

# Douglas Burbank

## List of Publications by Year in descending order

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126  
papers

17,021  
citations

19657

61  
h-index

15266

126  
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127  
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127  
docs citations

127  
times ranked

14259  
citing authors

#	ARTICLE	IF	CITATIONS
1	The Shuttle Radar Topography Mission. <i>Reviews of Geophysics</i> , 2007, 45, .	23.0	5,113
2	Bedrock incision, rock uplift and threshold hillslopes in the northwestern Himalayas. <i>Nature</i> , 1996, 379, 505-510.	27.8	986
3	Decoupling of erosion and precipitation in the Himalayas. <i>Nature</i> , 2003, 426, 652-655.	27.8	497
4	Stratigraphic evidence for an early collision between northwest India and Asia. <i>Nature</i> , 1995, 373, 55-58.	27.8	459
5	Climatic Limits on Landscape Development in the Northwestern Himalaya. <i>Science</i> , 1997, 276, 571-574.	12.6	371
6	Tectonic and lithologic controls on bedrock channel profiles and processes in coastal California. <i>Journal of Geophysical Research</i> , 2004, 109, .	3.3	359
7	The growth of northeastern Tibet and its relevance to large-scale continental geodynamics: A review of recent studies. <i>Tectonics</i> , 2013, 32, 1358-1370.	2.8	350
8	Middle-late Miocene (>10 Ma) formation of the Main Boundary thrust in the western Himalaya. <i>Geology</i> , 1995, 23, 423.	4.4	254
9	Causes of recent Himalayan uplift deduced from deposited patterns in the Ganges basin. <i>Nature</i> , 1992, 357, 680-683.	27.8	251
10	Slip rate gradients along the eastern Kunlun fault. <i>Tectonics</i> , 2007, 26, n/a-n/a.	2.8	249
11	Effects of bedrock landslides on cosmogenically determined erosion rates. <i>Earth and Planetary Science Letters</i> , 2005, 237, 480-498.	4.4	242
12	Middle Miocene reorganization of deformation along the northeastern Tibetan Plateau. <i>Geology</i> , 2011, 39, 359-362.	4.4	218
13	A study of the 1999 monsoon rainfall in a mountainous region in central Nepal using TRMM products and rain gauge observations. <i>Geophysical Research Letters</i> , 2000, 27, 3683-3686.	4.0	214
14	Interactions of growing folds and coeval depositional systems. <i>Basin Research</i> , 1996, 8, 199-223.	2.7	213
15	Rainfall thresholds for landsliding in the Himalayas of Nepal. <i>Geomorphology</i> , 2004, 63, 131-143.	2.6	209
16	A 900 k.y. record of strath terrace formation during glacial-interglacial transitions in northwest China. <i>Geology</i> , 2003, 31, 957.	4.4	191
17	Rift basins and supradetachment basins: intracontinental extensional end-members. <i>Basin Research</i> , 1995, 7, 109-127.	2.7	173
18	Signatures of mountain building: Detrital zircon U/Pb ages from northeastern Tibet. <i>Geology</i> , 2007, 35, 239.	4.4	169

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19	Dominance of tectonics over climate in Himalayan denudation. <i>Geology</i> , 2014, 42, 243-246.	4.4	161
20	Modern erosion rates in the High Himalayas of Nepal. <i>Earth and Planetary Science Letters</i> , 2008, 267, 482-494.	4.4	159
21	Rates of erosion and their implications for exhumation. <i>Mineralogical Magazine</i> , 2002, 66, 25-52.	1.4	158
22	Reduced Himalayan sediment production 8 Myr ago despite an intensified monsoon. <i>Nature</i> , 1993, 364, 48-50.	27.8	154
23	Thrust-fault growth and segment linkage in the active Ostler fault zone, New Zealand. <i>Journal of Structural Geology</i> , 2005, 27, 1528-1546.	2.3	144
24	Intermontane-basin development in the past 4 Myr in the north-west Himalaya. <i>Nature</i> , 1982, 298, 432-436.	27.8	143
25	Chronology and tectonic controls of Late Tertiary deposition in the southwestern Tian Shan foreland, NW China. <i>Basin Research</i> , 2007, 19, 599-632.	2.7	141
26	The late cenozoic chronologic and stratigraphic development of the Kashmir intermontane basin, Northwestern Himalaya. <i>Palaeogeography, Palaeoclimatology, Palaeoecology</i> , 1983, 43, 205-235.	2.3	139
27	Impulsive alluviation during early Holocene strengthened monsoons, central Nepal Himalaya. <i>Geology</i> , 2002, 30, 911.	4.4	128
28	Landscape disequilibrium on 1000-10,000 year scales Marsyandi River, Nepal, central Himalaya. <i>Geomorphology</i> , 2004, 58, 223-241.	2.6	125
29	Age and palaeoclimatic significance of the loess of Lanzhou, north China. <i>Nature</i> , 1985, 316, 429-431.	27.8	119
30	U-Pb zircon ages as a sediment mixing tracer in the Nepal Himalaya. <i>Earth and Planetary Science Letters</i> , 2005, 235, 244-260.	4.4	114
31	Bedrock fracturing, threshold hillslopes, and limits to the magnitude of bedrock landslides. <i>Earth and Planetary Science Letters</i> , 2010, 297, 577-586.	4.4	112
32	Dynamic fluvial systems and gravel progradation in the Himalayan foreland. <i>Bulletin of the Geological Society of America</i> , 2000, 112, 394-412.	3.3	111
33	Coeval hindward- and forward-imbricating thrusting in the south-central Pyrenees, Spain: Timing and rates of shortening and deposition. <i>Bulletin of the Geological Society of America</i> , 1992, 104, 3-17.	3.3	110
34	Geomorphic constraints on listric thrust faulting: Implications for active deformation in the Mackenzie Basin, South Island, New Zealand. <i>Journal of Geophysical Research</i> , 2007, 112, .	3.3	109
35	The chronology of the Eocene tectonic and stratigraphic development of the eastern Pyrenean foreland basin, northeast Spain. <i>Bulletin of the Geological Society of America</i> , 1992, 104, 1101-1120.	3.3	108
36	Construction of detrital mineral populations: insights from mixing of U-Pb zircon ages in Himalayan rivers. <i>Basin Research</i> , 2005, 17, 463-485.	2.7	107

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37	Temporal constraints and pulsed Late Cenozoic deformation during the structural disruption of the active Kashi foreland, northwest China. <i>Tectonics</i> , 2008, 27, .	2.8	100
38	Plio-Quaternary exhumation history of the central Nepalese Himalaya: 1. Apatite and zircon fission track and apatite [U-Th]/He analyses. <i>Tectonics</i> , 2007, 26, n/a-n/a.	2.8	95
39	Alpine landscape evolution dominated by cirque retreat. <i>Geology</i> , 2005, 33, 933.	4.4	94
40	Plio-Quaternary exhumation history of the central Nepalese Himalaya: 2. Thermokinematic and thermochronometer age prediction model. <i>Tectonics</i> , 2007, 26, n/a-n/a.	2.8	93
41	Thrusting and gravel progradation in foreland basins: A test of post-thrusting gravel dispersal. <i>Geology</i> , 1988, 16, 1143.	4.4	92
42	Channel width response to differential uplift. <i>Journal of Geophysical Research</i> , 2007, 112, .	3.3	90
43	Sequential late Cenozoic structural disruption of the northern Himalayan foredeep. <i>Nature</i> , 1984, 311, 114-118.	27.8	89
44	The chronology of intermontane-basin development in the northwestern Himalaya and the evolution of the Northwest Syntaxis. <i>Earth and Planetary Science Letters</i> , 1983, 64, 77-92.	4.4	87
45	Bedload-to-suspended load ratio and rapid bedrock incision from Himalayan Landslide-dam lake record. <i>Quaternary Research</i> , 2007, 68, 111-120.	1.7	86
46	Cenozoic shortening budget for the northeastern edge of the Tibetan Plateau: Is lower crustal flow necessary?. <i>Tectonics</i> , 2012, 31, .	2.8	86
47	Depositional and structural evolution of a foreland basin margin in a magnetostratigraphic framework: the eastern Swiss Molasse Basin. <i>International Journal of Earth Sciences</i> , 1999, 88, 253-275.	1.8	82
48	Climatic controls on hillslope angle and relief in the Himalayas. <i>Geology</i> , 2004, 32, 629.	4.4	81
49	Modelling detrital cooling-age populations: insights from two Himalayan catchments. <i>Basin Research</i> , 2003, 15, 305-320.	2.7	80
50	Late Cretaceous ophiolite obduction and Paleocene India-Asia collision in the westernmost Himalaya. <i>Geodinamica Acta</i> , 1996, 9, 114-144.	2.2	79
51	Late Miocene northward propagation of the northeast Pamir thrust system, northwest China. <i>Tectonics</i> , 2015, 34, 510-534.	2.8	77
52	Late Cenozoic structural and stratigraphic evolution of the northern Chinese Tian Shan foreland. <i>Basin Research</i> , 2010, 22, 249-269.	2.7	76
53	River response to an active fold-and-thrust belt in a convergent margin setting, North Island, New Zealand. <i>Geomorphology</i> , 2003, 49, 125-152.	2.6	74
54	Quantifying bedrock-fracture patterns within the shallow subsurface: Implications for rock mass strength, bedrock landslides, and erodibility. <i>Journal of Geophysical Research</i> , 2011, 116, .	3.3	71

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55	Ten-million-year history of a thrust sheet. <i>Bulletin of the Geological Society of America</i> , 1996, 108, 1608-1625.	3.3	70
56	Quantification of growth and lateral propagation of the Kashi anticline, southwest Chinese Tian Shan. <i>Journal of Geophysical Research</i> , 2007, 112, .	3.3	69
57	Magnetostratigraphic constraints on relationships between evolution of the central Swiss Molasse basin and Alpine orogenic events. <i>Bulletin of the Geological Society of America</i> , 1997, 109, 225-241.	3.3	68
58	Relative dating of Quaternary moraines, Rongbuk valley, Mount Everest, Tibet: Implications for an ice sheet on the Tibetan Plateau. <i>Quaternary Research</i> , 1991, 36, 1-18.	1.7	67
59	Unfolding: An inverse approach to fold kinematics. <i>Geology</i> , 1996, 24, 175.	4.4	67
60	Lacustrine Sedimentation in a Semiarid Alpine Setting: An Example from Ladakh, Northwestern Himalaya. <i>Quaternary Research</i> , 1989, 31, 332-350.	1.7	66
61	Alluvial sequence in the north piedmont of the Chinese Tian Shan over the past 550kyr and its relationship to climate change. <i>Palaeogeography, Palaeoclimatology, Palaeoecology</i> , 2010, 285, 343-353.	2.3	65
62	Growth of the South Pyrenean orogenic wedge. <i>Tectonics</i> , 1997, 16, 239-258.	2.8	64
63	Modern climate and erosion in the Himalaya. <i>Comptes Rendus - Geoscience</i> , 2012, 344, 610-626.	1.2	64
64	Chronology of glaciations in the Sierra Nevada, California, from $^{10}\text{Be}$ surface exposure dating. <i>Quaternary Science Reviews</i> , 2011, 30, 646-661.	3.0	63
65	Fluvial bevelling of topography controlled by lateral channel mobility and uplift rate. <i>Nature Geoscience</i> , 2016, 9, 706-710.	12.9	62
66	Equivalency of geologic and geodetic rates in contractional orogens: New insights from the Pamir Frontal Thrust. <i>Geophysical Research Letters</i> , 2012, 39, .	4.0	61
67	Frequency-dependent landscape response to climatic forcing. <i>Geophysical Research Letters</i> , 2013, 40, 859-863.	4.0	61
68	An automated knickzone selection algorithm (KZPicker) to analyze transient landscapes: Calibration and validation. <i>Journal of Geophysical Research F: Earth Surface</i> , 2017, 122, 1236-1261.	2.8	60
69	Quantified vertical motions and tectonic evolution of the SE Pyrenean foreland basin. <i>Geological Society Special Publication</i> , 1998, 134, 107-134.	1.3	57
70	Bedrock channel geometry along an orographic rainfall gradient in the upper Marsyandi River valley in central Nepal. <i>Journal of Geophysical Research</i> , 2007, 112, .	3.3	57
71	A Chronology of Late Holocene Glacier Fluctuations on Mount Rainier, Washington. <i>Arctic and Alpine Research</i> , 1981, 13, 369.	1.3	56
72	The stratigraphic evolution of the El Paso basin, southern California: Implications for the Miocene development of the Garlock fault and uplift of the Sierra Nevada. <i>Bulletin of the Geological Society of America</i> , 1988, 100, 12-28.	3.3	55

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73	Spatial variations in chemical weathering and CO <sub>2</sub> consumption in Nepalese High Himalayan catchments during the monsoon season. <i>Geochimica Et Cosmochimica Acta</i> , 2009, 73, 3148-3170.	3.9	55
74	Temporal variations in slip rate of the White Mountain Fault Zone, Eastern California. <i>Earth and Planetary Science Letters</i> , 2006, 248, 168-185.	4.4	54
75	Braided stream and flood-plain deposition in a rapidly aggrading basin: the Escanilla formation, Spanish Pyrenees. <i>Geological Society Special Publication</i> , 1993, 75, 177-194.	1.3	51
76	The magnetostratigraphy, fission-track dating, and stratigraphic evolution of the Peshawar intermontane basin, northern Pakistan. <i>Bulletin of the Geological Society of America</i> , 1985, 96, 539.	3.3	50
77	Quantification of three-dimensional folding using fluvial terraces: A case study from the Mushi anticline, northern margin of the Chinese Pamir. <i>Journal of Geophysical Research: Solid Earth</i> , 2013, 118, 4628-4647.	3.4	45
78	Rapid, long-term rates of denudation. <i>Geology</i> , 1991, 19, 1169.	4.4	44
79	Organic carbon exhumation and global warming during the early Himalayan collision. <i>Geology</i> , 1995, 23, 387.	4.4	44
80	Quaternary tectonic evolution of the Pamir-Tian Shan convergence zone, Northwest China. <i>Tectonics</i> , 2017, 36, 2748-2776.	2.8	43
81	Models of aggradation versus progradation in the Himalayan Foreland. <i>Geologische Rundschau: Zeitschrift Fur Allgemeine Geologie</i> , 1991, 80, 623-638.	1.3	41
82	Transient landscape evolution of basement-cored uplifts: Example of the Kyrgyz Range, Tian Shan. <i>Journal of Geophysical Research</i> , 2007, 112, .	3.3	40
83	Mio-Pliocene aridity in the south-central Andes associated with Southern Hemisphere cold periods. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2017, 114, 6474-6479.	7.1	39
84	Along-strike growth of the Ostler fault, New Zealand: Consequences for drainage deflection above active thrusts. <i>Tectonics</i> , 2010, 29, n/a-n/a.	2.8	38
85	Topographic control of asynchronous glacial advances: A case study from Annapurna, Nepal. <i>Geophysical Research Letters</i> , 2011, 38, n/a-n/a.	4.0	38
86	Temporally constrained tectonic rotations derived from magnetostratigraphic data: Implications for the initiation of the Garlock fault, California. <i>Geology</i> , 1987, 15, 1172.	4.4	37
87	Miocene biostratigraphy and biochronology of the Dove Spring Formation, Mojave Desert, California, and characterization of the Clarendonian mammal age (late Miocene) in California. <i>Bulletin of the Geological Society of America</i> , 1992, 104, 644-658.	3.3	36
88	Geomorphic and climatic controls on chemical weathering in the High Himalayas of Nepal. <i>Geomorphology</i> , 2010, 122, 205-210.	2.6	36
89	Pluton pinning of an active Miocene detachment fault system, eastern Mojave Desert, California. <i>Geology</i> , 1993, 21, 627.	4.4	35
90	Constraints on the late Quaternary glacial history of the Inylchek and Sary-Dzaz valleys from in situ cosmogenic <sup>10</sup> Be and <sup>26</sup> Al, eastern Kyrgyz Tian Shan. <i>Quaternary Science Reviews</i> , 2014, 101, 77-90.	3.0	33

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91	Late quaternary snowline reconstructions for the southern and central Sierra Nevada, California and a reassessment of the "Recess Peak Glaciation". Quaternary Research, 1991, 36, 294-306.	1.7	32
92	Spatiotemporal patterns of fault slip rates across the Central Sierra Nevada frontal fault zone. Earth and Planetary Science Letters, 2011, 301, 457-468.	4.4	32
93	Uplift and thermal history of the Teton Range (northwestern Wyoming) defined by apatite fission-track dating. Earth and Planetary Science Letters, 1993, 118, 295-309.	4.4	31
94	Coarse- versus fine-grain quartz OSL and cosmogenic <sup>10</sup> Be dating of deformed fluvial terraces on the northeast Pamir margin, northwest China. Quaternary Geochronology, 2018, 46, 1-15.	1.4	31
95	Controls on the lateral channel migration rate of braided channel systems in coarse non-cohesive sediment. Earth Surface Processes and Landforms, 2019, 44, 2823-2836.	2.5	31
96	U-Pb ages of detrital and volcanic zircons of the Toro Negro Formation, northwestern Argentina: Age, provenance and sedimentation rates. Journal of South American Earth Sciences, 2016, 70, 237-250.	1.4	29
97	Correlations of Climate, Mass Balances, and Glacial Fluctuations at Mount Rainer, Washington, U.S.A., Since 1850. Arctic and Alpine Research, 1982, 14, 137.	1.3	28
98	Anomalous cosmogenic <sup>3</sup> He production and elevation scaling in the high Himalaya. Earth and Planetary Science Letters, 2008, 265, 287-301.	4.4	28
99	Hinge-migrated fold-scarp model based on an analysis of bed geometry: A study from the Mingyao anticline, southern foreland of Chinese Tian Shan. Journal of Geophysical Research: Solid Earth, 2015, 120, 6592-6613.	3.4	28
100	Controls on intermontane basin filling, isolation and incision on the margin of the Puna Plateau, NW Argentina (~23°S). Basin Research, 2017, 29, 131-155.	2.7	26
101	Temporal changes in rock uplift rates of folds in the foreland of the Tian Shan and the Pamir from geodetic and geologic data. Geophysical Research Letters, 2017, 44, 10,977.	4.0	25
102	Magnetostratigraphic Chronology of Cretaceous-to-Eocene Thrust Belt Evolution, Central Utah, USA. Journal of Geology, 1994, 102, 181-196.	1.4	24
103	The magnetochronology of Barstovian mammals in southwestern Montana and implications for the initiation of Neogene crustal extension in the northern Rocky Mountains. Bulletin of the Geological Society of America, 1990, 102, 1093-1104.	3.3	23
104	Characteristic size of relief. Nature, 1992, 359, 483-484.	27.8	23
105	Three-dimensional GPR imaging of the Benmore anticline and step-over of the Ostler Fault, South Island, New Zealand. Geophysical Journal International, 2010, 180, 465-474.	2.4	23
106	Basin width control of faulting in the Naryn Basin, south-central Kyrgyzstan. Tectonics, 2011, 30, .	2.8	23
107	Active Bending-Moment Faulting: Geomorphic Expression, Controlling Conditions, Accommodation of Fold Deformation. Tectonics, 2018, 37, 2278-2306.	2.8	23
108	Sedimentary sequences, seismofacies and evolution of depositional systems of the Oligo/Miocene Lower Freshwater Molasse Group, Switzerland. Basin Research, 1997, 9, 1-26.	2.7	22

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109	Cracking the Himalaya. <i>Nature</i> , 2005, 434, 963-964.	27.8	22
110	Thermal and kinematic modeling of bedrock and detrital cooling ages in the central Himalaya. <i>Journal of Geophysical Research</i> , 2006, 111, .	3.3	22
111	Variations of Lateral Bedrock Erosion Rates Control Planation of Uplifting Folds in the Foreland of the Tian Shan, NW China. <i>Journal of Geophysical Research F: Earth Surface</i> , 2017, 122, 2431-2467.	2.8	22
112	Dating growth strata and basin fill by combining <sup>26</sup> Al/ <sup>10</sup> Be burial dating and magnetostratigraphy: Constraining active deformation in the Pamir-Tian Shan convergence zone, NW China. <i>Lithosphere</i> , 2018, 10, 806-828.	1.4	22
113	Pliocene-Pleistocene initiation, style, and sequencing of deformation in the central Tien Shan. <i>Tectonics</i> , 2014, 33, 464-484.	2.8	21
114	Numerical study of degradation of fluvial hanging valleys due to climate change. <i>Journal of Geophysical Research</i> , 2009, 114, .	3.3	18
115	Active Flexural-Slip Faulting: Controls Exerted by Stratigraphy, Geometry, and Fold Kinematics. <i>Journal of Geophysical Research: Solid Earth</i> , 2017, 122, 8538-8565.	3.4	18
116	Along-Strike and Downdip Segmentation of the Pamir Frontal Thrust and Its Association With the 1985 Mw 6.9 Wuyia Earthquake. <i>Journal of Geophysical Research: Solid Earth</i> , 2019, 124, 9890-9919.	3.4	18
117	Active flexural-slip faulting: A study from the Pamir-Tian Shan convergent zone, NW China. <i>Journal of Geophysical Research: Solid Earth</i> , 2015, 120, 4359-4378.	3.4	15
118	Evaluating hillslope diffusion and terrace riser degradation in New Zealand and Idaho. <i>Journal of Geophysical Research</i> , 2010, 115, .	3.3	14
119	Rates and timing of vertical-axis block rotations across the central Sierra Nevada-Walker Lane transition in the Bodie Hills, California/Nevada. <i>Tectonics</i> , 2011, 30, .	2.8	14
120	Bedrock Control on Glacial Limits: Examples from the Ladakh and Zaskar Ranges, North-Western Himalaya, India. <i>Journal of Glaciology</i> , 1985, 31, 143-149.	2.2	11
121	Single-Crystal Dating and the Detrital Record of Orogenesis. , 0, , 253-281.		8
122	Kinematic implications of consequent channels on growing folds. <i>Journal of Geophysical Research</i> , 2011, 116, .	3.3	8
123	Tectonic Geomorphology, Second Edition. <i>Environmental and Engineering Geoscience</i> , 2013, 19, 198-200.	0.9	8
124	Relationship of channel steepness to channel incision rate from a tilted and progressively exposed unconformity surface. <i>Journal of Geophysical Research F: Earth Surface</i> , 2014, 119, 366-384.	2.8	7
125	Comment and Reply on "Thrusting and gravel progradation in foreland basins: A test of post-thrusting gravel dispersal". <i>Geology</i> , 1989, 17, 959.	4.4	5
126	Comment and Reply on "Development of the Himalayan frontal thrust zone: Salt Range, Pakistan". <i>Geology</i> , 1989, 17, 378.	4.4	2