

Victor C Tsai

List of Publications by Year in descending order

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99
papers

4,398
citations

94433

37
h-index

114465

63
g-index

102
all docs

102
docs citations

102
times ranked

3758
citing authors

#	ARTICLE	IF	CITATIONS
1	Earthquake in a Maze: Compressional Rupture Branching During the 2012 M_w 8.6 Sumatra Earthquake. <i>Science</i> , 2012, 337, 724-726.	12.6	228
2	The Yellowstone magmatic system from the mantle plume to the upper crust. <i>Science</i> , 2015, 348, 773-776.	12.6	220
3	On establishing the accuracy of noise tomography travel-time measurements in a realistic medium. <i>Geophysical Journal International</i> , 2009, 178, 1555-1564.	2.4	165
4	Multiple CMT source analysis of the 2004 Sumatra earthquake. <i>Geophysical Research Letters</i> , 2005, 32, .	4.0	156
5	Ice front variation and tidewater behavior on Helheim and Kangerdlugssuaq Glaciers, Greenland. <i>Journal of Geophysical Research</i> , 2008, 113, .	3.3	147
6	Seasonality and Increasing Frequency of Greenland Glacial Earthquakes. <i>Science</i> , 2006, 311, 1756-1758.	12.6	144
7	A physical model for seismic noise generation from sediment transport in rivers. <i>Geophysical Research Letters</i> , 2012, 39, .	4.0	141
8	A model for turbulent hydraulic fracture and application to crack propagation at glacier beds. <i>Journal of Geophysical Research</i> , 2010, 115, .	3.3	126
9	Marine ice-sheet profiles and stability under Coulomb basal conditions. <i>Journal of Glaciology</i> , 2015, 61, 205-215.	2.2	117
10	A physical model for seismic noise generation by turbulent flow in rivers. <i>Journal of Geophysical Research F: Earth Surface</i> , 2014, 119, 2209-2238.	2.8	110
11	A model for seasonal changes in GPS positions and seismic wave speeds due to thermoelastic and hydrologic variations. <i>Journal of Geophysical Research</i> , 2011, 116, .	3.3	105
12	The 2012 Sumatra great earthquake sequence. <i>Earth and Planetary Science Letters</i> , 2012, 351-352, 247-257.	4.4	99
13	Extracting seismic core phases with array interferometry. <i>Geophysical Research Letters</i> , 2013, 40, 1049-1053.	4.0	99
14	3-D crustal structure of the western United States: application of Rayleigh-wave ellipticity extracted from noise cross-correlations. <i>Geophysical Journal International</i> , 2014, 198, 656-670.	2.4	98
15	Spurious velocity changes caused by temporal variations in ambient noise frequency content. <i>Geophysical Journal International</i> , 2013, 194, 1574-1581.	2.4	97
16	Rupture complexity of the 1994 Bolivia and 2013 Sea of Okhotsk deep earthquakes. <i>Earth and Planetary Science Letters</i> , 2014, 385, 89-96.	4.4	96
17	Understanding the amplitudes of noise correlation measurements. <i>Journal of Geophysical Research</i> , 2011, 116, .	3.3	95
18	Joint inversion of Rayleigh wave phase velocity and ellipticity using USArray: Constraining velocity and density structure in the upper crust. <i>Geophysical Research Letters</i> , 2012, 39, .	4.0	95

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19	Multiple fluvial processes detected by riverside seismic and infrasound monitoring of a controlled flood in the Grand Canyon. <i>Geophysical Research Letters</i> , 2013, 40, 4858-4863.	4.0	90
20	Estimating the effect of Earth elasticity and variable water density on tsunami speeds. <i>Geophysical Research Letters</i> , 2013, 40, 492-496.	4.0	81
21	Using centroid time-delays to characterize source durations and identify earthquakes with unique characteristics. <i>Earth and Planetary Science Letters</i> , 2013, 374, 92-100.	4.4	78
22	Theoretical constraints on true polar wander. <i>Journal of Geophysical Research</i> , 2007, 112, .	3.3	75
23	Analysis of glacial earthquakes. <i>Journal of Geophysical Research</i> , 2007, 112, .	3.3	73
24	The Seismic Signature of Debris Flows: Flow Mechanics and Early Warning at Montecito, California. <i>Geophysical Research Letters</i> , 2018, 45, 5528-5535.	4.0	69
25	Subseasonal changes observed in subglacial channel pressure, size, and sediment transport. <i>Geophysical Research Letters</i> , 2016, 43, 3786-3794.	4.0	68
26	Modeling of subglacial hydrological development following rapid supraglacial lake drainage. <i>Journal of Geophysical Research F: Earth Surface</i> , 2015, 120, 1127-1147.	2.8	60
27	Earthquake ground motion amplification for surface waves. <i>Geophysical Research Letters</i> , 2017, 44, 121-127.	4.0	59
28	Perturbational and nonperturbational inversion of Rayleigh-wave velocities. <i>Geophysics</i> , 2017, 82, F15-F28.	2.6	56
29	Possible mechanisms for glacial earthquakes. <i>Journal of Geophysical Research</i> , 2008, 113, .	3.3	54
30	The local amplification of surface waves: A new observable to constrain elastic velocities, density, and anelastic attenuation. <i>Journal of Geophysical Research</i> , 2012, 117, .	3.3	52
31	Seismic interferometry with antipodal station pairs. <i>Geophysical Research Letters</i> , 2013, 40, 4609-4613.	4.0	51
32	Site amplification, attenuation, and scattering from noise correlation amplitudes across a dense array in Long Beach, CA. <i>Geophysical Research Letters</i> , 2015, 42, 1360-1367.	4.0	51
33	A physical model of the high-frequency seismic signal generated by debris flows. <i>Earth Surface Processes and Landforms</i> , 2019, 44, 2529-2543.	2.5	51
34	The relationship between noise correlation and the Green's function in the presence of degeneracy and the absence of equipartition. <i>Geophysical Journal International</i> , 2010, 182, 1509-1514.	2.4	44
35	Particle transport mechanics and induced seismic noise in steep flume experiments with accelerometer-embedded tracers. <i>Earth Surface Processes and Landforms</i> , 2019, 44, 219-241.	2.5	44
36	Cooling magma model for deep volcanic long-period earthquakes. <i>Journal of Geophysical Research: Solid Earth</i> , 2014, 119, 8442-8456.	3.4	42

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37	An explicit relationship between time-domain noise correlation and spatial autocorrelation (SPAC) results. <i>Geophysical Journal International</i> , 2010, , no-no.	2.4	40
38	Anomalously steep dips of earthquakes in the 2011 Tohoku-Oki source region and possible explanations. <i>Earth and Planetary Science Letters</i> , 2012, 353-354, 121-133.	4.4	39
39	Expected Seismicity and the Seismic Noise Environment of Europa. <i>Journal of Geophysical Research E: Planets</i> , 2018, 123, 163-179.	3.6	38
40	Seismic array constraints on reach-scale bedload transport. <i>Geology</i> , 2017, 45, 299-302.	4.4	36
41	Ambient noise correlation on the Amery Ice Shelf, East Antarctica. <i>Geophysical Journal International</i> , 2014, 196, 1796-1802.	2.4	35
42	Nonperturbational surface-wave inversion: A Dix-type relation for surface waves. <i>Geophysics</i> , 2015, 80, EN167-EN177.	2.6	35
43	Quantifying the influence of sea ice on ocean microseism using observations from the Bering Sea, Alaska. <i>Geophysical Research Letters</i> , 2011, 38, n/a-n/a.	4.0	31
44	Vital Signs: Seismology of Icy Ocean Worlds. <i>Astrobiology</i> , 2018, 18, 37-53.	3.0	31
45	Modeling Turbulent Hydraulic Fracture Near a Free Surface. <i>Journal of Applied Mechanics, Transactions ASME</i> , 2012, 79, .	2.2	27
46	Modeling the elastic transmission of tidal stresses to great distances inland in channelized ice streams. <i>Cryosphere</i> , 2014, 8, 2007-2029.	3.9	27
47	High-resolution probing of inner core structure with seismic interferometry. <i>Geophysical Research Letters</i> , 2015, 42, 10,622.	4.0	27
48	Amplification and Attenuation Across USArray Using Ambient Noise Wavefront Tracking. <i>Journal of Geophysical Research: Solid Earth</i> , 2017, 122, 10,086.	3.4	27
49	An improved model for tidally modulated grounding-line migration. <i>Journal of Glaciology</i> , 2015, 61, 216-222.	2.2	26
50	Seismologically determined bedload flux during the typhoon season. <i>Scientific Reports</i> , 2015, 5, 8261.	3.3	26
51	Tidal modulation of ice shelf buttressing stresses. <i>Annals of Glaciology</i> , 2017, 58, 12-20.	1.4	25
52	Predicting short-period, wind-wave-generated seismic noise in coastal regions. <i>Earth and Planetary Science Letters</i> , 2015, 426, 280-292.	4.4	24
53	Offshore Southern California lithospheric velocity structure from noise cross-correlation functions. <i>Journal of Geophysical Research: Solid Earth</i> , 2016, 121, 3415-3427.	3.4	24
54	Measuring Basal Force Fluctuations of Debris Flows Using Seismic Recordings and Empirical Green's Functions. <i>Journal of Geophysical Research F: Earth Surface</i> , 2020, 125, e2020JF005590.	2.8	24

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55	Constraints on the long-period moment-dip tradeoff for the Tohoku earthquake. <i>Geophysical Research Letters</i> , 2011, 38, n/a-n/a.	4.0	23
56	Locating a scatterer in the active volcanic area of Southern Peru from ambient noise cross-correlation. <i>Geophysical Journal International</i> , 2013, 192, 1332-1341.	2.4	22
57	Evidence for non-self-similarity of microearthquakes recorded at a Taiwan borehole seismometer array. <i>Geophysical Journal International</i> , 2016, 206, 757-773.	2.4	22
58	Green's Functions for Surface Waves in a Generic Velocity Structure. <i>Bulletin of the Seismological Society of America</i> , 2014, 104, 2573-2578.	2.3	21
59	Elastic Impact Consequences for High-Frequency Earthquake Ground Motion. <i>Geophysical Research Letters</i> , 2020, 47, e2019GL086302.	4.0	21
60	Geometric and level set tomography using ensemble Kalman inversion. <i>Geophysical Journal International</i> , 2020, 220, 967-980.	2.4	19
61	Extension of the Basin Rayleigh-Wave Amplification Theory to Include Basin-Edge Effects. <i>Bulletin of the Seismological Society of America</i> , 2020, 110, 1305-1322.	2.3	16
62	Rayleigh-Wave H/V via Noise Cross Correlation in Southern California. <i>Bulletin of the Seismological Society of America</i> , 2017, 107, 2021-2027.	2.3	15
63	Frequency-Dependent P Wave Polarization and Its Subwavelength Near-Surface Depth Sensitivity. <i>Geophysical Research Letters</i> , 2019, 46, 14377-14384.	4.0	15
64	Fault Interactions Enhance High-Frequency Earthquake Radiation. <i>Geophysical Research Letters</i> , 2021, 48, e2021GL095271.	4.0	15
65	Are secular correlations between sunspots, geomagnetic activity, and global temperature significant?. <i>Geophysical Research Letters</i> , 2011, 38, n/a-n/a.	4.0	14
66	Explaining extreme ground motion in Osaka basin during the 2011 Tohoku earthquake. <i>Geophysical Research Letters</i> , 2017, 44, 7239-7244.	4.0	14
67	A 3D Broadband Seismometer Array Experiment at the Homestake Mine. <i>Seismological Research Letters</i> , 2018, 89, 2420-2429.	1.9	14
68	Earthquake Source Complexity Controls the Frequency Dependence of Near-Source Radiation Patterns. <i>Geophysical Research Letters</i> , 2021, 48, e2021GL095022.	4.0	14
69	The morning glory wave of southern California. <i>Journal of Geophysical Research</i> , 2004, 109, .	3.3	11
70	Seismologically Observed Spatiotemporal Drainage Activity at Moulins. <i>Journal of Geophysical Research: Solid Earth</i> , 2017, 122, 9095-9108.	3.4	11
71	Impact Versus Frictional Earthquake Models for High-Frequency Radiation in Complex Fault Zones. <i>Journal of Geophysical Research: Solid Earth</i> , 2021, 126, e2021JB022313.	3.4	11
72	Coherence-Based Approaches for Estimating the Composition of the Seismic Wavefield. <i>Journal of Geophysical Research: Solid Earth</i> , 2019, 124, 2941-2956.	3.4	9

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73	Perturbational and nonperturbational inversion of Love-wave velocities. <i>Geophysics</i> , 2020, 85, F19-F26.	2.6	9
74	Did Oldham Discover the Core After All? Handling Imprecise Historical Data with Hierarchical Bayesian Model Selection Methods. <i>Seismological Research Letters</i> , 2020, 91, 1377-1383.	1.9	9
75	Modelling <i>P</i> -waves in seismic noise correlations: advancing fault monitoring using train traffic sources. <i>Geophysical Journal International</i> , 2021, 228, 1556-1567.	2.4	9
76	Toward automated directivity estimates in earthquake moment tensor inversion. <i>Geophysical Journal International</i> , 2017, 211, 1062-1076.	2.4	8
77	Evidence for Fluid Migration During the 2016 Meinong, Taiwan, Aftershock Sequence. <i>Journal of Geophysical Research: Solid Earth</i> , 2020, 125, e2020JB019994.	3.4	8
78	A unified model for transient subglacial water pressure and basal sliding. <i>Journal of Glaciology</i> , 2022, 68, 390-400.	2.2	8
79	A model for subglacial flooding through a preexisting hydrological network during the rapid drainage of supraglacial lakes. <i>Journal of Geophysical Research F: Earth Surface</i> , 2015, 120, 580-603.	2.8	7
80	Was the Mw 7.5 1952 Kern County, California, earthquake induced (or triggered)?. <i>Journal of Seismology</i> , 2017, 21, 1613-1621.	1.3	7
81	Bulk Structure of the Crust and Upper Mantle beneath Alaska from an Approximate Rayleigh-Wave Dispersion Formula. <i>Seismological Research Letters</i> , 2020, 91, 3064-3075.	1.9	7
82	A Physical Model for Volcanic Eruption Tremor. <i>Journal of Geophysical Research: Solid Earth</i> , 2020, 125, e2019JB018980.	3.4	6
83	Star patterns on lake ice. <i>Physical Review E</i> , 2007, 75, 066105.	2.1	5
84	Theoretical Foundations of Noise Interferometry. , 2019, , 109-143.		5
85	Direct Observations of Surface-Wave Eigenfunctions at the Homestake 3D Array. <i>Bulletin of the Seismological Society of America</i> , 2019, 109, 1194-1202.	2.3	5
86	A nonlinear model for resolving the temperature bias of branched glycerol dialkyl glycerol tetraether (brGDGT) temperature proxies. <i>Geochimica Et Cosmochimica Acta</i> , 2022, 327, 158-169.	3.9	5
87	Averaging and sampling for magnetic-observatory hourly data. <i>Annales Geophysicae</i> , 2010, 28, 2079-2096.	1.6	4
88	Time Scale for Rapid Draining of a Surficial Lake Into the Greenland Ice Sheet. <i>Journal of Applied Mechanics, Transactions ASME</i> , 2015, 82, .	2.2	4
89	A simple physics-based improvement to the positive degree day model. <i>Journal of Glaciology</i> , 2018, 64, 661-668.	2.2	4
90	Observations and Modeling of Long-Period Ground-Motion Amplification Across Northeast China. <i>Geophysical Research Letters</i> , 2018, 45, 5968-5976.	4.0	4

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91	Parsimonious Velocity Inversion Applied to the Los Angeles Basin, CA. Journal of Geophysical Research: Solid Earth, 2022, 127, .	3.4	4
92	Time-Dependent Stresses From Fluid Extraction and Diffusion With Applications to Induced Seismicity. Journal of Applied Mechanics, Transactions ASME, 2020, 87, .	2.2	3
93	Validation of a fast semi-analytic method for surface-wave propagation in layered media. Geophysical Journal International, 2019, 219, 1405-1420.	2.4	2
94	A Linear Inversion Approach to Measuring the Composition and Directionality of the Seismic Noise Field. Remote Sensing, 2021, 13, 3097.	4.0	2
95	The Relationship Between Cross Correlations and Green's Functions in Ambient Noise Interferometry with Bayesian Constraints. Geophysical Journal International, 0, , .	2.4	2
96	A Simple Model for Deglacial Meltwater Pulses. Geophysical Research Letters, 2018, 45, 11,742.	4.0	1
97	Seismic Mapping of Subglacial Hydrology Reveals Previously Undetected Pressurization Event. Journal of Geophysical Research F: Earth Surface, 2022, 127, .	2.8	1
98	Introduction to the Special Issue on Mars Seismology. Bulletin of the Seismological Society of America, 2021, 111, 2883-2888.	2.3	1
99	Rayleigh-wave ellipticity in weakly heterogeneous layered media. Geophysical Journal International, 2021, 228, 1313-1323.	2.4	0