12
15	The role of vegetation on gully erosion stabilization at a severely degraded landscape: A case study from Calhoun Experimental Critical Zone Observatory. Geomorphology, 2018, 308, 25-39.	2.6	39
16	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
17	Is there a limit to bioretention effectiveness? Evaluation of stormwater bioretention treatment using a lumped urban ecohydrologic model and ecologically based design criteria. Hydrological Processes, 2018, 32, 2318-2334.	2.6	11
18	A hydroclimatological approach to predicting regional landslide probability using Landlab. Earth Surface Dynamics, 2018, 6, 49-75.	2.4	20

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19	Glacier Recession and the Response of Summer Streamflow in the Pacific Northwest United States, 1960â€“2099. Water Resources Research, 2018, 54, 6202-6225.	4.2	48
20	An Ecohydrological Cellular Automata Model Investigation of Juniper Tree Encroachment in a Western North American Landscape. Ecosystems, 2017, 20, 1104-1123.	3.4	9
21	Creative computing with Landlab: an open-source toolkit for building, coupling, and exploring two-dimensional numerical models of Earth-surface dynamics. Earth Surface Dynamics, 2017, 5, 21-46.	2.4	148
22	The Landlab v1.0 OverlandFlow component: a Python tool for computing shallow-water flow across watersheds. Geoscientific Model Development, 2017, 10, 1645-1663.	3.6	40
23	CellLab-CTS 2015: continuous-time stochastic cellular automaton modeling using Landlab. Geoscientific Model Development, 2016, 9, 823-839.	3.6	12
24	Implications of decadal to century scale glacioâ€hydrological change for water resources of the Hood River basin, OR, USA. Hydrological Processes, 2016, 30, 4314-4329.	2.6	20
25	Mechanisms of shrub encroachment into Northern Chihuahuan Desert grasslands and impacts of climate change investigated using a cellular automata model. Advances in Water Resources, 2016, 91, 46-62.	3.8	38
26	Energy and water balance response of a vegetated wetland to herbicide treatment of invasive Phragmites australis. Journal of Hydrology, 2016, 539, 290-303.	5.4	17
27	Improving the theoretical underpinnings of processâ€based hydrologic models. Water Resources Research, 2016, 52, 2350-2365.	4.2	80
28	Landscape Evolution Models and Ecohydrologic Processes. , 2016, , 135-179.		1
29	FLOODING AND EROSION AFTER THE BUFFALO CREEK FIRE: A MODELING APPROACH USING LANDLAB. , 2016, , .		1
30	Ecohydrologic role of solar radiation on landscape evolution. Water Resources Research, 2015, 51, 1127-1157.	4.2	63
31	Solar radiation as a global driver of hillslope asymmetry: Insights from an ecogeomorphic landscape evolution model. Water Resources Research, 2015, 51, 9843-9861.	4.2	24
32	Predicting glacioâ€hydrologic change in the headwaters of the <scp>Z</scp>ongo <scp>R</scp>iver, <scp>C</scp>ordillera <scp>R</scp>eal, <scp>B</scp>olivia. Water Resources Research, 2015, 51, 9029-9052.	4.2	28
33	Impacts of devegetation on the temporal evolution of soil saturated hydraulic conductivity in a vegetated sand dune area. Environmental Earth Sciences, 2015, 73, 7651-7660.	2.7	7
34	Impact of climate change and human activities on runoff in the Weihe River Basin, China. Quaternary International, 2015, 380-381, 169-179.	1.5	182
35	Climate change and Ecotone boundaries: Insights from a cellular automata ecohydrology model in a Mediterranean catchment with topography controlled vegetation patterns. Advances in Water Resources, 2014, 73, 159-175.	3.8	32
36	A geomorphic perspective on terrainâ€modulated organization of vegetation productivity: analysis in two semiarid grassland ecosystems in Southwestern United States. Ecohydrology, 2014, 7, 242-257.	2.4	13

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37	A hydro-climatological lake classification model and its evaluation using global data. Journal of Hydrology, 2013, 486, 376-383.	5.4	17
38	On the observed ecohydrologic dynamics of a semiarid basin with aspect-delimited ecosystems. Water Resources Research, 2013, 49, 8263-8284.	4.2	54
39	Are climatic or land cover changes the dominant cause of runoff trends in the Upper Mississippi River Basin?. Geophysical Research Letters, 2013, 40, 1104-1110.	4.0	97
40	Modeling the ecohydrological role of aspectâ€controlled radiation on treeâ€grassâ€shrub coexistence in a semiarid climate. Water Resources Research, 2013, 49, 2872-2895.	4.2	46
41	tRIBS-Erosion: A parsimonious physically-based model for studying catchment hydro-geomorphic response. Catena, 2012, 92, 216-231.	5.0	34
42	Interpretation of hydrologic trends from a water balance perspective: The role of groundwater storage in the Budyko hypothesis. Water Resources Research, 2012, 48, .	4.2	117
43	On evapotranspiration and shallow groundwater fluctuations: A Fourierâ€based improvement to the White method. Water Resources Research, 2012, 48, .	4.2	46
44	Evaluation of ecohydrologic model parsimony at local and regional scales in a semiarid grassland ecosystem. Ecohydrology, 2012, 5, 121-142.	2.4	42
45	Nutrient Loss Following Phragmites australis Removal in Controlled Soil Mesocosms. Water, Air, and Soil Pollution, 2012, 223, 3333-3344.	2.4	3
46	Quantifying the impact of groundwater depth on evapotranspiration in a semi-arid grassland region. Hydrology and Earth System Sciences, 2011, 15, 787-806.	4.9	104
47	Seasonal energy and water balance of a Phragmites australis-dominated wetland in the Republican River basin of south-central Nebraska (USA). Journal of Hydrology, 2011, 408, 19-34.	5.4	39
48	The implications of geology, soils, and vegetation on landscape morphology: Inferences from semi-arid basins with complex vegetation patterns in Central New Mexico, USA. Geomorphology, 2010, 116, 246-263.	2.6	62
49	Modeling Catchment Evolution: From Decoding Geomorphic Processes Signatures toward Predicting Impacts of Climate Change. Geography Compass, 2009, 3, 1125-1150.	2.7	11
50	An Ecoâ€hydroâ€geomorphic Perspective to Modeling the Role of Climate in Catchment Evolution. Geography Compass, 2009, 3, 1151-1175.	2.7	13
51	On the role of groundwater and soil texture in the regional water balance: An investigation of the Nebraska Sand Hills, USA. Water Resources Research, 2009, 45, .	4.2	98
52	Ecoâ€geomorphic implications of hillslope aspect: Inferences from analysis of landscape morphology in central New Mexico. Geophysical Research Letters, 2008, 35, .	4.0	77
53	Ecohydrological response to a geomorphically significant flood event in a semiarid catchment with contrasting ecosystems. Geophysical Research Letters, 2007, 34, .	4.0	41
54	A physically-based method for removing pits in digital elevation models. Advances in Water Resources, 2007, 30, 2151-2158.	3.8	98

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55	Development of gullies on the landscape: A model of headcut retreat resulting from plunge pool erosion. Journal of Geophysical Research, 2006, 111, .	3.3	79
56	On the dynamics of soil moisture, vegetation, and erosion: Implications of climate variability and change. Water Resources Research, 2006, 42, .	4.2	112
57	Headwater channel dynamics in semiarid rangelands, Colorado high plains, USA. Bulletin of the Geological Society of America, 2006, 118, 959-974.	3.3	56
58	Implications of bank failures and fluvial erosion for gully development: Field observations and modeling. Journal of Geophysical Research, 2005, 110, .	3.3	55
59	Vegetation-modulated landscape evolution: Effects of vegetation on landscape processes, drainage density, and topography. Journal of Geophysical Research, 2005, 110, .	3.3	229
60	Reply to comment by Jonathan J. Rhodes on â€œModeling of the interactions between forest vegetation, disturbances, and sediment yieldsâ€• Journal of Geophysical Research, 2005, 110, .	3.3	1
61	Modeling of the interactions between forest vegetation, disturbances, and sediment yields. Journal of Geophysical Research, 2004, 109, .	3.3	70
62	A sediment transport model for incision of gullies on steep topography. Water Resources Research, 2003, 39, .	4.2	61
63	A probabilistic approach for channel initiation. Water Resources Research, 2002, 38, 61-1-61-14.	4.2	92
64	Short communication: Landlab v2.0: A software package for Earth surface dynamics. , 0, , .		2