Matt Ikari

List of Publications by Year in descending order

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60 papers	2,561 citations	257450 24 h-index	197818 49 g-index
62 all docs	62 docs citations	62 times ranked	1645 citing authors

#	Article	IF	Citations
1	Frictional and hydrologic properties of clayâ€rich fault gouge. Journal of Geophysical Research, 2009, 114, .	3.3	342
2	On the relation between fault strength and frictional stability. Geology, 2011, 39, 83-86.	4.4	278
3	Effect of hydration state on the frictional properties of montmorillonite-based fault gouge. Journal of Geophysical Research, 2007, 112, .	3.3	154
4	Slip weakening as a mechanism for slow earthquakes. Nature Geoscience, 2013, 6, 468-472.	12.9	121
5	Stress State in the Largest Displacement Area of the 2011 Tohoku-Oki Earthquake. Science, 2013, 339, 687-690.	12.6	112
6	Slow slip source characterized by lithological and geometric heterogeneity. Science Advances, 2020, 6, eaay3314.	10.3	95
7	Laboratory observations of timeâ€dependent frictional strengthening and stress relaxation in natural and synthetic fault gouges. Journal of Geophysical Research: Solid Earth, 2016, 121, 1183-1201.	3.4	82
8	Clay fabric intensity in natural and artificial fault gouges: Implications for brittle fault zone processes and sedimentary basin clay fabric evolution. Journal of Geophysical Research, 2009, 114, .	3.3	80
9	Comparison of frictional strength and velocity dependence between fault zones in the Nankai accretionary complex. Geochemistry, Geophysics, Geosystems, 2011, 12, .	2.5	79
10	A microphysical interpretation of rateâ€•and stateâ€dependent friction for fault gouge. Geochemistry, Geophysics, Geosystems, 2016, 17, 1660-1677.	2.5	69
11	Strength characteristics of Japan Trench borehole samples in the high-slip region of the 2011 Tohoku-Oki earthquake. Earth and Planetary Science Letters, 2015, 412, 35-41.	4.4	68
12	Cohesive strength of clay-rich sediment. Geophysical Research Letters, 2011, 38, n/a-n/a.	4.0	66
13	The role of fault zone fabric and lithification state on frictional strength, constitutive behavior, and deformation microstructure. Journal of Geophysical Research, 2011, 116, .	3.3	66
14	Pelagic smectite as an important factor in tsunamigenic slip along the Japan Trench. Geology, 2015, 43, 155-158.	4.4	65
15	Spectrum of slip behaviour in Tohoku fault zone samples at plate tectonic slip rates. Nature Geoscience, 2015, 8, 870-874.	12.9	64
16	Frictional and hydrologic properties of a major splay fault system, Nankai subduction zone. Geophysical Research Letters, 2009, 36, .	4.0	54
17	Experimental evidence linking slip instability with seafloor lithology and topography at the Costa Rica convergent margin. Geology, 2013, 41, 891-894.	4.4	49
18	The State of Stress on the Fault Before, During, and After a Major Earthquake. Annual Review of Earth and Planetary Sciences, 2020, 48, 49-74.	11.0	49

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19	Seismic potential of weak, near-surface faults revealed at plate tectonic slip rates. Science Advances, 2017, 3, e1701269.	10.3	47
20	Frictional Behavior of Input Sediments to the Hikurangi Trench, New Zealand. Geochemistry, Geophysics, Geosystems, 2018, 19, 2973-2990.	2.5	41
21	Shear strength of sediments approaching subduction in the Nankai Trough, Japan as constraints on forearc mechanics. Geochemistry, Geophysics, Geosystems, 2013, 14, 2716-2730.	2.5	40
22	Submarine landslide potential near the megasplay fault at the Nankai subduction zone. Earth and Planetary Science Letters, 2011, 312, 453-462.	4.4	28
23	Experimental investigation of incipient shear failure in foliated rock. Journal of Structural Geology, 2015, 77, 82-91.	2.3	28
24	Permeability contrasts between sheared and normally consolidated sediments in the Nankai accretionary prism. Marine Geology, 2012, 295-298, 1-13.	2.1	24
25	Frictional strength, rate-dependence, and healing in DFDP-1 borehole samples from the Alpine Fault, New Zealand. Tectonophysics, 2014, 630, 1-8.	2.2	24
26	Laboratory slow slip events in natural geological materials. Geophysical Journal International, 2019, 218, 354-387.	2.4	24
27	Velocityâ€•and slipâ€dependent weakening in simulated fault gouge: Implications for multimode fault slip. Geophysical Research Letters, 2015, 42, 9247-9254.	4.0	23
28	Principal slip zones: Precursors but not recorders of earthquake slip. Geology, 2015, 43, 955-958.	4.4	23
29	Lithologic control of frictional strength variations in subduction zone sediment inputs. , 2018, 14, 604-625.		22
30	Expedition 372B/375 summary. Proceedings of the International Ocean Discovery Program, 0, , .	0.0	20
31	Application of Constitutive Friction Laws to Glacier Seismicity. Geophysical Research Letters, 2020, 47, e2020GL088964.	4.0	19
32	Lowâ€Temperature Frictional Characteristics of Chloriteâ€Epidoteâ€Amphibole Assemblages: Implications for Strength and Seismic Style of Retrograde Fault Zones. Journal of Geophysical Research: Solid Earth, 2020, 125, e2020JB019487.	3.4	19
33	The role of cohesion and overconsolidation in submarine slope failure. Marine Geology, 2015, 369, 153-161.	2.1	18
34	Expedition 372B/375 methods. Proceedings of the International Ocean Discovery Program, 0, , .	0.0	18
35	Site U1520. Proceedings of the International Ocean Discovery Program, 0, , .	0.0	18
36	Origin of a zone of anomalously high porosity in the subduction inputs to Nankai Trough. Marine Geology, 2015, 361, 147-162.	2.1	17

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37	Lithification facilitates frictional instability in argillaceous subduction zone sediments. Tectonophysics, 2015, 665, 177-185.	2.2	16
38	Site U1518. Proceedings of the International Ocean Discovery Program, 0, , .	0.0	16
39	Frictional and Lithological Controls on Shallow Slow Slip at the Northern Hikurangi Margin. Geochemistry, Geophysics, Geosystems, 2022, 23, .	2.5	16
40	Friction experiments under in-situ stress reveal unexpected velocity-weakening in Nankai accretionary prism samples. Earth and Planetary Science Letters, 2020, 538, 116180.	4.4	15
41	Shear behavior of DFDP-1 borehole samples from the Alpine Fault, New Zealand, under a wide range of experimental conditions. International Journal of Earth Sciences, 2015, 104, 1523-1535.	1.8	14
42	Elevated time-dependent strengthening rates observed in San Andreas Fault drilling samples. Earth and Planetary Science Letters, 2016, 450, 164-172.	4.4	14
43	Coseismic slip propagation on the Tohoku plate boundary fault facilitated by slipâ€dependent weakening during slow fault slip. Geophysical Research Letters, 2017, 44, 8749-8756.	4.0	14
44	Implications of basement rock alteration in the Nankai Trough, Japan for subduction megathrust slip behavior. Tectonophysics, 2020, 774, 228275.	2.2	11
45	Observations of Laboratory and Natural Slow Slip Events: Hikurangi Subduction Zone, New Zealand. Geochemistry, Geophysics, Geosystems, 2020, 21, e2019GC008717.	2.5	11
46	Site U1519. Proceedings of the International Ocean Discovery Program, 0, , .	0.0	11
47	Velocity-weakening friction induced by laboratory-controlled lithification. Earth and Planetary Science Letters, 2021, 554, 116682.	4.4	9
48	Spatial Patterns in Frictional Behavior of Sediments Along the Kumano Transect in the Nankai Trough. Journal of Geophysical Research: Solid Earth, 2021, 126, .	3.4	9
49	Quasi-Dynamic 3D Modeling of the Generation and Afterslip of a Tohoku-oki Earthquake Considering Thermal Pressurization and Frictional Properties of the Shallow Plate Boundary. Pure and Applied Geophysics, 2019, 176, 3951-3973.	1.9	8
50	Mixed Brittle and Viscous Strain Localization in Pelagic Sediments Seaward of the Hikurangi Margin, New Zealand. Tectonics, 2020, 39, e2019TC005965.	2.8	8
51	Site U1526. Proceedings of the International Ocean Discovery Program, 0, , .	0.0	7
52	Evidence of Seismic Slip on a Large Splay Fault in the Hikurangi Subduction Zone. Geochemistry, Geophysics, Geosystems, 2021, 22, e2021GC009638.	2.5	6
53	Do Embedded Volcanoclastic Layers Serve as Potential Glide Planes?: An Integrated Analysis from the Gela Basin Offshore Southern Sicily. Advances in Natural and Technological Hazards Research, 2016, , 273-280.	1.1	6
54	Plateâ€Rate Frictional Behavior of Sediment Inputs to the Hikurangi Subduction Margin: How Does Lithology Control Slow Slip Events?. Geochemistry, Geophysics, Geosystems, 2022, 23, .	2.5	6

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55	Implications for megathrust slip behavior and pore pressure at the shallow northern Cascadia subduction zone from laboratory friction experiments. Earth and Planetary Science Letters, 2022, 578, 117297.	4.4	4
56	Frictional Characteristics of Oceanic Transform Faults: Progressive Deformation and Alteration Controls Seismic Style. Geophysical Research Letters, 2021, 48, .	4.0	4
57	Frictional Strengthening Explored During Nonâ€Steady State Shearing: Implications for Fault Stability and Slip Event Recurrence Time. Journal of Geophysical Research: Solid Earth, 2020, 125, e2020JB020015.	3.4	3
58	Faulting in the laboratory. , 2020, , 167-220.		2
59	The rough ride of subducting fault surfaces. Nature Geoscience, 2020, 13, 329-330.	12.9	2
60	Data report: frictional strength of mudstone samples from the Nankai Trough frontal thrust region, IODP Sites C0006 and C0007. Proceedings of the Integrated Ocean Drilling Program Integrated Ocean Drilling Program, 0, , .	1.0	0