Jianghai Xia

List of Publications by Year
in descending order

105 papers	8,856 citations	81743 39 h-index	48187 88 g-index
107 all docs	107 docs citations	107 times ranked	2202 citing authors

#	Article	IF	Citations
1	Multichannel analysis of surface waves. Geophysics, 1999, 64, 800-808.	1.4	2,073
2	Estimation of nearâ€surface shearâ€wave velocity by inversion of Rayleigh waves. Geophysics, 1999, 64, 691-700.	1.4	1,331
3	Imaging dispersion curves of surface waves on multiâ€channel record. , 1998, , .		436
4	Inversion of high frequency surface waves with fundamental and higher modes. Journal of Applied Geophysics, 2003, 52, 45-57.	0.9	384
5	Multichannel analysis of surface waves to map bedrock. The Leading Edge, 1999, 18, 1392-1396.	0.4	375
6	Multichannel analysis of surface waves (MASW)â€"active and passive methods. The Leading Edge, 2007, 26, 60-64.	0.4	233
7	Comparing shear-wave velocity profiles inverted from multichannel surface wave with borehole measurements. Soil Dynamics and Earthquake Engineering, 2002, 22, 181-190.	1.9	217
8	Rayleigh-Wave Dispersive Energy Imaging Using a High-Resolution Linear Radon Transform. Pure and Applied Geophysics, 2008, 165, 903-922.	0.8	212
9	Determining Q of near-surface materials from Rayleigh waves. Journal of Applied Geophysics, 2002, 51, 121-129.	0.9	168
10	Generating an Image of Dispersive Energy by Frequency Decomposition and Slant Stacking. Pure and Applied Geophysics, 2007, 164, 941-956.	0.8	131
11	Estimation of near-surface shear-wave velocities and quality factors using multichannel analysis of surface-wave methods. Journal of Applied Geophysics, 2014, 103, 140-151.	0.9	125
12	Comparing Shear-Wave Velocity Profiles from MASW with Borehole Measurements in Unconsolidated Sediments, Fraser River Delta, B.C., Canada. Journal of Environmental and Engineering Geophysics, 2000, 5, 1-13.	1.0	123
13	Quantitative estimation of minimum offset for multichannel surface-wave survey with actively exciting source. Journal of Applied Geophysics, 2006, 59, 117-125.	0.9	116
14	Advantages of Using Multichannel Analysis of Love Waves (MALW) to Estimate Near-Surface Shear-Wave Velocity. Surveys in Geophysics, 2012, 33, 841-860.	2.1	116
15	Joint inversion of high-frequency surface waves with fundamental and higher modes. Journal of Applied Geophysics, 2007, 62, 375-384.	0.9	104
16	Rayleigh-wave mode separation by high-resolution linear Radon transform. Geophysical Journal International, 2009, 179, 254-264.	1.0	100
17	Multichannel analysis of passive surface waves based on crosscorrelations. Geophysics, 2016, 81, EN57-EN66.	1.4	99
18	Numerical investigation of implementation of air-earth boundary by acoustic-elastic boundary approach. Geophysics, 2007, 72, SM147-SM153.	1.4	98

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19	The Selection of Field Acquisition Parameters for Dispersion Images from Multichannel Surface Wave Data. Pure and Applied Geophysics, 2004, 161, 185-201.	0.8	92
20	A pitfall in shallow shear-wave refraction surveying. Journal of Applied Geophysics, 2002, 51, 1-9.	0.9	84
21	Application of the multiaxial perfectly matched layer (M-PML) to near-surface seismic modeling with Rayleigh waves. Geophysics, 2011, 76, T43-T52.	1.4	84
22	A new passive seismic method based on seismic interferometry and multichannel analysis of surface waves. Journal of Applied Geophysics, 2015, 117, 126-135.	0.9	84
23	Feasibility of detecting near-surface feature with Rayleigh-wave diffraction. Journal of Applied Geophysics, 2007, 62, 244-253.	0.9	79
24	Utilization of high-frequency Rayleigh waves in near-surface geophysics. The Leading Edge, 2004, 23, 753-759.	0.4	75
25	Joint analysis of refractions with surface waves: An inverse solution to the refraction-traveltime problem. Geophysics, 2006, 71, R131-R138.	1.4	75
26	Horizontal resolution of multichannel analysis of surface waves. Geophysics, 2017, 82, EN51-EN66.	1.4	73
27	Underwater MASW to evaluate stiffness of water-bottom sediments. The Leading Edge, 2005, 24, 724-728.	0.4	67
28	Simple equations guide high-frequency surface-wave investigation techniques. Soil Dynamics and Earthquake Engineering, 2006, 26, 395-403.	1.9	67
29	High-frequency Rayleigh-Wave method. Journal of Earth Science (Wuhan, China), 2009, 20, 563-579.	1.1	66
30	Estimation of Elastic Moduli in a Compressible Gibson Half-space by Inverting Rayleigh-wave Phase Velocity. Surveys in Geophysics, 2006, 27, 1-17.	2.1	65
31	Multichannel analysis of surface wave method with the autojuggie. Soil Dynamics and Earthquake Engineering, 2003, 23, 61-65.	1.9	58
32	Useful resorting in surfaceâ€wave method with the Autojuggie. Geophysics, 2003, 68, 1906-1908.	1.4	54
33	Frequencyâ€“Wavenumber (FK)-Based Data Selection in High-Frequency Passive Surface Wave Survey. Surveys in Geophysics, 2018, 39, 661-682.	2.1	51
34	Resolution of High-frequency Rayleigh-wave Data. Journal of Environmental and Engineering Geophysics, 2005, 10, 99-110.	1.0	49
35	Research on the middle-of-receiver-spread assumption of the MASW method. Soil Dynamics and Earthquake Engineering, 2009, 29, 71-79.	1.9	49
36	Love-wave waveform inversion in time domain for shallow shear-wave velocity. Geophysics, 2016, 81, R1-R14.	1.4	49

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37	Estimation of near-surface quality factors by constrained inversion of Rayleigh-wave attenuation coefficients. Journal of Applied Geophysics, 2012, 82, 137-144.	0.9	46
38	Reason and Condition for Mode Kissing in MASW Method. Pure and Applied Geophysics, 2016, 173, 1627-1638.	0.8	46
39	Evaluation of MASW Data Acquired with a Hydrophone Streamer in a Shallow Marine Environment. Journal of Environmental and Engineering Geophysics, 2005, 10, 87-98.	1.0	44
40	Deep Learning for Extracting Dispersion Curves. Surveys in Geophysics, 2021, 42, 69-95.	2.1	44
41	Advantages of calculating shearâ€wave velocity from surface waves with higher modes. , 2000, , .		42
42	Dispersion Energy Analysis of Rayleigh and Love Waves in the Presence of Low-Velocity Layers in Near-Surface Seismic Surveys. Surveys in Geophysics, 2018, 39, 271-288.	2.1	42
43	Calculation of Rayleigh-wave phase velocities due to models with a high-velocity surface layer. Journal of Applied Geophysics, 2013, 96, 1-6.	0.9	39
44	Misidentification caused by leaky surface wave in high-frequency surface wave method. Geophysical Journal International, 2014, 199, 1452-1462.	1.0	39
45	Pseudo-linear-array analysis of passive surface waves based on beamforming. Geophysical Journal International, 2020, 221, 640-650.	1.0	38
46	Estimating Near-Surface Shear-Wave-Velocity Structures Via Multichannel Analysis of Rayleigh and Love Waves: An Experiment at the Boise Hydrogeophysical Research Site. Surveys in Geophysics, 2020, 41, 323-341.	2.1	38
47	Delineating ShallowSâ€Wave Velocity Structure Using Multiple Ambientâ€Noise Surfaceâ€Wave Methods: An Example from Western Junggar, China. Bulletin of the Seismological Society of America, 2016, 106, 327-336.	1.1	36
48	Analysis of group-velocity dispersion of high-frequency Rayleigh waves for near-surface applications. Journal of Applied Geophysics, 2011, 74, 157-165.	0.9	35
49	Modified frequencyâ€“Bessel transform method for dispersion imaging of Rayleigh waves from ambient seismic noise. Geophysical Journal International, 2021, 225, 1271-1280.	1.0	35
50	Verification of correctness of using real part of complex root as Rayleigh-wave phase velocity with synthetic data. Journal of Applied Geophysics, 2013, 88, 94-100.	0.9	34
51	Finite-Difference Modeling and Dispersion Analysis of High-Frequency Love Waves for Near-Surface Applications. Pure and Applied Geophysics, 2010, 167, 1525-1536.	0.8	33
52	Near-surface imaging from traffic-induced surface waves with dense linear arrays: An application in the urban area of Hangzhou, China. Geophysics, 2022, 87, B145-B158.	1.4	33
53	Generation of a pseudo-2D shear-wave velocity section by inversion of a series of 1D dispersion curves. Journal of Applied Geophysics, 2008, 64, 115-124.	0.9	31
54	Numerical investigation of MASW applications in presence of surface topography. Journal of Applied Geophysics, 2012, 84, 52-60.	0.9	31

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55	A comprehensive comparison between the refraction microtremor and seismic interferometry methods for phase-velocity estimation. Geophysics, 2017, 82, EN99-EN108.	1.4	29
56	Dipping-interface Mapping Using Mode-separated Rayleigh Waves. Pure and Applied Geophysics, 2009, 166, 353-374.	0.8	28
57	Automated Data Selection in the Tauâ€“p Domain: Application to Passive Surface Wave Imaging. Surveys in Geophysics, 2019, 40, 1211-1228.	2.1	27
58	Comparative analysis on penetrating depth of high-frequency Rayleigh and Love waves. Journal of Applied Geophysics, 2014, 111, 86-94.	0.9	26
59	Highâ€Resolution Ambient Noise Imaging of Geothermal Reservoir Using 3C Dense Seismic Nodal Array and Ultraâ€Short Observation. Journal of Geophysical Research: Solid Earth, 2021, 126, e2021JB021827.	1.4	23
60	Integrated Geophysical Techniques in Detecting Hidden Dangers in River Embankments. Journal of Environmental and Engineering Geophysics, 2006, 11, 83-94.	1.0	22
61	Wave fields and spectra of Rayleigh waves in poroelastic media in the exploration seismic frequency band. Advances in Water Resources, 2012, 49, 62-71.	1.7	22
62	Near-Surface Geothermal Reservoir Imaging based on the Customized Dense Seismic Network. Surveys in Geophysics, 2021, 42, 673-697.	2.1	21
63	Data-resolution Matrix and Model-resolution Matrix for Rayleigh-wave Inversion Using a Damped Least-squares Method. Pure and Applied Geophysics, 2008, 165, 1227-1248.	0.8	19
64	Near-surface shear-wave velocities and quality factors derived from high-frequency surface waves. The Leading Edge, 2013, 32, 612-618.	0.4	18
65	Approximation to Cutoffs of Higher Modes of Rayleigh Waves for a Layered Earth Model. Pure and Applied Geophysics, 2009, 166, 339-351.	0.8	17
66	A Trade-Off Solution between Model Resolution and Covariance in Surface-Wave Inversion. Pure and Applied Geophysics, 2010, 167, 1537-1547.	0.8	16
67	Phase-weighted slant stacking for surface wave dispersion measurement. Geophysical Journal International, 2021, 226, 256-269.	1.0	15
68	Improving the retrieval of high-frequency surface waves from ambient noise through multichannel-coherency-weighted stack. Geophysical Journal International, 2021, 227, 776-785.	1.0	15
69	Unraveling overtone interferences in Love-wave phase velocity measurements by radon transform. Geophysical Journal International, 2015, 203, 327-333.	1.0	14
70	Impact of density information on Rayleigh surface wave inversion results. Journal of Applied Geophysics, 2016, 135, 43-54.	0.9	14
71	Estimating Q Factor from Multi-mode Shallow-Seismic Surface Waves. Pure and Applied Geophysics, 2018, 175, 2609-2622.	0.8	14
72	Imposing Active Sources during High-Frequency Passive Surface-Wave Measurement. Engineering, 2018, 4, 685-693.	3.2	14

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73	Estimation of horizontal-to-vertical spectral ratios (ellipticity) of Rayleigh waves from multistation active-seismic records. Geophysics, 2019, 84, EN81-EN92.	1.4	14
74	Feasibility of determining Q of near-surface materials from Love waves. Journal of Applied Geophysics, 2013, 95, 47-52.	0.9	13
75	A moving hum filter to suppress rotor noise in high-resolution airborne magnetic data. Geophysics, 2005, 70, G69-G76.	1.4	12
76	Surface-wave observations after integrating active and passive source data. The Leading Edge, 2013, 32, 634-637.	0.4	11
77	Multichannel analysis of Love waves in a 3D seismic acquisition system. Geophysics, 2016, 81, EN67-EN74.	1.4	10
78	A pitfall of muting and removing bad traces in surface-wave analysis. Journal of Applied Geophysics, 2018, 153, 136-142.	0.9	9
79	Passive Surface-Wave Waveform Inversion for Source-Velocity Joint Imaging. Surveys in Geophysics, 2022, 43, 853-881.	2.1	9
80	Transient responses of porous media under moving surface impulses. International Journal of Solids and Structures, 2014, 51, 660-672.	1.3	8
81	On effective characteristic of Rayleigh surface wave propagation in porous fluid-saturated media at low frequencies. Soil Dynamics and Earthquake Engineering, 2014, 57, 94-103.	1.9	8
82	Finite-difference modeling of SH-wave conversions in shallow shear-wave refraction surveying. Journal of Applied Geophysics, 2015, 119, 71-78.	0.9	8
83	Q-estimation using seismic interferometry from vertical well data. Journal of Applied Geophysics, 2018, 159, 16-22.	0.9	8
84	On dispersive propagation of surface waves in patchy saturated porous media. Wave Motion, 2014, 51, 1225-1236.	1.0	7
85	Potential Misidentification of Love-Wave Phase Velocity Based on Three-Component Ambient Seismic Noise. Pure and Applied Geophysics, 2016, 173, 1115-1124.	0.8	7
86	Wavefield-Separated Full-Waveform Inversion of Shallow-Seismic Rayleigh Waves. Pure and Applied Geophysics, 2022, 179, 1583-1596.	0.8	6
87	Groundwater Flow Rate Prediction From Geoâ€Electrical Features Using Support Vector Machines. Water Resources Research, 2022, 58, .	1.7	6
88	Advantages of Multi-channel Analysis of Passive Surface Waves (MAPS). , 2017, , .		4
89	Viscoelastic representation of surface waves in patchy saturated poroelastic media. Earthquake Science, 2014, 27, 421-431.	0.4	2
90	Some new findings in high-frequency surface-wave methods. , 2015, , .		2

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91	Urban near-surface imaging from ambient noise tomography using dense seismic networks. IOP Conference Series: Earth and Environmental Science, 2021, 660, 012058.	0.2	2
92	Common-midpoint two-station analysis of estimating phase velocity using high-frequency ambient noise. Soil Dynamics and Earthquake Engineering, 2022, 159, 107356.	1.9	2
93	Imposing active sources during high-frequency passive surface-wave measurements. , 2018, , .		1
94	Comparisons between non-interferometric and interferometric passive surface wave imaging methods â€“ Towards linear receiver array. , 2020, , .		1
95	Near-surface shear-wave velocities and quality factors derived from high-frequency surface waves. , 2013, , .		0
96	Characteristics of high-frequency surface waves in a multi-layer earth model. , 2015, , .		0
97	Numerical investigation of 3D MASW technique. , 2015, , .		0
98	Ï„Ï•based data selection in high-frequency passive surface-wave survey: Towards traffic noise. , 2018, , .		0
99	Modified Frequency-Bessel Transform Method for Dispersion Imaging of Rayleigh Wave from Ambient Seismic Noise. IOP Conference Series: Earth and Environmental Science, 2021, 660, 012049.	0.2	0
100	An Automated Segment Selection Algorithm Based on the Assessment of Surface Wave Characteristic in Ambient Noise Recordings. IOP Conference Series: Earth and Environmental Science, 2021, 660, 012041.	0.2	0
101	Estimation of near-surface shear-wave velocity by joint inversion of dispersion and HVSR curves of Rayleigh waves from multicomponent active-seismic records. IOP Conference Series: Earth and Environmental Science, 2021, 660, 012056.	0.2	0
102	Feasibility of determining Q of near-surface materials from Love waves. , 2013, , .		0
103	Segment selection in cultural noise recordings for imaging near-surface surface waves. , 2019, , .		0
104	Segment selection of cultural noise recordings in urban environment to improve quality of surface-wave image. , 2020, , .		0
105	Multisource multichannel analysis of surface waves for near-surface characterization in urban areas. , 2021, , .		0