

# Daniel D Melnick

## List of Publications by Year in descending order

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84  
papers

3,543  
citations

172457

29  
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155660

55  
g-index

98  
all docs

98  
docs citations

98  
times ranked

3214  
citing authors

#	ARTICLE	IF	CITATIONS
1	Toward understanding tectonic control on the Mw 8.8 2010 Maule Chile earthquake. <i>Earth and Planetary Science Letters</i> , 2012, 321-322, 152-165.	4.4	198
2	Impact of megathrust geometry on inversion of coseismic slip from geodetic data: Application to the 1960 Chile earthquake. <i>Geophysical Research Letters</i> , 2009, 36, .	4.0	172
3	Segmentation of megathrust rupture zones from forearc deformation patterns over hundreds to millions of years, Arauco peninsula, Chile. <i>Journal of Geophysical Research</i> , 2009, 114, .	3.3	167
4	Coastal staircase sequences reflecting sea-level oscillations and tectonic uplift during the Quaternary and Neogene. <i>Earth-Science Reviews</i> , 2014, 132, 13-38.	9.1	151
5	Kinematic constraints on intra-arc shear and strain partitioning in the southern Andes between 38°S and 42°S latitude. <i>Tectonics</i> , 2006, 25, n/a-n/a.	2.8	149
6	East African mid-Holocene wet-dry transition recorded in palaeo-shorelines of Lake Turkana, northern Kenya Rift. <i>Earth and Planetary Science Letters</i> , 2012, 331-332, 322-334.	4.4	135
7	Heterogeneous plate locking in the South-Central Chile subduction zone: Building up the next great earthquake. <i>Earth and Planetary Science Letters</i> , 2011, 305, 413-424.	4.4	129
8	Land-Level Changes Produced by the Mw 8.8 2010 Chilean Earthquake. <i>Science</i> , 2010, 329, 916-916.	12.6	126
9	Inversion of forearc basins in south-central Chile caused by rapid glacial age trench fill. <i>Geology</i> , 2006, 34, 709.	4.4	113
10	Ecological Implications of Extreme Events: Footprints of the 2010 Earthquake along the Chilean Coast. <i>PLoS ONE</i> , 2012, 7, e35348.	2.5	112
11	Coastal deformation and great subduction earthquakes, Isla Santa Maria, Chile (37°S). <i>Bulletin of the Geological Society of America</i> , 2006, 118, 1463-1480.	3.3	109
12	Rise of the central Andean coast by earthquakes straddling the Moho. <i>Nature Geoscience</i> , 2016, 9, 401-407.	12.9	94
13	Nearly Instantaneous Tsunamis Following the Mw 7.5 2018 Palu Earthquake. <i>Geophysical Research Letters</i> , 2019, 46, 5117-5126.	4.0	93
14	Structural control on arc volcanism: The Cavihue-Copahue complex, Central to Patagonian Andes transition (38°S). <i>Journal of South American Earth Sciences</i> , 2006, 22, 66-88.	1.4	82
15	Late Pleistocene-Holocene rise and collapse of Lake Suguta, northern Kenya Rift. <i>Quaternary Science Reviews</i> , 2009, 28, 911-925.	3.0	81
16	Splay fault slip during the Mw 8.8 2010 Maule Chile earthquake. <i>Geology</i> , 2012, 40, 251-254.	4.4	81
17	Late Neogene and active orogenic uplift in the Central Pontides associated with the North Anatolian Fault: Implications for the northern margin of the Central Anatolian Plateau, Turkey. <i>Tectonics</i> , 2011, 30, .	2.8	66
18	Using uplifted Holocene beach berms for paleoseismic analysis on the Santa María Island, south-central Chile. <i>Geophysical Research Letters</i> , 2006, 33, .	4.0	63

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19	Chilean megathrust earthquake recurrence linked to frictional contrast at depth. <i>Nature Geoscience</i> , 2018, 11, 285-290.	12.9	61
20	The super-interseismic phase of the megathrust earthquake cycle in Chile. <i>Geophysical Research Letters</i> , 2017, 44, 784-791.	4.0	59
21	Central and Southern Andean Tectonic Evolution Inferred from Arc Magmatism. , 2006, , 337-353.		50
22	Segmentation of the 2010 Maule Chile earthquake rupture from a joint analysis of uplifted marine terraces and seismic-cycle deformation patterns. <i>Quaternary Science Reviews</i> , 2015, 113, 171-192.	3.0	50
23	Estimating coseismic coastal uplift with an intertidal mussel: calibration for the 2010 Maule Chile earthquake ( $M_w=8.8$ ). <i>Quaternary Science Reviews</i> , 2012, 42, 29-42.	3.0	49
24	Differential uplift along the northern margin of the Central Anatolian Plateau: inferences from marine terraces. <i>Quaternary Science Reviews</i> , 2013, 81, 12-28.	3.0	46
25	Vertical deformation through a complete seismic cycle at Isla Santa Mar�a, Chile. <i>Nature Geoscience</i> , 2015, 8, 547-551.	12.9	44
26	Active faulting and heterogeneous deformation across a megathrust segment boundary from GPS data, south central Chile ( $36^{\circ}$ - $39^{\circ}$ S). <i>Geochemistry, Geophysics, Geosystems</i> , 2008, 9, .	2.5	43
27	Tectonic control on rock uplift, exhumation, and topography above an oceanic ridge collision: Southern Patagonian Andes ( $47^{\circ}$ S), Chile. <i>Tectonics</i> , 2016, 35, 1317-1341.	2.8	43
28	Morphotectonic and Geologic Digital Map Compilations of the South-Central Andes ( $36^{\circ}$ - $42^{\circ}$ S). , 2006, , 565-568.		41
29	Controls on submarine canyon activity during sea-level highstands: The Biob�o canyon system offshore Chile. , 2015, 11, 1226-1255.		40
30	Steady rifting in northern Kenya inferred from deformed Holocene lake shorelines of the Suguta and Turkana basins. <i>Earth and Planetary Science Letters</i> , 2012, 331-332, 335-346.	4.4	37
31	Long-Term Geological Evolution and Mass-Flow Balance of the South-Central Andes. , 2006, , 401-428.		34
32	Cascading processes in a changing environment: Disturbances on fluvial ecosystems in Chile and implications for hazard and risk management. <i>Science of the Total Environment</i> , 2019, 655, 1089-1103.	8.0	34
33	Unraveling Sea-Level Variations and Tectonic Uplift in Wave-Built Marine Terraces, Santa Mar�a Island, Chile. <i>Quaternary Research</i> , 2015, 83, 216-228.	1.7	33
34	TerraceM: A MATLAB� tool to analyze marine and lacustrine terraces using high-resolution topography. , 2016, 12, 176-195.		31
35	Tectonic implications of fluvial incision and pediment deformation at the northern margin of the Central Anatolian Plateau based on multiple cosmogenic nuclides. <i>Tectonics</i> , 2013, 32, 1107-1120.	2.8	30
36	Reawakening of large earthquakes in south central Chile: The 2016 $M_w > 7.6$ Chilo� event. <i>Geophysical Research Letters</i> , 2017, 44, 6633-6640.	4.0	30

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37	Incipient axial collapse of the Main Cordillera and strain partitioning gradient between the central and Patagonian Andes, Lago Laja, Chile. <i>Tectonics</i> , 2006, 25, n/a-n/a.	2.8	29
38	A morphotectonic analysis of central Patagonian Cordillera: Negative inversion of the Andean belt over a buried spreading center?. <i>Tectonics</i> , 2010, 29, n/a-n/a.	2.8	29
39	Quantifying offshore forearc deformation and splay fault slip using drowned Pleistocene shorelines, Arauco Bay, Chile. <i>Journal of Geophysical Research: Solid Earth</i> , 2017, 122, 4529-4558.	3.4	29
40	Splay fault triggering by great subduction earthquakes inferred from finite element models. <i>Geophysical Research Letters</i> , 2014, 41, 385-391.	4.0	28
41	A comprehensive database of active and potentially-active continental faults in Chile at 1:25,000 scale. <i>Scientific Data</i> , 2021, 8, 20.	5.3	28
42	The Segmented Overriding Plate and Coupling at the South-Central Chilean Margin (36°-42°S)., 2006, , 355-374.		27
43	Short-lived increase in erosion during the African Humid Period: Evidence from the northern Kenya Rift. <i>Earth and Planetary Science Letters</i> , 2017, 459, 58-69.	4.4	27
44	Turbidite paleoseismology along the active continental margin of Chile – Feasible or not?. <i>Quaternary Science Reviews</i> , 2015, 120, 71-92.	3.0	26
45	Postseismic uplift of the Andes following the 2010 Maule earthquake: Implications for mantle rheology. <i>Geophysical Research Letters</i> , 2017, 44, 1768-1776.	4.0	25
46	Lithospheric flexure and rheology determined by climate cycle markers in the Corinth Rift. <i>Scientific Reports</i> , 2019, 9, 4260.	3.3	24
47	TerraceM-2: A Matlab® Interface for Mapping and Modeling Marine and Lacustrine Terraces. <i>Frontiers in Earth Science</i> , 2019, 7, .	1.8	22
48	How do sea-level curves influence modeled marine terrace sequences?. <i>Quaternary Science Reviews</i> , 2020, 229, 106132.	3.0	22
49	Levantamiento cosismico e impacto del tsunami a lo largo de la costa de Chile central asociado al terremoto del Maule Mw8,8 de 2010.. <i>Andean Geology</i> , 2011, 38, .	0.5	22
50	Neogene tectonic evolution of the Neuquén Andes western flank (37°-39°S)., 2006, , .		19
51	Holocene relative sea-level change along the tectonically active Chilean coast. <i>Quaternary Science Reviews</i> , 2020, 236, 106281.	3.0	19
52	Forearc uplift rates deduced from sediment cores of two coastal lakes in south-central Chile. <i>Tectonophysics</i> , 2010, 495, 129-143.	2.2	18
53	Fast Holocene slip and localized strain along the Liquiñe-Ofqui strike-slip fault system, Chile. <i>Scientific Reports</i> , 2021, 11, 5970.	3.3	18
54	Slip along the Sultanhanlı Fault in Central Anatolia from deformed Pleistocene shorelines of palaeo-lake Konya and implications for seismic hazards in low-strain regions. <i>Geophysical Journal International</i> , 2017, 209, 1431-1454.	2.4	17

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55	The subaqueous landslide cycle in south-central Chilean lakes: The role of tephra, slope gradient and repeated seismic shaking. <i>Sedimentary Geology</i> , 2019, 381, 84-105.	2.1	17
56	The occurrence and hazards of great subduction zone earthquakes. <i>Nature Reviews Earth &amp; Environment</i> , 2022, 3, 125-140.	29.7	17
57	Responses of Dune Plant Communities to Continental Uplift from a Major Earthquake: Sudden Releases from Coastal Squeeze. <i>PLoS ONE</i> , 2015, 10, e0124334.	2.5	16
58	Variable Quaternary Uplift Along the Southern Margin of the Central Anatolian Plateau Inferred From Modeling Marine Terrace Sequences. <i>Tectonics</i> , 2020, 39, e2019TC005921.	2.8	15
59	Calibrating coseismic coastal land-level changes during the 2014 Iquique (Mw=8.2) earthquake (northern Chile) with leveling, GPS and intertidal biota. <i>PLoS ONE</i> , 2017, 12, e0174348.	2.5	15
60	Continental rifting at magmatic centres: structural implications from the Late Quaternary Menengai Caldera, central Kenya Rift. <i>Journal of the Geological Society</i> , 2020, 177, 153-169.	2.1	14
61	Back to full interseismic plate locking decades after the giant 1960 Chile earthquake. <i>Nature Communications</i> , 2018, 9, 3527.	12.8	13
62	Recovery of black-necked swans, macrophytes and water quality in a Ramsar wetland of southern Chile: Assessing resilience following sudden anthropogenic disturbances. <i>Science of the Total Environment</i> , 2018, 628-629, 291-301.	8.0	12
63	Chapter 10 The rock coast of South and Central America. <i>Geological Society Memoir</i> , 2014, 40, 155-191.	1.7	10
64	Hidden Holocene Slip Along the Coastal El Yolki Fault in Central Chile and Its Possible Link With Megathrust Earthquakes. <i>Journal of Geophysical Research: Solid Earth</i> , 2019, 124, 7280-7302.	3.4	10
65	Marine terraces of the last interglacial period along the Pacific coast of South America (1°S-40°S). <i>Earth System Science Data</i> , 2021, 13, 2487-2513.	9.9	10
66	Plio-Quaternary extensional tectonics of the Central Anatolian Plateau: a case study from the Tuz Gölü Basin, Turkey. <i>Turkish Journal of Earth Sciences</i> , 0, , .	1.0	10
67	Frictional Segmentation of the Chilean Megathrust From a Multivariate Analysis of Geophysical, Geological, and Geodetic Data. <i>Journal of Geophysical Research: Solid Earth</i> , 2021, 126, e2020JB020647.	3.4	9
68	First Field Evidence of Coseismic Land-Level Change Associated with the 25 December 2016 Mw 7.6 Chiloé, Chile, Earthquake. <i>Bulletin of the Seismological Society of America</i> , 2019, 109, 87-98.	2.3	8
69	Data Management of the SFB 267 for the Andes " from Ink and Paper to Digital Databases. , 2006, , 539-556.		8
70	Resilience of an aquatic macrophyte to an anthropogenically induced environmental stressor in a Ramsar wetland of southern Chile. <i>Ambio</i> , 2019, 48, 304-312.	5.5	7
71	Geological evidence of an unreported historical Chilean tsunami reveals more frequent inundation. <i>Communications Earth &amp; Environment</i> , 2021, 2, .	6.8	7
72	Corinth terraces re-visited: Improved paleoshoreline determination using Pleiades-DEMs. <i>Geotectonic Research</i> , 2015, 97, 12-14.	0.1	6

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73	Darwinâ€™ seismic gap closed by the 2010 Maule earthquake. <i>Andean Geology</i> , 2012, 39, .	0.5	5
74	Splay fault slip during the Mw 8.8 2010 Maule Chile earthquake: REPLY. <i>Geology</i> , 2013, 41, e310-e310.	4.4	4
75	Transient Deformation and Stress Patterns Induced by the 2010 Maule Earthquake in the Illapel Segment. <i>Frontiers in Earth Science</i> , 2021, 9, .	1.8	4
76	The cryptic seismic potential of the Pichilemu blind fault in Chile revealed by off-fault geomorphology. <i>Nature Communications</i> , 2022, 13, .	12.8	4
77	Origen y distribuci3n de dep3sites de tsunami en la marisma de ChaihuÃn (40Â° S/73,5Â° O), Chile. <i>Andean Geology</i> , 2021, 48, 125.	0.5	3
78	Sensitivity of tidal marshes as recorders of major megathrust earthquakes: constraints from the 25 December 2016 M w 7.6 ChiloÃ© earthquake, Chile. <i>Journal of Quaternary Science</i> , 2021, 36, 991-1002.	2.1	3
79	Midâ€Pleistocene to Recent Crustal Extension in the Inner Graben of the Northern Kenya Rift. <i>Geochemistry, Geophysics, Geosystems</i> , 2022, 23, .	2.5	3
80	Geomorphic expression of a tectonically active rift-transfer zone in southern Ethiopia. <i>Geomorphology</i> , 2022, 403, 108162.	2.6	3
81	The giant 1960 tsunami in the context of a 6000â€year record of paleotsunamis and coastal evolution in southâ€central Chile. <i>Earth Surface Processes and Landforms</i> , 2022, 47, 2062-2078.	2.5	1
82	Corrigendum to â€Short-lived increase in erosion during the African Humid Period: Evidence from the northern Kenya Riftâ€[ <i>Earth Planet. Sci. Lett.</i> 459 (2017) 58â€69]. <i>Earth and Planetary Science Letters</i> , 2017, 474, 528.	4.4	0
83	Unrushed megathrusts. <i>Nature Geoscience</i> , 2021, 14, 260-261.	12.9	0
84	How Good is a Paleoseismic Record of Megathrust Earthquakes for Probabilistic Forecasting?. <i>Seismological Research Letters</i> , 2022, 93, 739-748.	1.9	0