

Xinming Wu

List of Publications by Year in descending order

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Version: 2024-02-01

92
papers

2,819
citations

201575

27
h-index

197736

49
g-index

93
all docs

93
docs citations

93
times ranked

1023
citing authors

#	ARTICLE	IF	CITATIONS
1	FaultSeg3D: Using synthetic data sets to train an end-to-end convolutional neural network for 3D seismic fault segmentation. <i>Geophysics</i> , 2019, 84, IM35-IM45.	1.4	484
2	Directional structure-tensor-based coherence to detect seismic faults and channels. <i>Geophysics</i> , 2017, 82, A 13-A 17.	1.4	132
3	Building realistic structure models to train convolutional neural networks for seismic structural interpretation. <i>Geophysics</i> , 2020, 85, WA27-WA39.	1.4	130
4	3D seismic image processing for faults. <i>Geophysics</i> , 2016, 81, IM1-IM11.	1.4	124
5	SaltSeg: Automatic 3D salt segmentation using a deep convolutional neural network. <i>Interpretation</i> , 2019, 7, SE113-SE122.	0.5	121
6	Horizon volumes with interpreted constraints. <i>Geophysics</i> , 2015, 80, IM21-IM33.	1.4	97
7	FaultNet3D: Predicting Fault Probabilities, Strikes, and Dips With a Single Convolutional Neural Network. <i>IEEE Transactions on Geoscience and Remote Sensing</i> , 2019, 57, 9138-9155.	2.7	97
8	Convolutional neural networks for fault interpretation in seismic images. , 2018, , .		83
9	Automatic salt-body classification using deep-convolutional neural network. , 2018, , .		71
10	Automatic fault interpretation with optimal surface voting. <i>Geophysics</i> , 2018, 83, O67-O82.	1.4	69
11	Application of a convolutional neural network in permeability prediction: A case study in the Jacksonburg-Stringtown oil field, West Virginia, USA. <i>Geophysics</i> , 2019, 84, B363-B373.	1.4	64
12	Least-squares horizons with local slopes and multigrid correlations. <i>Geophysics</i> , 2018, 83, IM29-IM40.	1.4	62
13	Generating a relative geologic time volume by 3D graph-cut phase unwrapping method with horizon and unconformity constraints. <i>Geophysics</i> , 2012, 77, O21-O34.	1.4	61
14	Hankel Low-Rank Approximation for Seismic Noise Attenuation. <i>IEEE Transactions on Geoscience and Remote Sensing</i> , 2019, 57, 561-573.	2.7	61
15	ADDCNN: An Attention-Based Deep Dilated Convolutional Neural Network for Seismic Facies Analysis With Interpretable Spatial“Spectral Maps. <i>IEEE Transactions on Geoscience and Remote Sensing</i> , 2021, 59, 1733-1744.	2.7	61
16	Multitask learning for local seismic image processing: fault detection, structure-oriented smoothing with edge-preserving, and seismic normal estimation by using a single convolutional neural network. <i>Geophysical Journal International</i> , 2019, 219, 2097-2109.	1.0	52
17	Missing well log prediction using convolutional long short-term memory network. <i>Geophysics</i> , 2020, 85, WA159-WA171.	1.4	51
18	Directional structure tensors in estimating seismic structural and stratigraphic orientations. <i>Geophysical Journal International</i> , 2017, 210, 534-548.	1.0	49

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19	Deep learning for relative geologic time and seismic horizons. <i>Geophysics</i> , 2020, 85, WA87-WA100.	1.4	47
20	Methods to compute salt likelihoods and extract salt boundaries from 3D seismic images. <i>Geophysics</i> , 2016, 81, IM119-IM126.	1.4	46
21	Waveform embedding: Automatic horizon picking with unsupervised deep learning. <i>Geophysics</i> , 2020, 85, WA67-WA76.	1.4	45
22	Deep learning for multidimensional seismic impedance inversion. <i>Geophysics</i> , 2021, 86, R735-R745.	1.4	45
23	Structure-, stratigraphy- and fault-guided regularization in geophysical inversion. <i>Geophysical Journal International</i> , 2017, 210, 184-195.	1.0	44
24	Automatically interpreting all faults, unconformities, and horizons from 3D seismic images. <i>Interpretation</i> , 2016, 4, T227-T237.	0.5	40
25	Methods to enhance seismic faults and construct fault surfaces. <i>Computers and Geosciences</i> , 2017, 107, 37-48.	2.0	40
26	Inversion of Time-lapse Seismic Reservoir Monitoring Data Using CycleGAN: A Deep Learning-Based Approach for Estimating Dynamic Reservoir Property Changes. <i>Journal of Geophysical Research: Solid Earth</i> , 2020, 125, e2019JB018408.	1.4	39
27	Moving faults while unfaulting 3D seismic images. <i>Geophysics</i> , 2016, 81, IM25-IM33.	1.4	38
28	3D seismic image processing for unconformities. <i>Geophysics</i> , 2015, 80, IM35-IM44.	1.4	32
29	Building 3D subsurface models conforming to seismic structural and stratigraphic features. <i>Geophysics</i> , 2017, 82, IM21-IM30.	1.4	29
30	Deep Learning for Simultaneous Seismic Image Super-Resolution and Denoising. <i>IEEE Transactions on Geoscience and Remote Sensing</i> , 2022, 60, 1-11.	2.7	26
31	Deep Learning for Characterizing Paleokarst Collapse Features in 3D Seismic Images. <i>Journal of Geophysical Research: Solid Earth</i> , 2020, 125, e2020JB019685.	1.4	25
32	Deep learning for velocity model building with common-image gather volumes. <i>Geophysical Journal International</i> , 2021, 228, 1054-1070.	1.0	24
33	Extracting horizons and sequence boundaries from 3D seismic images. , 2013, , .		23
34	Waveform inversion for attenuation estimation in anisotropic media. <i>Geophysics</i> , 2017, 82, WA83-WA93.	1.4	23
35	Deep Relative Geologic Time: A Deep Learning Method for Simultaneously Interpreting 3D Seismic Horizons and Faults. <i>Journal of Geophysical Research: Solid Earth</i> , 2021, 126, e2021JB021882.	1.4	23
36	Simultaneous multiple well-seismic ties using flattened synthetic and real seismograms. <i>Geophysics</i> , 2017, 82, IM13-IM20.	1.4	22

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37	Fast salt boundary interpretation with optimal path picking. <i>Geophysics</i> , 2018, 83, O45-O53.	1.4	21
38	Detecting faults and channels while enhancing seismic structural and stratigraphic features. <i>Interpretation</i> , 2019, 7, T155-T166.	0.5	20
39	Missing log data interpolation and semiautomatic seismic well ties using data matching techniques. <i>Interpretation</i> , 2019, 7, T347-T361.	0.5	20
40	ChannelSeg3D: Channel simulation and deep learning for channel interpretation in 3D seismic images. <i>Geophysics</i> , 2021, 86, IM73-IM83.	1.4	19
41	Seismic horizon extraction with dynamic programming. <i>Geophysics</i> , 2021, 86, IM51-IM62.	1.4	18
42	Relative geologic time estimation using a deep convolutional neural network. , 2019, , .		15
43	Deep Learning for Efficient Microseismic Location Using Source Migration-Based Imaging. <i>Journal of Geophysical Research: Solid Earth</i> , 2022, 127, .	1.4	15
44	On joint optimization of sensing matrix and sparsifying dictionary for robust compressed sensing systems. , 2018, 73, 62-71.		14
45	Predictive painting across faults. <i>Interpretation</i> , 2018, 6, T449-T455.	0.5	11
46	FaultNet: A deep CNN model for 3D automated fault picking. , 2019, , .		11
47	Comparing convolutional neural networking and image processing seismic fault detection methods. , 2020, , .		11
48	Deep learning for local seismic image processing: Fault detection, structure-oriented smoothing with edge-preserving, and slope estimation by using a single convolutional neural network. , 2019, , .		10
49	Relative time seislet transform. <i>Geophysics</i> , 2020, 85, V223-V232.	1.4	10
50	Deep learning parameterization for geophysical inverse problems. , 2020, , .		10
51	Least-squares diffraction imaging using shaping regularization by anisotropic smoothing. <i>Geophysics</i> , 2020, 85, S313-S325.	1.4	9
52	3D seismic image processing for faults. , 2015, , .		8
53	Incremental correlation of multiple well logs following geologically optimal neighbors. <i>Interpretation</i> , 2018, 6, T713-T722.	0.5	8
54	Interactively tracking seismic geobodies with a deep-learning flood-filling network. <i>Geophysics</i> , 2021, 86, A1-A5.	1.4	8

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55	Semisupervised salt segmentation using mean teacher. Interpretation, 2022, 10, SE21-SE29.	0.5	8
56	Data-driven method for an improved linearised AVO inversion. Journal of Geophysics and Engineering, 2021, 18, 1-22.	0.7	7
57	Fast salt-boundary interpretation with optimal path picking. , 2017, , .		6
58	Unconventional Reservoir Characterization Using Azimuthal Seismic Diffraction Imaging. , 2017, , .		6
59	A method for generating a seismic Wheeler volume via a relative geologic time volume. , 2012, , .		5
60	Automatic fault interpretation using optimal surface voting. , 2018, , .		5
61	Building subsurface models with horizon-guided interpolation and deep learning: Application to the Volve field data. Geophysics, 2022, 87, B233-B245.	1.4	5
62	Incremental correlation of multiple well logs following geologically optimal neighbors. , 2017, , .		4
63	Improving fault surface construction with inversion-based methods. Geophysics, 2021, 86, IM1-IM14.	1.4	4
64	Moving faults while unfaulting 3D seismic images. , 2015, , .		4
65	Channel simulation and deep learning for channel interpretation in 3D seismic images. , 2020, , .		4
66	3D relative geologic time estimation with deep learning. , 2020, , .		4
67	Seismic Horizon Identification Using Semi-Supervised Learning With Virtual Adversarial Training. IEEE Transactions on Geoscience and Remote Sensing, 2022, 60, 1-11.	2.7	4
68	Well-log interpolation guided by geologic distance. , 2017, , .		3
69	Semiautomatic seismic well ties and log data interpolation. , 2017, , .		3
70	Predictive painting across faults. , 2017, , .		3
71	3D diffraction separation and imaging using an adaptive rank-reduction method. , 2019, , .		3
72	Deep learning for simultaneous seismic image super-resolution and denoising. , 2020, , .		3

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73	Deep learning for characterizing paleokarst features in 3D seismic images. , 2020, , .		3
74	Simultaneous multiple well-seismic ties using flattened synthetic and real seismograms. , 2016, , .		2
75	Least-squares diffraction imaging using shaping regularization by anisotropic smoothing. , 2018, , .		2
76	Interactive tracking of seismic geobodies using deep learning flood-filling network. , 2019, , .		2
77	Kernel prediction network for common image gather stacking. , 2020, , .		2
78	Geologic-time-based interpolation of borehole data for building high-resolution models: Methods and applications. Geophysics, 2022, 87, IM67-IM80.	1.4	2
79	Toward accurate seismic flattening: Methods and applications. Geophysics, 2022, 87, IM177-IM188.	1.4	2
80	Horizon volumes with interpreted constraints. , 2014, , .		1
81	Least-squares seismic horizons with local slopes and multigrid correlations. , 2018, , .		1
82	Introduction to special section: Machine learning in seismic data analysis. Interpretation, 2019, 7, SEi-SEii.	0.5	1
83	Building realistic structure models to train convolutional neural networks for seismic structural interpretation. , 2019, , .		1
84	Wavelet estimation and nonstretching NMO correction. Geophysics, 2022, 87, V193-V203.	1.4	1
85	Methods to compute salt likelihoods and extract salt boundaries from 3D seismic images. , 2016, , .		0
86	Introduction to special section: Seismic geometric attributes. Interpretation, 2019, 7, SCi-SCi.	0.5	0
87	Implicit structural modeling of geological structures with deep learning. , 2021, , .		0
88	Building subsurface models with horizon-guided interpolation and deep learning: Applied to the Volve field. , 2021, , .		0
89	Seismic horizon identification using semisupervised learning with virtual adversarial training. , 2021, , .		0
90	3D seismic image processing for interpretation and subsurface modeling. , 2017, , .		0

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91	Structure-guided harmonic and bihamonic interpolation. , 2018, , .		0
92	Seismic horizon refinement with dynamic programming. , 2020, , .		0