Laura M Wallace

List of Publications by Year in descending order

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#	Article	IF	CITATIONS
1	Continuous Tremor Activity With Stable Polarization Direction Following the 2014 Large Slow Slip Event in the Hikurangi Subduction Margin Offshore New Zealand. Journal of Geophysical Research: Solid Earth, 2022, 127, e2021JB022161.	3.4	3
2	Crustal Structure of the Hikurangi Margin From SHIRE Seismic Data and the Relationship Between Forearc Structure and Shallow Megathrust Slip Behavior. Geophysical Research Letters, 2022, 49, .	4.0	8
3	Segmentation of Shallow Slow Slip Events at the Hikurangi Subduction Zone Explained by Alongâ€Strike Changes in Fault Geometry and Plate Convergence Rates. Journal of Geophysical Research: Solid Earth, 2022, 127, .	3.4	4
4	The occurrence and hazards of great subduction zone earthquakes. Nature Reviews Earth & Environment, 2022, 3, 125-140.	29.7	17
5	Frictional and Lithological Controls on Shallow Slow Slip at the Northern Hikurangi Margin. Geochemistry, Geophysics, Geosystems, 2022, 23, .	2.5	16
6	A Snapshot of New Zealand's Dynamic Deformation Field From Envisat InSAR and GNSS Observations Between 2003 and 2011. Geophysical Research Letters, 2022, 49, .	4.0	17
7	SMART Subsea Cables for Observing the Earth and Ocean, Mitigating Environmental Hazards, and Supporting the Blue Economy. Frontiers in Earth Science, 2022, 9, .	1.8	13
8	Temporal velocity variations in the northern Hikurangi margin and the relation to slow slip. Earth and Planetary Science Letters, 2022, 584, 117443.	4.4	4
9	Spatial Variation of Shallow Stress Orientation Along the Hikurangi Subduction Margin: Insights From Inâ€ S itu Borehole Image Logging. Journal of Geophysical Research: Solid Earth, 2022, 127, .	3.4	5
10	Seafloor overthrusting causes ductile fault deformation and fault sealing along the Northern Hikurangi Margin. Earth and Planetary Science Letters, 2022, 593, 117651.	4.4	6
11	Variable In Situ Stress Orientations Across the Northern Hikurangi Subduction Margin. Geophysical Research Letters, 2021, 48, e2020GL091707.	4.0	8
12	Water Depth Dependence of Longâ€Range Correlation in Nontidal Variations in Seafloor Pressure. Geophysical Research Letters, 2021, 48, e2020GL092173.	4.0	9
13	Physical conditions and frictional properties in the source region of a slow-slip event. Nature Geoscience, 2021, 14, 334-340.	12.9	14
14	Editorial: Frontiers in Seafloor Geodesy. Frontiers in Earth Science, 2021, 9, .	1.8	0
15	Asymmetric Brittle Deformation at the PÄpaku Fault, Hikurangi Subduction Margin, NZ, IODP Expedition 375. Geochemistry, Geophysics, Geosystems, 2021, 22, e2021GC009662.	2.5	4
16	Slow Slip Events in New Zealand. Annual Review of Earth and Planetary Sciences, 2020, 48, 175-203.	11.0	69
17	New Zealandâ€Wide Geodetic Strain Rates Using a Physicsâ€Based Approach. Geophysical Research Letters, 2020, 47, e2019GL084606.	4.0	30
18	Temporal and spatial variations in seismic anisotropy and V/V ratios in a region of slow slip. Earth and Planetary Science Letters, 2020, 532, 115970.	4.4	20

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19	Mechanical Implications of Creep and Partial Coupling on the World's Fastest Slipping Lowâ€Angle Normal Fault in Southeastern Papua New Guinea. Journal of Geophysical Research: Solid Earth, 2020, 125, e2020JB020117.	3.4	15
20	Emerged Coral Reefs Record Holocene Lowâ€Angle Normal Fault Earthquakes. Geophysical Research Letters, 2020, 47, e2020GL089301.	4.0	6
21	Physical Properties and Gas Hydrate at a Near‧eafloor Thrust Fault, Hikurangi Margin, New Zealand. Geophysical Research Letters, 2020, 47, e2020GL088474.	4.0	20
22	Sea Surface Gravity Waves Excited by Dynamic Ground Motions from Large Regional Earthquakes. Seismological Research Letters, 2020, 91, 2268-2277.	1.9	4
23	New Opportunities to Study Earthquake Precursors. Seismological Research Letters, 2020, 91, 2444-2447.	1.9	27
24	Slow slip source characterized by lithological and geometric heterogeneity. Science Advances, 2020, 6, eaay3314.	10.3	95
25	Observations of Laboratory and Natural Slow Slip Events: Hikurangi Subduction Zone, New Zealand. Geochemistry, Geophysics, Geosystems, 2020, 21, e2019GC008717.	2.5	11
26	Timeâ€Dependent Behavior of a Nearâ€Trench Slowâ€Slip Event at the Hikurangi Subduction Zone. Geochemistry, Geophysics, Geosystems, 2019, 20, 4292-4304.	2.5	9
27	Ultraâ€long Duration of Seismic Ground Motion Arising From a Thick, Lowâ€Velocity Sedimentary Wedge. Journal of Geophysical Research: Solid Earth, 2019, 124, 10347-10359.	3.4	31
28	Evolution of a rapidly slipping, active low-angle normal fault, Suckling-Dayman metamorphic core complex, SE Papua New Guinea. Bulletin of the Geological Society of America, 2019, 131, 1333-1363.	3.3	26
29	Episodic stress and fluid pressure cycling in subducting oceanic crust during slow slip. Nature Geoscience, 2019, 12, 475-481.	12.9	101
30	Tectonic Inheritance Following Failed Continental Subduction: A Model for Core Complex Formation in Cold, Strong Lithosphere. Tectonics, 2019, 38, 1742-1763.	2.8	9
31	Slow Slip Event Detection in Cascadia Using Vertical Derivatives of Horizontal Stress Rates. Journal of Geophysical Research: Solid Earth, 2019, 124, 5153-5173.	3.4	7
32	Slow Motion Earthquakes: Taking the Pulse of Slow Slip with Scientific Ocean Drilling. Oceanography, 2019, 32, 106-118.	1.0	3
33	Seismicity at the Northern Hikurangi Margin, New Zealand, and Investigation of the Potential Spatial and Temporal Relationships With a Shallow Slow Slip Event. Journal of Geophysical Research: Solid Earth, 2019, 124, 4751-4766.	3.4	25
34	The role of the upper plate in controlling fluid-mobile element (Cl, Li, B) cycling through subduction zones: Hikurangi forearc, New Zealand. , 2019, 15, 642-658.		12
35	Threeâ€Dimensional Modeling of Spontaneous and Triggered Slowâ€Slip Events at the Hikurangi Subduction Zone, New Zealand. Journal of Geophysical Research: Solid Earth, 2019, 124, 13250-13268.	3.4	12
36	Seafloor Crustal Deformation on Ocean Bottom Pressure Records With Nontidal Variability Corrections: Application to Hikurangi Margin, New Zealand. Geophysical Research Letters, 2019, 46, 303-310.	4.0	20

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37	Changes in Physical Properties of the Nankai Trough Megasplay Fault Induced by Earthquakes, Detected by Continuous Pressure Monitoring. Journal of Geophysical Research: Solid Earth, 2018, 123, 1072-1088.	3.4	10
38	Triggered Slow Slip and Afterslip on the Southern Hikurangi Subduction Zone Following the KaikÅura Earthquake. Geophysical Research Letters, 2018, 45, 4710-4718.	4.0	73
39	The New Zealand Probabilistic Tsunami Hazard Model: development and implementation of a methodology for estimating tsunami hazard nationwide. Geological Society Special Publication, 2018, 456, 199-217.	1.3	9
40	How fast can low-angle normal faults slip? Insights from cosmogenic exposure dating of the active Mai'iu fault, Papua New Guinea. Geology, 2018, 46, 227-230.	4.4	22
41	Using Tsunami Waves Reflected at the Coast to Improve Offshore Earthquake Source Parameters: Application to the 2016 Mw 7.1 Te Araroa Earthquake, New Zealand. Journal of Geophysical Research: Solid Earth, 2018, 123, 8767-8779.	3.4	16
42	Geophysical Constraints on the Relationship Between Seamount Subduction, Slow Slip, and Tremor at the North Hikurangi Subduction Zone, New Zealand. Geophysical Research Letters, 2018, 45, 12,804.	4.0	72
43	Earthquakes and Tremor Linked to Seamount Subduction During Shallow Slow Slip at the Hikurangi Margin, New Zealand. Journal of Geophysical Research: Solid Earth, 2018, 123, 6769-6783.	3.4	76
44	The Impact of Realistic Elastic Properties on Inversions of Shallow Subduction Interface Slow Slip Events Using Seafloor Geodetic Data. Geophysical Research Letters, 2018, 45, 7462-7470.	4.0	35
45	Simple Physical Model for the Probability of a Subduction―Zone Earthquake Following Slow Slip Events and Earthquakes: Application to the Hikurangi Megathrust, New Zealand. Geophysical Research Letters, 2018, 45, 3932-3941.	4.0	20
46	Recurring and triggered slow-slip events near the trench at the Nankai Trough subduction megathrust. Science, 2017, 356, 1157-1160.	12.6	222
47	Complex multifault rupture during the 2016 <i>M</i> _w 7.8 KaikÅura earthquake, New Zealand. Science, 2017, 356, .	12.6	457
48	The 2016 KaikÅura, New Zealand, Earthquake: Preliminary Seismological Report. Seismological Research Letters, 2017, 88, 727-739.	1.9	170
49	Slow slip events and the 2016 Te Araroa <i>M</i> _{<i>w</i>} 7.1 earthquake interaction: Northern Hikurangi subduction, New Zealand. Geophysical Research Letters, 2017, 44, 8336-8344.	4.0	22
50	Large-scale dynamic triggering of shallow slow slip enhanced by overlying sedimentary wedge. Nature Geoscience, 2017, 10, 765-770.	12.9	119
51	Rapid Evolution of Subductionâ€Related Continental Intraarc Rifts: The Taupo Rift, New Zealand. Tectonics, 2017, 36, 2250-2272.	2.8	52
52	Quaternary Tectonics of New Zealand. , 2017, , 1-34.		10
53	Splay fault branching from the <scp>H</scp> ikurangi subduction shear zone: Implications for slow slip and fluid flow. Geochemistry, Geophysics, Geosystems, 2016, 17, 5009-5023.	2.5	23
54	Calculating regional stresses for northern Canterbury: the effect of the 2010 Darfield earthquake. New Zealand Journal of Geology, and Geophysics, 2016, 59, 202-212.	1.8	5

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55	Slow slip near the trench at the Hikurangi subduction zone, New Zealand. Science, 2016, 352, 701-704.	12.6	242
56	Nearâ€field observations of an offshore <i>M_w</i> 6.0 earthquake from an integrated seafloor and subseafloor monitoring network at the Nankai Trough, southwest Japan. Journal of Geophysical Research: Solid Earth, 2016, 121, 8338-8351.	3.4	71
57	New Zealand GPS velocity field: 1995–2013. New Zealand Journal of Geology, and Geophysics, 2016, 59, 5-14.	1.8	57
58	High-resolution view of active tectonic deformation along the Hikurangi subduction margin and the Taupo Volcanic Zone, New Zealand. New Zealand Journal of Geology, and Geophysics, 2016, 59, 43-57.	1.8	29
59	Introduction to <i>NZJGG</i> special issue in honour of John Beavan's scientific contributions. New Zealand Journal of Geology, and Geophysics, 2016, 59, 1-4.	1.8	2
60	Understanding the potential for tsunami generated by earthquakes on the southern Hikurangi subduction interface. New Zealand Journal of Geology, and Geophysics, 2016, 59, 70-85.	1.8	8
61	Increased rates of largeâ€magnitude explosive eruptions in Japan in the late Neogene and Quaternary. Geochemistry, Geophysics, Geosystems, 2016, 17, 2467-2479.	2.5	18
62	Salt-marsh foraminiferal record of 10 large Holocene (last 7500 yr) earthquakes on a subducting plate margin, Hawkes Bay, New Zealand. Bulletin of the Geological Society of America, 2016, 128, 896-915.	3.3	23
63	Investigations of Shallow Slow Slip Offshore of New Zealand. Eos, 2016, 97, .	0.1	1
64	Paleomagnetic evidence for verticalâ€axis rotations of crustal blocks in the <scp>W</scp> oodlark <scp>R</scp> ift, <scp>SE</scp> <scp>P</scp> apua <scp>N</scp> ew <scp>G</scp> uinea: Miocene to presentâ€day kinematics in one of the world's most rapidly extending plate boundary zones. Geochemistry, Geophysics, Geosystems, 2015, 16, 2058-2081.	2.5	4
65	Effects of material property variations on slip estimates for subduction interface slowâ€slip events. Geophysical Research Letters, 2015, 42, 1113-1121.	4.0	38
66	New Insights into the present-day kinematics of the central and western Papua New Guinea from GPS. Geophysical Journal International, 2015, 202, 993-1004.	2.4	33
67	Evidence for Past Subduction Earthquakes at a Plate Boundary with Widespread Upper Plate Faulting: Southern Hikurangi Margin, New Zealand. Bulletin of the Seismological Society of America, 2015, 105, 1661-1690.	2.3	44
68	The Hikurangi Margin Continuous GNSS and Seismograph Network of New Zealand. Seismological Research Letters, 2015, 86, 101-108.	1.9	16
69	Development of the Global Earthquake Model's neotectonic fault database. Natural Hazards, 2015, 79, 111-135.	3.4	20
70	The frictional, hydrologic, metamorphic and thermal habitat of shallow slow earthquakes. Nature Geoscience, 2015, 8, 594-600.	12.9	216
71	Silent triggering: Aseismic crustal faulting induced by a subduction slow slip event. Earth and Planetary Science Letters, 2015, 421, 13-19.	4.4	11
72	Foraminiferal record of Holocene paleo-earthquakes on the subsiding south-western Poverty Bay coastline, New Zealand. New Zealand Journal of Geology, and Geophysics, 2015, 58, 104-122.	1.8	11

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73	Fluid budgets along the northern Hikurangi subduction margin, New Zealand: the effect of a subducting seamount on fluid pressure. Geophysical Journal International, 2015, 202, 277-297.	2.4	62
74	Variable Holocene deformation above a shallow subduction zone extremely close to the trench. Nature Communications, 2015, 6, 7607.	12.8	17
75	Contemporary ground deformation in the Taupo Rift and Okataina Volcanic Centre from 1998 to 2011, measured using GPS. Geophysical Journal International, 2015, 202, 2082-2105.	2.4	20
76	Enhanced Surface Imaging of Crustal Deformation. SpringerBriefs in Earth Sciences, 2015, , .	0.5	15
77	Application to Central South Island, New Zealand. SpringerBriefs in Earth Sciences, 2015, , 63-75.	0.5	0
78	Earthquake and Tsunami Potential of the Hikurangi Subduction Thrust, New Zealand: Insights from Paleoseismology, GPS, and Tsunami Modeling. Oceanography, 2014, 27, 104-117.	1.0	20
79	Quake clamps down on slow slip. Geophysical Research Letters, 2014, 41, 8840-8846.	4.0	27
80	Tsunami inundation in Napier, New Zealand, due to local earthquake sources. Natural Hazards, 2014, 70, 415-445.	3.4	37
81	Crustal deformation and stress transfer during a propagating earthquake sequence: The 2013 Cook Strait sequence, central New Zealand. Journal of Geophysical Research: Solid Earth, 2014, 119, 6080-6092.	3.4	45
82	Timeâ€dependent modeling of slow slip events and associated seismicity and tremor at the Hikurangi subduction zone, New Zealand. Journal of Geophysical Research: Solid Earth, 2014, 119, 734-753.	3.4	79
83	Continental breakup and UHP rock exhumation in action: GPS results from the <scp>W</scp> oodlark <scp>R</scp> ift, <scp>P</scp> apua <scp>N</scp> ew <scp>G</scp> uinea. Geochemistry, Geophysics, Geosystems, 2014, 15, 4267-4290.	2.5	54
84	Newly observed, deep slow slip events at the central Hikurangi margin, New Zealand: Implications for downdip variability of slow slip and tremor, and relationship to seismic structure. Geophysical Research Letters, 2013, 40, 5393-5398.	4.0	66
85	John Beavan (1950–2012). Eos, 2013, 94, 55-55.	0.1	0
86	Simultaneous longâ€ŧerm and shortâ€ŧerm slow slip events at the Hikurangi subduction margin, New Zealand: Implications for processes that control slow slip event occurrence, duration, and migration. Journal of Geophysical Research, 2012, 117, .	3.3	166
87	Upper plate tectonic stress state may influence interseismic coupling on subduction megathrusts. Geology, 2012, 40, 895-898.	4.4	31
88	National Seismic Hazard Model for New Zealand: 2010 Update. Bulletin of the Seismological Society of America, 2012, 102, 1514-1542.	2.3	359
89	The kinematics of a transition from subduction to strikeâ€slip: An example from the central New Zealand plate boundary. Journal of Geophysical Research, 2012, 117, .	3.3	159
90	Tsunami Hazard Posed to New Zealand by the Kermadec and Southern New Hebrides Subduction Margins: An Assessment Based on Plate Boundary Kinematics, Interseismic Coupling, and Historical Seismicity. Pure and Applied Geophysics, 2012, 169, 1-36.	1.9	59

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91	Deep tremor in New Zealand triggered by the 2010 Mw8.8 Chile earthquake. Geophysical Research Letters, 2011, 38, .	4.0	56
92	Preliminary Probabilistic Seismic Hazard Analysis of the CO2CRC Otway Project Site, Victoria, Australia. Bulletin of the Seismological Society of America, 2011, 101, 2726-2736.	2.3	16
93	Feedback between rifting and diapirism can exhume ultrahigh-pressure rocks. Earth and Planetary Science Letters, 2011, 311, 427-438.	4.4	72
94	Investigating subduction earthquake geology along the southern Hikurangi margin using palaeoenvironmental histories of intertidal inlets. New Zealand Journal of Geology, and Geophysics, 2011, 54, 255-271.	1.8	18
95	Volcano-tectonic interactions during rapid plate-boundary evolution in the Kyushu region, SW Japan. Bulletin of the Geological Society of America, 2011, 123, 2201-2223.	3.3	98
96	Coastal uplift mechanisms at Pakarae River mouth: Constraints from a combined Holocene fluvial and marine terrace dataset. Marine Geology, 2010, 270, 72-83.	2.1	20
97	Seismic reflection character of the Hikurangi subduction interface, New Zealand, in the region of repeated Gisborne slow slip events. Geophysical Journal International, 2010, 180, 34-48.	2.4	160
98	Subduction Systems Revealed: Studies of the Hikurangi Margin. Eos, 2010, 91, 417-418.	0.1	5
99	Diverse slow slip behavior at the Hikurangi subduction margin, New Zealand. Journal of Geophysical Research, 2010, 115, .	3.3	257
100	The Darfield (Canterbury) earthquake. Bulletin of the New Zealand Society for Earthquake Engineering, 2010, 43, 228-235.	0.5	60
101	Enigmatic, highly active left-lateral shear zone in southwest Japan explained by aseismic ridge collision. Geology, 2009, 37, 143-146.	4.4	77
102	Coral reef evolution on rapidly subsiding margins. Global and Planetary Change, 2009, 66, 129-148.	3.5	63
103	Collisional model for rapid foreâ€arc block rotations, arc curvature, and episodic backâ€arc rifting in subduction settings. Geochemistry, Geophysics, Geosystems, 2009, 10, .	2.5	96
104	Characterizing the seismogenic zone of a major plate boundary subduction thrust: Hikurangi Margin, New Zealand. Geochemistry, Geophysics, Geosystems, 2009, 10, .	2.5	142
105	Slow slip and frictional transition at lowÂtemperature at the Hikurangi subductionÂzone. Nature Geoscience, 2008, 1, 316-320.	12.9	108
106	Tectonic block rotation, arc curvature, and back-arc rifting: Insights into these processes in the Mediterranean and the western Pacific. IOP Conference Series: Earth and Environmental Science, 2008, 2, 012010.	0.3	4
107	The Mw 6.6 Gisborne earthquake of 2007. Bulletin of the New Zealand Society for Earthquake Engineering, 2008, 41, 266-277.	0.5	14
108	Tectonic evolution of the active Hikurangi subduction margin, New Zealand, since the Oligocene. Tectonics, 2007, 26, .	2.8	162

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109	Temporal stability of deformation rates: Comparison of geological and geodetic observations, Hikurangi subduction margin, New Zealand. Earth and Planetary Science Letters, 2007, 258, 397-413.	4.4	83
110	Kinematic constraints from GPS on oblique convergence of the Pacific and Australian Plates, central South Island, New Zealand. Geophysical Monograph Series, 2007, , 75-94.	0.1	37
111	Do great earthquakes occur on the Alpine Fault in central South Island, New Zealand?. Geophysical Monograph Series, 2007, , 235-251.	0.1	84
112	Numerical modeling of the growth and drowning of Hawaiian coral reefs during the last two glacial cycles (0-250 kyr). Geochemistry, Geophysics, Geosystems, 2007, 8, n/a-n/a.	2.5	28
113	Balancing the plate motion budget in the South Island, New Zealand using GPS, geological and seismological data. Geophysical Journal International, 2007, 168, 332-352.	2.4	217
114	A future magma inflation event under the rhyolitic Taupo volcano, New Zealand: Numerical models based on constraints from geochemical, geological, and geophysical data. Journal of Volcanology and Geothermal Research, 2007, 168, 1-27.	2.1	30
115	Slow Slip Events on the Hikurangi Subduction Interface, New Zealand. , 2007, , 438-444.		20
116	A large slow slip event on the central Hikurangi subduction interface beneath the Manawatu region, North Island, New Zealand. Geophysical Research Letters, 2006, 33, .	4.0	91
117	Evidence of Holocene uplift in east New Britain, Papua New Guinea. Geophysical Research Letters, 2006, 33, n/a-n/a.	4.0	7
118	Paleoecological insights into subduction zone earthquake occurrence, eastern North Island, New Zealand. Bulletin of the Geological Society of America, 2006, 118, 1051-1074.	3.3	63
119	Rapid microplate rotations and backarc rifting at the transition between collision and subduction. Geology, 2005, 33, 857.	4.4	113
120	Slow slip on the northern Hikurangi subduction interface, New Zealand. Geophysical Research Letters, 2005, 32, .	4.0	136
121	Coralgal composition of drowned carbonate platforms in the Huon Gulf, Papua New Guinea; implications for lowstand reef development and drowning. Marine Geology, 2004, 204, 59-89.	2.1	67
122	GPS and seismological constraints on active tectonics and arc-continent collision in Papua New Guinea: Implications for mechanics of microplate rotations in a plate boundary zone. Journal of Geophysical Research, 2004, 109, .	3.3	146
123	Drowned carbonate platforms in the Huon Gulf, Papua New Guinea. Geochemistry, Geophysics, Geosystems, 2004, 5, n/a-n/a.	2.5	26
124	Subduction zone coupling and tectonic block rotations in the North Island, New Zealand. Journal of Geophysical Research, 2004, 109, .	3.3	459
125	Using global positioning system data to assess tectonic hazards. , 0, , 156-175.		5

126 Multi-disciplinary probabilistic tectonic hazard analysis. , 0, , 257-275.

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127	Exploring new drilling prospects in the southwest Pacific. Scientific Drilling, 0, 17, 45-50.	0.6	1
128	Developing community-based scientific priorities and new drilling proposals in the southern Indian and southwestern Pacific oceans. Scientific Drilling, 0, 24, 61-70.	0.6	2