Kelin Whipple

List of Publications by Year
in descending order

83
papers

16,818
citations

32410
55
h-index

68831
81
g-index

85
all docs

85
docs citations

85
times ranked

7286
citing authors

#	Article	IF	Citations
1	Bedrock Rivers. , 2022, , 865-903.		8
2	Low variability runoff inhibits coupling of climate, tectonics, and topography in the Greater Caucasus. Earth and Planetary Science Letters, 2022, 584, 117525.	1.8	12
3	Active deformation and Plio-Pleistocene fluvial reorganization of the western Kura foldâ€"thrust belt, Georgia: implications for the evolution of the Greater Caucasus Mountains. Geological Magazine, 2021, 158, 583-597.	0.9	7
4	Late Quaternary Tectonics along the Peri-Adriatic Sector of the Apenninic Chain (Central-Southern) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 Lithosphere, 2021, 2021, .	0.6	6
5	Existence of a continental-scale river system in eastern Tibet during the late Cretaceousâ€"early Palaeogene. Nature Communications, 2021, 12, 7231.	5.8	28
6	Influence of Spatial Rainfall Gradients on River Longitudinal Profiles and the Topographic Expression of Spatially and Temporally Variable Climates in Mountain Landscapes. Journal of Geophysical Research F: Earth Surface, 2021, 126, .	1.0	11
7	Resistant rock layers amplify cosmogenicallyâ€determined erosion rates. Earth Surface Processes and Landforms, 2020, 45, 312-330.	1.2	11
8	Climate controls on erosion in tectonically active landscapes. Science Advances, 2020, 6, .	4.7	75
9	Did Martian valley networks substantially modify the landscape?. Earth and Planetary Science Letters, 2020, 547, 116482.	1.8	12
10	Amphitheatreâ€headed canyons of Southern Utah: Stratigraphic control of canyon morphology. Earth Surface Processes and Landforms, 2020, 45, 3607-3622.	1.2	5
11	The thermochronologic record of erosion and magmatism in the Canyonlands region of the Colorado Plateau. Numerische Mathematik, 2019, 319, 339-380.	0.7	21
12	Strength matters: Resisting erosion across upland landscapes. Earth Surface Processes and Landforms, 2019, 44, 1748-1754.	1.2	13
13	Short communication: The Topographic Analysis Kit (TAK) for TopoToolbox. Earth Surface Dynamics, 2019, 7, 87-95.	1.0	103
14	Criteria and tools for determining drainage divide stability. Earth and Planetary Science Letters, 2018, 493, 102-117.	1.8	144
15	Timescales of landscape response to divide migration and drainage capture: Implications for the role of divide mobility in landscape evolution. Journal of Geophysical Research F: Earth Surface, 2017, 122, 248-273.	1.0	151
16	Preservation or piracy: Diagnosing low-relief, high-elevation surface formation mechanisms. Geology, 2017, 45, 91-94.	2.0	89
17	Complexities of landscape evolution during incision through layered stratigraphy with contrasts in rock strength. Earth Surface Processes and Landforms, 2016, 41, 1736-1757.	1.2	102
18	Precipitation and evapotranspiration controls on daily runoff variability in the contiguous United States and Puerto Rico. Journal of Geophysical Research F: Earth Surface, 2016, 121, 128-145.	1.0	53

#	Article	IF	Citations
19	Active shortening within the Himalayan orogenic wedge implied by the 2015 Gorkha earthquake. Nature Geoscience, 2016, 9, 711-716.	5.4	84
20	Characterization of slow slip rate faults in humid areas: Cimandiri fault zone, Indonesia. Journal of Geophysical Research F: Earth Surface, 2016, 121, 2287-2308.	1.0	53
21	Decoupling of modern shortening rates, climate, and topography in the Caucasus. Earth and Planetary Science Letters, 2016, 449, 282-294.	1.8	37
22	Constraints on the tectonic and landscape evolution of the Bhutan Himalaya from thermochronometry. Tectonics, 2015, 34, 1329-1347.	1.3	31
23	The role of waterfalls and knickzones in controlling the style and pace of landscape adjustment in the western San Gabriel Mountains, California. Bulletin of the Geological Society of America, 2015, 127, 539-559.	1.6	67
24	Evidence for Pleistocene Low-Angle Normal Faulting in the Annapurna-Dhaulagiri Region, Nepal. Journal of Geology, 2015, 123, 133-151.	0.7	16
25	Transition from a singly vergent to doubly vergent wedge in a young orogen: The Greater Caucasus. Tectonics, 2014, 33, 2077-2101.	1.3	83
26	Diagnosing climatic and tectonic controls on topography: Eastern flank of the northern Bolivian Andes. Lithosphere, 2014, 6, 230-250.	0.6	67
27	Can erosion drive tectonics?. Science, 2014, 346, 918-919.	6.0	26
28	Distribution of active faulting along orogenic wedges: Minimum-work models and natural analogue. Journal of Structural Geology, 2014, 66, 237-247.	1.0	17
29	Evidence for Plioâ€Pleistocene northâ€south extension at the southern margin of the Tibetan Plateau, Nyalam region. Tectonics, 2013, 32, 317-333.	1.3	27
30	Differential Movement across Byrd Glacier, Antarctica, as indicated by Apatite (Uâ€"Th)/He thermochronology and geomorphological analysis. Geological Society Special Publication, 2013, 381, 37-43.	0.8	2
31	Soil production limits and the transition to bedrock-dominated landscapes. Nature Geoscience, 2012, 5, 210-214.	5.4	156
32	Expression of active tectonics in erosional landscapes. Journal of Structural Geology, 2012, 44, 54-75.	1.0	761
33	Chemical weathering response to tectonic forcing: A soils perspective from the San Gabriel Mountains, California. Earth and Planetary Science Letters, 2012, 323-324, 40-49.	1.8	126
34	Hillslope response to tectonic forcing in threshold landscapes. Earth Surface Processes and Landforms, 2012, 37, 855-865.	1.2	102
35	The influence of erosion thresholds and runoff variability on the relationships among topography, climate, and erosion rate. Journal of Geophysical Research, 2011, 116, .	3.3	223
36	Orogenic-wedge deformation and potential for great earthquakes in the central Andean backarc. Nature Geoscience, 2011, 4, 380-383.	5.4	77

#	Article	IF	Citations
37	Landscape form and millennial erosion rates in the San Gabriel Mountains, CA. Earth and Planetary Science Letters, 2010, 289, 134-144.	1.8	400
38	Evolution of vertical knickpoints (waterfalls) with resistant caprock: Insights from numerical modeling. Journal of Geophysical Research, 2010, 115, .	3.3	139
39	Beyond threshold hillslopes: Channel adjustment to base-level fall in tectonically active mountain ranges. Geology, 2009, 37, 579-582.	2.0	444
40	Landscape texture set to scale. Nature, 2009, 460, 468-469.	13.7	8
41	The influence of climate on the tectonic evolution of mountain belts. Nature Geoscience, 2009, 2, 97-104.	5.4	466
42	Topography reveals seismic hazard. Nature Geoscience, 2008, 1, 485-487.	5.4	98
43	A Late Miocene acceleration of exhumation in the Himalayan crystalline core. Earth and Planetary Science Letters, 2008, 269, 1-10.	1.8	18
44	Ice thickness and topographic relief in glaciated landscapes of the western USA. Geomorphology, 2008, 97, 35-51.	1.1	19
45	Feedbacks among climate, erosion, and tectonics in a critical wedge orogen. Numerische Mathematik, 2008, 308, 815-842.	0.7	55
46	Uplift of the western margin of the Andean plateau revealed from canyon incision history, southern Peru. Geology, 2007, 35, 523.	2.0	142
47	The influence of large landslides on river incision in a transient landscape: Eastern margin of the Tibetan Plateau (Sichuan, China). Bulletin of the Geological Society of America, 2007, 119, 1462-1476.	1.6	222
48	Predictions of steady state and transient landscape morphology using sediment-flux-dependent river incision models. Journal of Geophysical Research, 2007, 112, .	3.3	110
49	Feedbacks between erosion and sediment transport in experimental bedrock channels. Earth Surface Processes and Landforms, 2007, 32, 1048-1062.	1.2	126
50	Can springs cut canyons into rock?. Journal of Geophysical Research, 2006, 111, .	3.3	153
51	Assessing the relative efficiency of fluvial and glacial erosion through simulation of fluvial landscapes. Geomorphology, 2006, 75, 283-299.	1.1	50
52	Knickpoint initiation and distribution within fluvial networks: 236 waterfalls in the Waipaoa River, North Island, New Zealand. Geomorphology, 2006, 82, 16-38.	1.1	465
53	Tectonics from topography: Procedures, promise, and pitfalls. , 2006, , .		410
54	Active out-of-sequence thrust faulting in the central Nepalese Himalaya. Nature, 2005, 434, 1008-1011.	13.7	269

#	Article	IF	Citations
55	Erosion rates driven by channel network incision in the Bolivian Andes. Earth Surface Processes and Landforms, 2005, 30, 1007-1024.	1.2	224
56	Surface uplift, tectonics, and erosion of eastern Tibet from large-scale drainage patterns. Tectonics, 2004, 23, n/a-n/a.	1.3	682
57	BEDROCK RIVERS AND THE GEOMORPHOLOGY OF ACTIVE OROGENS. Annual Review of Earth and Planetary Sciences, 2004, 32, 151-185.	4.6	884
58	Quaternary deformation, river steepening, and heavy precipitation at the front of the Higher Himalayan ranges. Earth and Planetary Science Letters, 2004, 220, 379-389.	1.8	270
59	Implications of the shear stress river incision model for the timescale of postorogenic decay of topography. Journal of Geophysical Research, 2003, 108, .	3.3	115
60	Distribution of active rock uplift along the eastern margin of the Tibetan Plateau: Inferences from bedrock channel longitudinal profiles. Journal of Geophysical Research, 2003, 108, .	3.3	395
61	Channel response to tectonic forcing: field analysis of stream morphology and hydrology in the Mendocino triple junction region, northern California. Geomorphology, 2003, 53, 97-127.	1.1	200
62	Has focused denudation sustained active thrusting at the Himalayan topographic front?. Geology, 2003, 31, 861.	2.0	332
63	Drainage basins and channel incision on Mars. Proceedings of the National Academy of Sciences of the United States of America, 2002, 99, 1780-1783.	3.3	96
64	Topographic outcomes predicted by stream erosion models: Sensitivity analysis and intermodel comparison. Journal of Geophysical Research, 2002, 107, ETG 1-1-ETG 1-16.	3.3	332
65	Implications of sediment-flux-dependent river incision models for landscape evolution. Journal of Geophysical Research, 2002, 107, ETG 3-1.	3.3	500
66	Late Cenozoic evolution of the eastern margin of the Tibetan Plateau: Inferences from40Ar/39Ar and (U-Th)/He thermochronology. Tectonics, 2002, 21, 1-1-1-20.	1.3	484
67	Glacial erosion and relief production in the Eastern Sierra Nevada, California. Geomorphology, 2002, 42, 1-24.	1.1	211
68	Southward extrusion of Tibetan crust and its effect on Himalayan tectonics. Tectonics, 2001, 20, 799-809.	1.3	226
69	Quantifying differential rock-uplift rates via stream profile analysis. Geology, 2001, 29, 415.	2.0	631
70	Fluvial Landscape Response Time: How Plausible Is Steady-State Denudation?. Numerische Mathematik, 2001, 301, 313-325.	0.7	381
71	Neotectonics of the Thakkhola graben and implications for recent activity on the South Tibetan fault system in the central Nepal Himalaya. Bulletin of the Geological Society of America, 2001, 113, 222-240.	1.6	114
72	Experimental Study of the Grainâ€Flow, Fluidâ€Mud Transition in Debris Flows. Journal of Geology, 2001, 109, 427-447.	0.7	138

#	Article	IF	Citations
73	Neotectonics of the Min Shan, China: Implications for mechanisms driving Quaternary deformation along the eastern margin of the Tibetan Plateau. Bulletin of the Geological Society of America, 2000, 112, 375-393.	1.6	150
74	River incision into bedrock: Mechanics and relative efficacy of plucking, abrasion, and cavitation. Bulletin of the Geological Society of America, 2000, 112, 490-503.	1.6	577
75	Landscape response to tectonic forcing: Digital elevation model analysis of stream profiles in the Mendocino triple junction region, northern California. Bulletin of the Geological Society of America, 2000, 112, 1250-1263.	1.6	739
76	Rates and processes of bedrock incision by the Upper Ukak River since the 1912 Novarupta ash flow in the Valley of Ten Thousand Smokes, Alaska. Geology, 2000, 28, 835-838.	2.0	8
77	Geomorphic limits to climate-induced increases in topographic relief. Nature, 1999, 401, 39-43.	13.7	445
78	Dynamics of the stream-power river incision model: Implications for height limits of mountain ranges, landscape response timescales, and research needs. Journal of Geophysical Research, 1999, 104, 17661-17674.	3.3	1,588
79	Hydroplaning of subaqueous debris flows. Bulletin of the Geological Society of America, 1998, 110, 387-394.	1.6	339
80	Openâ€Channel Flow of Bingham Fluids: Applications in Debrisâ€Flow Research. Journal of Geology, 1997, 105, 243-262.	0.7	69
81	Tectonic control of fan size: the importance of spatially variable subsidence rates. Basin Research, 1996, 8, 351-366.	1.3	88
82	A submersible study in the western Blanco fracture Zone, N.E. Pacific: Structure and evolution during the last 1.6 Ma. Marine Geophysical Researches, 1995, 17, 399-430.	0.5	35
83	The influence of debris-flow rheology on fan morphology, Owens Valley, California. Bulletin of the Geological Society of America, 1992, 104, 887-900.	1.6	165