Sergey B Fomel

List of Publications by Year in descending order

Source: https://exaly.com/author-pdf/6713950/publications.pdf

Version: 2024-02-01

374 papers

12,600 citations

28190 55 h-index 99 g-index

375 all docs 375 docs citations

375 times ranked

2665 citing authors

#	Article	IF	CITATIONS
1	Applications of planeâ€wave destruction filters. Geophysics, 2002, 67, 1946-1960.	1.4	645
2	FaultSeg3D: Using synthetic data sets to train an end-to-end convolutional neural network for 3D seismic fault segmentation. Geophysics, 2019, 84, IM35-IM45.	1.4	484
3	Angleâ€domain commonâ€image gathers by wavefield continuation methods. Geophysics, 2003, 68, 1065-1074.	1.4	449
4	Shaping regularization in geophysical-estimation problems. Geophysics, 2007, 72, R29-R36.	1.4	350
5	Local seismic attributes. Geophysics, 2007, 72, A29-A33.	1.4	350
6	Seislet transform and seislet frame. Geophysics, 2010, 75, V25-V38.	1.4	332
7	Time-shift imaging condition in seismic migration. Geophysics, 2006, 71, S209-S217.	1.4	298
8	Poststack velocity analysis by separation and imaging of seismic diffractions. Geophysics, 2007, 72, U89-U94.	1.4	297
9	Random noise attenuation using local signal-and-noise orthogonalization. Geophysics, 2015, 80, WD1-WD9.	1.4	286
10	Iterative deblending of simultaneous-source seismic data using seislet-domain shaping regularization. Geophysics, 2014, 79, V179-V189.	1.4	255
11	Seismic wave extrapolation using lowrank symbol approximation. Geophysical Prospecting, 2013, 61, 526-536.	1.0	223
12	Double-sparsity dictionary for seismic noise attenuation. Geophysics, 2016, 81, V103-V116.	1.4	174
13	Separation and imaging of seismic diffractions using migrated dip-angle gathers. Geophysics, 2012, 77, S131-S143.	1.4	170
14	Seismic imaging of incomplete data and simultaneous-source data using least-squares reverse time migration with shaping regularization. Geophysics, 2016, 81, S11-S20.	1.4	159
15	Predictive painting of 3D seismic volumes. Geophysics, 2010, 75, A25-A30.	1.4	153
16	Seismic reflection data interpolation with differential offset and shot continuation. Geophysics, 2003, 68, 733-744.	1.4	144
17	On anelliptic approximations for qP velocities in VTI media. Geophysical Prospecting, 2004, 52, 247-259.	1.0	142
18	Stacking seismic data using local correlation. Geophysics, 2009, 74, V43-V48.	1.4	140

#	Article	IF	CITATIONS
19	Velocity analysis using <i>AB</i> semblance. Geophysical Prospecting, 2009, 57, 311-321.	1.0	134
20	Building realistic structure models to train convolutional neural networks for seismic structural interpretation. Geophysics, 2020, 85, WA27-WA39.	1.4	130
21	Generalized nonhyperbolic moveout approximation. Geophysics, 2010, 75, U9-U18.	1.4	128
22	Fast sweeping method for the factored eikonal equation. Journal of Computational Physics, 2009, 228, 6440-6455.	1.9	122
23	Adaptive multiple subtraction using regularized nonstationary regression. Geophysics, 2009, 74, V25-V33.	1.4	121
24	SaltSeg: Automatic 3D salt segmentation using a deep convolutional neural network. Interpretation, 2019, 7, SE113-SE122.	0.5	121
25	Viscoacoustic modeling and imaging using low-rank approximation. Geophysics, 2015, 80, A103-A108.	1.4	116
26	Timeâ€migration velocity analysis by velocity continuation. Geophysics, 2003, 68, 1662-1672.	1.4	109
27	Fast algorithms for elastic-wave-mode separation and vector decomposition using low-rank approximation for anisotropic media. Geophysics, 2014, 79, C97-C110.	1.4	108
28	Velocity-independent time-domain seismic imaging using local event slopes. Geophysics, 2007, 72, S139-S147.	1.4	107
29	Separation, imaging, and velocity analysis of seismic diffractions using migrated dipâ€angle gathers. , 2008, , .		105
30	Flattening without picking. Geophysics, 2006, 71, P13-P20.	1.4	104
31	Lowrank finite-differences and lowrank Fourier finite-differences for seismic wave extrapolation in the acoustic approximation. Geophysical Journal International, 2013, 193, 960-969.	1.0	103
32	Q-compensated least-squares reverse time migration using low-rank one-step wave extrapolation. Geophysics, 2016, 81, S271-S279.	1.4	97
33	FaultNet3D: Predicting Fault Probabilities, Strikes, and Dips With a Single Convolutional Neural Network. IEEE Transactions on Geoscience and Remote Sensing, 2019, 57, 9138-9155.	2.7	97
34	Azimuth moveout for 3-D prestack imaging. Geophysics, 1998, 63, 574-588.	1.4	96
35	Guest Editors' Introduction: Reproducible Research. Computing in Science and Engineering, 2009, 11, 5-7.	1.2	91
36	Separation and imaging of seismic diffractions using planeâ€wave decomposition. , 2006, , .		89

#	Article	IF	Citations
37	Time-frequency analysis of seismic data using local attributes. Geophysics, 2011, 76, P23-P34.	1.4	88
38	Seismic data analysis using local timeâ€frequency decomposition. Geophysical Prospecting, 2013, 61, 516-525.	1.0	86
39	EMD-seislet transform. Geophysics, 2018, 83, A27-A32.	1.4	86
40	Nonlinear structureâ€enhancing filtering using planeâ€wave prediction*. Geophysical Prospecting, 2010, 58, 415-427.	1.0	84
41	Convolutional neural networks for fault interpretation in seismic images. , 2018, , .		83
42	A Bayesian approach to estimate uncertainty for full-waveform inversion using a priori information from depth migration. Geophysics, 2016, 81, R307-R323.	1.4	82
43	Velocity continuation and the anatomy of residual prestack time migration. Geophysics, 2003, 68, 1650-1661.	1.4	77
44	Seismic data interpolation beyond aliasing using regularized nonstationary autoregression. Geophysics, 2011, 76, V69-V77.	1.4	76
45	Automatic channel detection using deep learning. Interpretation, 2019, 7, SE43-SE50.	0.5	75
46	Seismic data decomposition into spectral components using regularized nonstationary autoregression. Geophysics, 2013, 78, O69-O76.	1.4	74
47	Nonstationary phase estimation using regularized local kurtosis maximization. Geophysics, 2009, 74, A75-A80.	1.4	73
48	Fast-phase space computation of multiple arrivals. Proceedings of the National Academy of Sciences of the United States of America, 2002, 99, 7329-7334.	3.3	72
49	Time-lapse image registration using the local similarity attribute. Geophysics, 2009, 74, A7-A11.	1.4	72
50	Automatic salt-body classification using deep-convolutional neural network., 2018,,.		71
51	Automatic fault interpretation with optimal surface voting. Geophysics, 2018, 83, O67-O82.	1.4	69
52	Low-rank one-step wave extrapolation for reverse time migration. Geophysics, 2016, 81, S39-S54.	1.4	67
53	Pathâ€integral seismic imaging. Geophysical Prospecting, 2006, 54, 491-503.	1.0	66
54	Monitoring CO2 response on surface seismic data; a rock physics and seismic modeling feasibility study at the CO2 sequestration site, Ketzin, Germany. Journal of Applied Geophysics, 2010, 71, 109-124.	0.9	64

#	Article	IF	CITATIONS
55	Least-squares horizons with local slopes and multigrid correlations. Geophysics, 2018, 83, IM29-IM40.	1.4	62
56	Regularizing seismic inverse problems by model reparameterization using plane-wave construction. Geophysics, 2006, 71, A43-A47.	1.4	61
57	Implementing the fast marching eikonal solver: spherical versus Cartesian coordinates. Geophysical Prospecting, 2001, 49, 165-178.	1.0	59
58	Building good starting models for full-waveform inversion using adaptive matching filtering misfit. Geophysics, 2016, 81, U61-U72.	1.4	59
59	Seismic velocity estimation from time migration. Inverse Problems, 2007, 23, 1329-1369.	1.0	57
60	On an elliptic approximations for qP velocities in transversely isotropic and orthorhombic media. Geophysics, 2015, 80, C89-C105.	1.4	57
61	Signal and noise separation in prestack seismic data using velocity-dependent seislet transform. Geophysics, 2015, 80, WD117-WD128.	1.4	56
62	Theory of 3â€D angle gathers in waveâ€equation imaging. , 2004, , .		56
63	Riemannian wavefield extrapolation. Geophysics, 2005, 70, T45-T56.	1.4	55
64	Seismic data interpolation using CycleGAN. , 2019, , .		55
65	Fourier finite-difference wave propagation. Geophysics, 2011, 76, T123-T129.	1.4	54
66	Seismic data interpolation using deep learning with generative adversarial networks. Geophysical Prospecting, 2021, 69, 307-326.	1.0	54
67	The space-time domain: theory and modelling for anisotropic media. Geophysical Journal International, 2001, 144, 105-113.	1.0	53
68	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. Geophysical Journal International, 2019, 219, 2097-2109.	1.0	52
69	Seismic groundâ€roll noise attenuation using deep learning. Geophysical Prospecting, 2020, 68, 2064-2077.	1.0	52
70	Multidimensional recursive filter preconditioning in geophysical estimation problems. Geophysics, 2003, 68, 577-588.	1.4	51
71	Nonâ€hyperbolic common reflection surface. Geophysical Prospecting, 2013, 61, 21-27.	1.0	50
72	Improving the resolution of migrated images by approximating the inverse Hessian using deep learning. Geophysics, 2020, 85, WA173-WA183.	1.4	50

#	Article	IF	Citations
73	Coordinateâ€independent angleâ€gathers for wave equation migration. , 2005, , .		49
74	Deep learning for relative geologic time and seismic horizons. Geophysics, 2020, 85, WA87-WA100.	1.4	47
75	Accelerated plane-wave destruction. Geophysics, 2013, 78, V1-V9.	1.4	46
76	Lowrank seismic-wave extrapolation on a staggered grid. Geophysics, 2014, 79, T157-T168.	1.4	45
77	Waveform embedding: Automatic horizon picking with unsupervised deep learning. Geophysics, 2020, 85, WA67-WA76.	1.4	45
78	Time-to-depth conversion and seismic velocity estimation using time-migration velocity. Geophysics, 2008, 73, VE205-VE210.	1.4	44
79	Wave-equation angle-domain common-image gathers for converted waves. Geophysics, 2008, 73, S17-S26.	1.4	44
80	Diffraction imaging and time-migration velocity analysis using oriented velocity continuation. Geophysics, 2017, 82, U25-U35.	1.4	44
81	Accelerating full-waveform inversion with attenuation compensation. Geophysics, 2018, 83, A13-A20.	1.4	43
82	Amplitudeâ€preserved common image gathers by waveâ€equation migration. , 2001, , .		41
83	Automatic approaches for seismic to well tying. Interpretation, 2014, 2, SD9-SD17.	0.5	41
84	OC-seislet: Seislet transform construction with differential offset continuation. Geophysics, 2010, 75, WB235-WB245.	1.4	40
85	Seismic diffraction interpretation at Piceance Creek. Interpretation, 2015, 3, SF1-SF14.	0.5	40
86	A multistep approach to multicomponent seismic image registration with application to a West Texas carbonate reservoir study., 2005,,.		39
87	SCALODEEP: A Highly Generalized Deep Learning Framework for Realâ€Time Earthquake Detection. Journal of Geophysical Research: Solid Earth, 2021, 126, e2020JB021473.	1.4	39
88	3-D traveltime computation using Huygens wavefront tracing. Geophysics, 2001, 66, 883-889.	1.4	38
89	Investigating the possibility of locating microseismic sources using distributed sensor networks., 2015,,.		38
90	Full-waveform inversion of passive seismic data for sources and velocities., 2016,,.		38

#	Article	IF	Citations
91	Structural uncertainty of time-migrated seismic images. Journal of Applied Geophysics, 2014, 101, 27-30.	0.9	37
92	Theory of differential offset continuation. Geophysics, 2003, 68, 718-732.	1.4	36
93	Full-waveform inversion using seislet regularization. Geophysics, 2017, 82, A43-A49.	1.4	36
94	Multicomponent seismic data registration by least squares. , 2003, , .		35
95	Iterative resolution estimation in least-squares Kirchhoff migration. Geophysical Prospecting, 2002, 50, 577-588.	1.0	34
96	Seismic wave extrapolation using lowrank symbol approximation. , 2010, , .		32
97	A fast butterfly algorithm for generalized Radon transforms. Geophysics, 2013, 78, U41-U51.	1.4	32
98	Selecting an optimal aperture in Kirchhoff migration using dip-angle images. Geophysics, 2013, 78, S243-S254.	1.4	31
99	Carbonate reservoir characterization using seismic diffraction imaging. Interpretation, 2015, 3, SF21-SF30.	0.5	31
100	3D generalized nonhyperboloidal moveout approximation. Geophysics, 2017, 82, C49-C59.	1.4	30
101	First-break traveltime tomography with the double-square-root eikonal equation. Geophysics, 2013, 78, U89-U101.	1.4	28
102	Velocity-independent Ï"-p moveout in a horizontally layered VTI medium. Geophysics, 2011, 76, U45-U57.	1.4	27
103	Omnidirectional plane-wave destruction. Geophysics, 2013, 78, V171-V179.	1.4	26
104	Dataâ€driven time–frequency analysis of seismic data using nonâ€stationary Prony method. Geophysical Prospecting, 2018, 66, 85-97.	1.0	26
105	Preconditioning least-squares RTM in viscoacoustic media by <i>Q</i> -compensated RTM., 2015,,.		25
106	A comparison of diffraction imaging to incoherence and curvature. The Leading Edge, 2016, 35, 86-89.	0.4	25
107	Predictive coherence. Interpretation, 2015, 3, SAE1-SAE7.	0.5	24
108	Elastic waveâ€vector decomposition in heterogeneous anisotropic media. Geophysical Prospecting, 2017, 65, 1231-1245.	1.0	24

#	Article	IF	CITATIONS
109	Deep learning for velocity model building with common-image gather volumes. Geophysical Journal International, 2021, 228, 1054-1070.	1.0	24
110	Regularizing velocity estimation using geologic dip information. , 1998, , .		24
111	Towards the seislet transform. , 2006, , .		23
112	Waveâ€equation commonâ€angle gathers for converted waves. , 2005, , .		22
113	Time-lapse seismic data registration and inversion for CO2 sequestration study at Cranfield. Geophysics, 2013, 78, B329-B338.	1.4	22
114	A robust approach to timeâ€ŧoâ€depth conversion and interval velocity estimation from time migration in the presence of lateral velocity variations. Geophysical Prospecting, 2015, 63, 315-337.	1.0	22
115	Time-variant wavelet extraction with a local-attribute-based time-frequency decomposition for seismic inversion. Interpretation, 2017, 5, SC9-SC16.	0.5	22
116	Nonlinear shaping regularization in geophysical inverse problems. , 2008, , .		21
117	Generalized nonelliptic moveout approximation in Ï"-p domain. Geophysics, 2012, 77, U23-U30.	1.4	21
118	EMD-seislet transform., 2015,,.		21
118	EMD-seislet transform. , 2015, , . Fast salt boundary interpretation with optimal path picking. Geophysics, 2018, 83, O45-O53.	1.4	21
		1.4	
119	Fast salt boundary interpretation with optimal path picking. Geophysics, 2018, 83, 045-053. Least-squares path-summation diffraction imaging using sparsity constraints. Geophysics, 2019, 84,		21
119	Fast salt boundary interpretation with optimal path picking. Geophysics, 2018, 83, O45-O53. Least-squares path-summation diffraction imaging using sparsity constraints. Geophysics, 2019, 84, S187-S200.	1.4	21
119 120 121	Fast salt boundary interpretation with optimal path picking. Geophysics, 2018, 83, O45-O53. Least-squares path-summation diffraction imaging using sparsity constraints. Geophysics, 2019, 84, S187-S200. Generalized velocity approximation. Geophysics, 2019, 84, C27-C40. Fractal heterogeneities in sonic logs and low-frequency scattering attenuation. Geophysics, 2009, 74,	1.4	21 21 21
119 120 121 122	Fast salt boundary interpretation with optimal path picking. Geophysics, 2018, 83, O45-O53. Least-squares path-summation diffraction imaging using sparsity constraints. Geophysics, 2019, 84, S187-S200. Generalized velocity approximation. Geophysics, 2019, 84, C27-C40. Fractal heterogeneities in sonic logs and low-frequency scattering attenuation. Geophysics, 2009, 74, WA77-WA92.	1.4	21 21 21 20
119 120 121 122	Fast salt boundary interpretation with optimal path picking. Geophysics, 2018, 83, O45-O53. Least-squares path-summation diffraction imaging using sparsity constraints. Geophysics, 2019, 84, S187-S200. Generalized velocity approximation. Geophysics, 2019, 84, C27-C40. Fractal heterogeneities in sonic logs and low-frequency scattering attenuation. Geophysics, 2009, 74, WA77-WA92. Azimuthally Anisotropic 3D Velocity Continuation. International Journal of Geophysics, 2011, 2011, 1-8. Stratigraphic coordinates: a coordinate system tailored to seismic interpretation. Geophysical	1.4 1.4 1.4	21 21 21 20 20

#	Article	IF	CITATIONS
127	Analytical path-summation imaging of seismic diffractions. Geophysics, 2017, 82, S51-S59.	1.4	19
128	Moveout analysis by timeâ€warping. , 2009, , .		19
129	Automatic channel detection using deep learning. , 2018, , .		19
130	The Wilson-Burg method of spectral factorization with application to helical filtering. Geophysical Prospecting, 2003, 51, 409-420.	1.0	18
131	Reproducible Computational Experiments using Scons. , 2007, , .		18
132	An eikonal-based formulation for traveltime perturbation with respect to the source location. Geophysics, 2010, 75, T175-T183.	1.4	18
133	Imaging incomplete data and simultaneous-source data using least-squares reverse-time migration with shaping regularization. , $2014, , .$		18
134	Streaming prediction-error filters., 2016,,.		18
135	Diffraction imaging of high-resolution 3D P-cable data from the Gulf of Mexico using azimuthal plane-wave destruction. First Break, 2017, 35, .	0.2	18
136	Nonstationary phase estimation: A tool for seismic interpretation?. The Leading Edge, 2010, 29, 1020-1026.	0.4	17
137	Automatic traveltime picking using instantaneous traveltime. Geophysics, 2013, 78, T53-T58.	1.4	17
138	Automated spectral recomposition with application in stratigraphic interpretation. Interpretation, 2013, 1, SA109-SA116.	0.5	17
139	Local skewness attribute as a seismic phase detector. Interpretation, 2014, 2, SA49-SA56.	0.5	17
140	Q-compensated full-waveform inversion using constant-Q wave equation. , 2016, , .		17
141	Postâ€stack velocity analysis by separation and imaging of seismic diffractions. , 2006, , .		17
142	A MATLAB code package for 2D/3D local slope estimation and structural filtering. Geophysics, 2022, 87, F1-F14.	1.4	17
143	Realâ€Time Earthquake Detection and Magnitude Estimation Using Vision Transformer. Journal of Geophysical Research: Solid Earth, 2022, 127, .	1.4	17
144	Image guided well log interpolation using predictive painting. , 2015, , .		16

#	Article	IF	CITATIONS
145	3D Microseismic Monitoring Using Machine Learning. Journal of Geophysical Research: Solid Earth, 2022, 127, .	1.4	16
146	3D velocity-independent elliptically anisotropic moveout correction. Geophysics, 2009, 74, WB129-WB136.	1.4	15
147	Enhancing seismic data resolution using the prestack blueing technique: An example from the Ketzin C O2 injection site, Germany. Geophysics, 2010, 75, V101-V110.	1.4	15
148	Comparison of seismic diffraction imaging techniques: Plane wave destruction versus apex destruction. , $2013, \ldots$		15
149	Viscoacoustic modeling and imaging using low-rank approximation. , 2014, , .		15
150	Matching and merging high-resolution and legacy seismic images. Geophysics, 2018, 83, V115-V122.	1.4	15
151	Overcoming numerical dispersion of finite-difference wave extrapolation using deep learning. , 2019, , .		15
152	Implicit 3â€D depth migration by wavefield extrapolation with helical boundary conditions. , 1998, , .		15
153	Relative geologic time estimation using a deep convolutional neural network. , 2019, , .		15
154	Timeâ€shift imaging condition for converted waves. , 2006, , .		14
155	Timeâ€domain seismic imaging using beams. , 2009, , .		14
156	Recent advances in time-domain seismic imaging. , 2014, , .		14
157	Seislet-based morphological component analysis using scale-dependent exponential shrinkage. Journal of Applied Geophysics, 2015, 118, 66-74.	0.9	14
158	Creating detailed subsurface models using predictive image-guided well-log interpolation. Interpretation, 2017, 5, T279-T285.	0.5	14
159	Plane-wave Sobel attribute for discontinuity enhancement in seismic images. Geophysics, 2017, 82, WB63-WB69.	1.4	14
160	Multicomponent seismic data registration for subsurface characterization in the shallow Gulf of Mexico. , 2003, , .		13
161	Stacking angle-domain common-image gathers for normalization of illumination. Geophysical Prospecting, 2011, 59, 244-255.	1.0	13
162	Theory of 3-D angle gathers in wave-equation seismic imaging. Journal of Petroleum Exploration and Production, 2011, 1, 11-16.	1,2	13

#	Article	IF	Citations
163	Kirchhoff migration using eikonal-based computation of traveltime source derivatives. Geophysics, 2013, 78, S211-S219.	1.4	13
164	Low-rank one-step wave extrapolation. , 2013, , .		13
165	Machine Learning for Fast and Reliable Source-Location Estimation in Earthquake Early Warning. IEEE Geoscience and Remote Sensing Letters, 2022, 19, 1-5.	1.4	13
166	Timeâ€frequency characterization of seismic data using local attributes. , 2009, , .		12
167	Diffraction velocity analysis by pathâ€integral seismic imaging. , 2011, , .		12
168	The basic components of residual migration in VTI media using anisotropy continuation. Journal of Petroleum Exploration and Production, 2011, 1, 17-22.	1.2	12
169	Mapping of moveout attributes using local slopes. Geophysical Prospecting, 2016, 64, 31-37.	1.0	12
170	Theory of interval traveltime parameter estimation in layered anisotropic media. Geophysics, 2016, 81, C253-C263.	1.4	12
171	The modified generalized moveout approximation: a new parameter selection. Geophysical Prospecting, 2017, 65, 687-695.	1.0	12
172	Seismic time-lapse image registration using amplitude-adjusted plane-wave destruction. , 2016, , .		12
173	Uncertainty estimation using Bayesian convolutional neural network for automatic channel detection., 2020,,.		12
174	Predictive painting of 3â€D seismic volumes. , 2008, , .		11
175	Fractures Detection Using Multiâ€Azimuth Diffractions Focusing Measure: Is it Feasible?. , 2010, , .		11
176	Shifted hyperbola moveout approximation revisited. Geophysical Prospecting, 2012, 60, 395-399.	1.0	11
177	Seismic data interpolation using plane-wave shaping regularization. , 2015, , .		11
178	Diffraction imaging using azimuthal plane-wave destruction., 2016,,.		11
179	Predictive painting across faults. Interpretation, 2018, 6, T449-T455.	0.5	11
180	Fast time-to-depth conversion and interval velocity estimation in the case of weak lateral variations. Geophysics, 2018, 83, S227-S235.	1.4	11

#	Article	IF	CITATIONS
181	The Slope-Attribute-Regularized High-Resolution Prestack Seismic Inversion. Surveys in Geophysics, 2021, 42, 625-671.	2.1	11
182	Nonstationary local signal-and-noise orthogonalization. Geophysics, 2021, 86, V409-V418.	1.4	11
183	Recursive integral time extrapolation of elastic waves using lowrank approximation. , 2016, , .		11
184	Separating primaries and multiples using hyperbolic Radon transform with deep learning., 2020,,.		11
185	Splitâ€step complex Padé—Fourier depth migration. , 2004, , .		10
186	An efficient workflow for path-integral imaging of seismic diffractions. , 2015, , .		10
187	Migration-based passive-source imaging for continuous data. , 2016, , .		10
188	Elastic wave-mode separation in heterogeneous anisotropic media using deep learning. , 2019, , .		10
189	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
190	Relative time seislet transform. Geophysics, 2020, 85, V223-V232.	1.4	10
191	Deep learning parameterization for geophysical inverse problems. , 2020, , .		10
192	Uncertainty and interpretability analysis of encoder-decoder architecture for channel detection. Geophysics, 2021, 86, O49-O58.	1.4	10
193	Timeâ€shift imaging condition. , 2005, , .		10
194	Seismic velocity estimation and time to depth conversion of timeâ€migrated images. , 2006, , .		9
195	Analysis and algorithms for a regularized cauchy problem arising from a non-linear elliptic PDE for seismic velocity estimation. Journal of Computational Physics, 2009, 228, 7388-7411.	1.9	9
196	Timeâ€lapse preâ€stack seismic data registration and inversion for CO ₂ sequestration study at Cranfield. Geophysical Prospecting, 2014, 62, 1028-1039.	1.0	9
197	Solving fractional Laplacian viscoelastic wave equations using domain decomposition. , 2018, , .		9
198	Least-squares diffraction imaging using shaping regularization by anisotropic smoothing. Geophysics, 2020, 85, S313-S325.	1.4	9

#	Article	IF	CITATIONS
199	5D dealiased seismic data interpolation using nonstationary prediction-error filter. Geophysics, 2021, 86, V419-V429.	1.4	9
200	Wave-equation time migration. , 2013, , .		9
201	Time-lapse seismic data inversion for estimating reservoir parameters using deep learning. Interpretation, 2022, 10, T167-T179.	0.5	9
202	Fastâ€marching eikonal solver in the tetragonal coordinates. , 1998, , .		8
203	Huygens wavefront tracing: A robust alternative to ray tracing. , 1998, , .		8
204	Fast Computation of Partial Fourier Transforms. Multiscale Modeling and Simulation, 2009, 8, 110-124.	0.6	8
205	Local similarity with the envelope as a seismic phase detector. , 2010, , .		8
206	Angle gathers in wave-equation imaging for transversely isotropic media. Geophysical Prospecting, 2011, 59, 422-431.	1.0	8
207	Two-point seismic ray tracing in layered media using bending. , 2014, , .		8
208	Reproducible Research as a Community Effort: Lessons from the Madagascar Project. Computing in Science and Engineering, 2015, 17, 20-26.	1.2	8
209	Recursive integral time extrapolation of elastic waves using low-rank symbol approximation. Geophysical Journal International, 2017, 211, 1478-1493.	1.0	8
210	Incremental correlation of multiple well logs following geologically optimal neighbors. Interpretation, 2018, 6, T713-T722.	0.5	8
211	Estimating the inverse Hessian for amplitude correction of migrated images using deep learning. , 2019, , .		8
212	Interactively tracking seismic geobodies with a deep-learning flood-filling network. Geophysics, 2021, 86, A1-A5.	1.4	8
213	A Compact Program for 3D Passive Seismic Source-Location Imaging. Seismological Research Letters, 2021, 92, 3187-3201.	0.8	8
214	A Fast Algorithm for Elastic Waveâ€Mode Separation Using Deep Learning With Generative Adversarial Networks (GANs). Journal of Geophysical Research: Solid Earth, 2021, 126, e2020JB021123.	1.4	8
215	True amplitude DMO, offset continuation and AVA/AVO for curved reflectors. , 1996, , .		8
216	Semisupervised salt segmentation using mean teacher. Interpretation, 2022, 10, SE21-SE29.	0.5	8

#	Article	IF	CITATIONS
217	High-Fidelity Permeability and Porosity Prediction Using Deep Learning With the Self-Attention Mechanism. IEEE Transactions on Neural Networks and Learning Systems, 2023, 34, 3429-3443.	7.2	8
218	Seismic data sampling and wavefield representation â€" Introduction. Geophysics, 2010, 75, WB1-WB2.	1.4	7
219	Least-squares reverse-time migration using one-step two-way wave extrapolation by non-stationary phase shift. , $2014, \ldots$		7
220	Structure-oriented plane-wave Sobel filter for edge detection in seismic images. , 2016, , .		7
221	Finding an optimal well-log correlation sequence using coherence-weighted graphs. , 2017, , .		7
222	Lowrank finiteâ€differences for wave extrapolation. , 2011, , .		7
223	3-D Forward Seismic Model of an Outcrop-Based Geocellular Model. , 2011, , 87-106.		7
224	Timeâ€lapse image registration using the local similarity attribute. , 2007, , .		6
225	Improving waveâ€equation fidelity of Gaussian beams by solving the complex eikonal equation. , 2011, , .		6
226	Fast algorithms for elastic-wave-mode separation and vector decomposition using low-rank approximation for anisotropic media. , 2013, , .		6
227	A fast algorithm for 3D azimuthally anisotropic velocity scan. Geophysical Prospecting, 2015, 63, 368-377.	1.0	6
228	Fast salt-boundary interpretation with optimal path picking. , 2017, , .		6
229	Unconventional Reservoir Characterization Using Azimuthal Seismic Diffraction Imaging. , 2017, , .		6
230	Patternâ€guided dip estimation with planeâ€wave destruction filters. Geophysical Prospecting, 2019, 67, 1798-1810.	1.0	6
231	Nonâ€hyperbolic common reflection surface. , 2009, , .		6
232	Multiple suppression in the $\langle i \rangle t-x-p \langle j \rangle$ domain. , 2012, , .		6
233	Random noise attenuation using local similarity. , 2014, , .		6
234	Improving resolution of NMO stack using shaping regularization. , 2015, , .		6

#	Article	IF	CITATIONS
235	Missing well-log data prediction using Bayesian approach in the relative-geologic time domain. , 2018, , .		6
236	Improving migration resolution by approximating the least-squares Hessian using nonstationary amplitude and frequency matching. , 2018, , .		6
237	The time and space formulation of azimuth moveout. , 1995, , .		5
238	Velocity continuation and the anatomy of prestack residual migration. , 1997, , .		5
239	Robust reflection tomography in the time domain. , 1998, , .		5
240	Velocityâ€independent timeâ€domain seismic imaging using local event slopes. , 2005, , .		5
241	Shaping regularization in geophysical estimation problems. , 2005, , .		5
242	Prestack spectral blueing: A tool for increasing seismic resolution., 2008,,.		5
243	Fourier finiteâ€difference wave propagation. , 2010, , .		5
244	Elastic wave-vector decomposition in orthorhombic media., 2015,,.		5
245	Source–receiver twoâ€way wave extrapolation for prestack explodingâ€reflector modelling and migration. Geophysical Prospecting, 2015, 63, 23-34.	1.0	5
246	Time-lapse image registration using the stratigraphic-coordinate system. , 2016, , .		5
247	Least-squares path-integral diffraction imaging using sparsity constraints. , 2016, , .		5
248	Differential azimuth moveout., 2003,,.		5
249	Angleâ€domain seismic imaging and the oriented wave equation. , 2003, , .		5
250	Angle gathers in waveâ€equation imaging for VTI media. , 2009, , .		5
251	Seismic modeling using the frozen Gaussian approximation. , 2013, , .		5
252	An elliptic approximations for qP velocities in orthorhombic media. , 2014, , .		5

#	Article	IF	CITATIONS
253	Enhancing seismic-diffraction images using semblance-weighted least-squares migration., 2017,,.		5
254	Time-lapse seismic data inversion for estimating reservoir parameters using deep learning. , 2020, , .		5
255	Fast Beam Migration Using Plane Wave Destructor (PWD) Beam Forming. , 2013, , .		5
256	Automatic fault interpretation using optimal surface voting. , 2018, , .		5
257	Inverse problem in seismic imaging. Proceedings in Applied Mathematics and Mechanics, 2007, 7, 1024803-1024804.	0.2	4
258	Split-step complex Padé-Fourier depth migration. Geophysical Journal International, 2007, 171, 1308-1313.	1.0	4
259	Sourceâ€receiver twoâ€way wave extrapolation for prestack explodingâ€reflector modeling and migration. , 2010, , .		4
260	Gaussian beam decomposition for seismic migration., 2011,,.		4
261	A robust approach to time-to-depth conversion in the presence of lateral-velocity variations. , 2013, , .		4
262	Iterative deblending of simultaneous-source seismic data using shaping regularization., 2013,,.		4
263	Diffraction imaging and velocity analysis using oriented velocity continuation. , 2014, , .		4
264	Microseismic source localization using time-domain path-integral migration., 2016,,.		4
265	Fast scattered data gridding. , 2016, , .		4
266	Incremental correlation of multiple well logs following geologically optimal neighbors. , 2017, , .		4
267	Reproducible research: Geophysics papers of the future — Introduction. Geophysics, 2017, 82, WBi-WBii.	1.4	4
268	Effects of lateral heterogeneity on time-domain processing parameters. Geophysical Journal International, 2019, 219, 1181-1201.	1.0	4
269	Probabilistic moveout analysis by time warping. Geophysics, 2020, 85, U1-U20.	1.4	4
270	Asymptotic pseudounitary stacking operators. Geophysics, 2003, 68, 1032-1042.	1.4	4

#	Article	IF	CITATIONS
271	3â€D velocityâ€independent elliptically anisotropic moveout correction. , 2008, , .		4
272	Trace interpolation beyond aliasing using regularized nonstationary autoregression., 2010,,.		4
273	Optimal migration aperture for conflicting dips. , 2012, , .		4
274	Missing Well Log Estimation by Multiple Well-log Correlation. , 2018, , .		4
275	Automatic traveltime picking using local timeâ€requency maps. , 2011, , .		3
276	Constrained simultaneous automatic picking for VVAZ analysis. , 2012, , .		3
277	Data-driven time-frequency analysis of seismic data using regularized nonstationary autoregression. , 2016, , .		3
278	Well-log interpolation guided by geologic distance. , 2017, , .		3
279	Effects of lateral heterogeneity on reflection traveltimes. , 2017, , .		3
280	Semiautomatic seismic well ties and log data interpolation. , 2017, , .		3
281	Waveâ€equation migration velocity analysis beyond the Born approximation. , 2002, , .		3
282	Modified an elliptic approximations for qP velocities in transversely isotropic media. , 2014, , .		3
283	3D generalized nonhyperboloidal moveout approximation. , 2015, , .		3
284	Predictive painting across faults., 2017,,.		3
285	A Probabilistic Approach to Seismic Diffraction Imaging. Lithosphere, 2021, 2021, .	0.6	3
286	Seismic data analysis with oneâ€dimensional seislet frame. , 2008, , .		2
287	Predictive coherency., 2013,,.		2
288	Transforming prestack seismic data by Gardner continuation. , 2014, , .		2

#	Article	IF	CITATIONS
289	Weighted least square based lowrank finite difference for seismic wave extrapolation., 2015,,.		2
290	Balancing local frequency content in seismic data using nonstationary smoothing. , 2017, , .		2
291	Diffraction-based migration velocity analysis using double-path summation. , 2017, , .		2
292	Increasing resolution of reverseâ€time migration using timeâ€shift gathers. Geophysical Prospecting, 2018, 66, 726-735.	1.0	2
293	A finite-element method for blind deconvolution with dynamic frequency wavelets. , 2018, , .		2
294	Boundary conditions for acoustic and elastic wave propagation using deep learning., 2021,,.		2
295	Channel facies and faults multisegmentation in seismic volumes. , 2021, , .		2
296	Continuation of a class of seismic processor s and associated †rays'. , 2006, , .		2
297	OCâ€seislet: Seislet transform construction with differential offset continuation. , 2009, , .		2
298	Stratigraphic coordinate system. , 2011, , .		2
299	Seismic wave extrapolation on a staggered grid using low-rank decomposition and low-rank finite differences. , 2013, , .		2
300	Seismic diffraction imaging, one migration dip at a time. , 2013, , .		2
301	A fast algorithm for 3D azimuthally anisotropic velocity scan. , 2013, , .		2
302	Computing volumetric-curvature attributes using predictive painting. , 2013, , .		2
303	High-resolution recursive stacking using plane-wave construction., 2016,,.		2
304	Least-squares diffraction imaging using shaping regularization by anisotropic smoothing. , 2018, , .		2
305	Local seismic attributes. , 2006, , .		2
306	Random Noise Attenuation Using Local Signal and Noise Orthogonalization., 2015,,.		2

#	Article	IF	Citations
307	Passive seismic signal denoising using convolutional neural network., 2020,,.		2
308	Robust local slope estimation by deep learning. Geophysical Prospecting, 0, , .	1.0	2
309	Highâ€resolution and robust microseismic grouped imaging and grouping strategy analysis. Geophysical Prospecting, 2022, 70, 980-1002.	1.0	2
310	Joint deblending and source time inversion. Geophysics, 2023, 88, WA27-WA35.	1.4	2
311	Nonâ€inear estimation of vertical delays. , 2005, , .		1
312	High-order kernels for Riemannian wavefield extrapolation. Geophysical Prospecting, 2007, 56, 071030085652001-???.	1.0	1
313	A Gaussian beam analysis of the Radon transform. , 2008, , .		1
314	Structureâ€enhancing nonlinear filtering of seismic images. , 2009, , .		1
315	Generalized nonhyperbolic moveout approximation., 2009,,.		1
316	Azimuthally anisotropic 3D velocity continuation. , 2010, , .		1
317	A fast butterfly algorithm for the hyperbolic Radon transform. , 2012, , .		1
318	Phase-space computation of multi-arrival traveltimes: Part II $\hat{a} \in ``Implementation and application to angle-domain imaging.', 2012, , .$		1
319	Seismic data decomposition into spectral components using regularized nonstationary autoregression. , 2012, , .		1
320	Taking signal and noise to new dimensions — Introduction. Geophysics, 2015, 80, WDi-WDii.	1.4	1
321	A comparison of anisotropic parameterizations for Ti and orthorhombic media and their sensitivity with respect to qP velocities. , 2016, , .		1
322	Introduction to special section: Computer-assisted seismic interpretation methods. Interpretation, 2017, 5, SJi-SJii.	0.5	1
323	Fast time-to-depth conversion and interval velocity estimation with weak lateral variations. , 2017, , .		1
324	Estimation of timeshifts between time-lapse seismic images using spectral decomposition. , 2017, , .		1

#	Article	IF	CITATIONS
325	Subsurface Exploration: Recent Advances in Geo-Signal Processing, Interpretation, and Learning [From the Guest Editors]. IEEE Signal Processing Magazine, 2018, 35, 16-18.	4.6	1
326	Least-squares seismic horizons with local slopes and multigrid correlations. , 2018, , .		1
327	Building realistic structure models to train convolutional neural networks for seismic structural interpretation., 2019,,.		1
328	Wave-equation time migration. Geophysics, 2021, 86, S103-S111.	1.4	1
329	A continuation approach for avoiding local minima in seismic velocity picking. , 2021, , .		1
330	Model preconditioning by planeâ€wave construction in geophysical estimation problems. , 2005, , .		1
331	A stable implementation of the prestack exploding reflector modeling and migration. , 2011, , .		1
332	A variational method for picking velocity surfaces from semblance scans. , 2020, , .		1
333	Visco-acoustic Full Waveform Inversion with Q-compensation. , 2017, , .		1
334	Directional analysis of the waveâ€equation imaging condition. , 2007, , .		1
335	Stacking angleâ€domain commonâ€image gathers for normalization of illumination. , 2009, , .		1
336	VTI interval velocities by predictive painting in τ― <i>p</i>) domain., 2010,,.		1
337	Time-lapse seismic registration and inversion for CO2 sequestration study at Cranfield: Part II: Pre-stack analysis., 2013,,.		1
338	Double Sparsity Dictionary for Seismic Noise Attenuation. , 2015, , .		1
339	Path-integral seismic diffraction imaging with probability weights., 2019,,.		1
340	Simultaneous Reconstruction and Denoising of Extremely Sparse 5-D Seismic Data by a Simple and Effective Method. IEEE Transactions on Geoscience and Remote Sensing, 2022, 60, 1-12.	2.7	1
341	A variational approach for picking optimal surfaces from semblance-like panels. Geophysics, 2022, 87, U93-U108.	1.4	1
342	Seismic reflection data interpolation with differential offset and shot continuation., 2001,,.		0

#	Article	IF	CITATIONS
343	Interpreting Multicomponent Seismic Data In The Gulf Of Mexico For Shallow Sedimentary Properties: Methodology And Case History., 2003,,.		0
344	Reply to the discussion. Geophysics, 2006, 71, X3-X4.	1.4	0
345	Interpolation and extrapolation of seismic data using Newton's Method. AIP Conference Proceedings, 2006, , .	0.3	0
346	20. Signal Processing. , 2010, , 453-493.		0
347	Seismic Imaging. International Journal of Geophysics, 2011, 2011, 1-2.	0.4	O
348	Phase-space computation of multi-arrival traveltimes, Part I: Theory and concepts. , 2012, , .		0
349	Fast Beam Migration using Plane Wave Destructor (PWD) Beam Forming. , 2013, , .		O
350	Frequency-domain reverse-time migration with a sparse-frequency sampling. , 2014, , .		0
351	Uncertainty estimation for full waveform inversion with a prior information from depth migration. , 2015, , .		0
352	Introduction to special section: Thin beds. Interpretation, 2015, 3, SSi-SSii.	0.5	0
353	Introduction to special section: Diffraction imaging. Interpretation, 2015, 3, SFi-SFii.	0.5	O
354	5. Diffraction Imaging. , 2016, , 655-800.		0
355	1. Overview. , 2016, , 1-62.		O
356	Applications of adaptive-matching filter in full-waveform inversion. , 2016, , .		0
357	Oriented anisotropy continuation using shifted hyperbola traveltime approximation. , 2017, , .		0
358	Nonstretching NMO correction using deep learning. , 2021, , .		0
359	Streaming seismic attributes. , 2021, , .		0
360	Applications of nonstationary regression. , 2007, , .		0

#	Article	IF	CITATIONS
361	Adaptive multiple subtraction using regularized nonstationary regression. , 2008, , .		O
362	Spectral recomposition using separable nonlinear least squares. , 2012, , .		0
363	Prestack first-break traveltime tomography using the double-square-root eikonal equation. , 2012, , .		O
364	Exploring imaging capabilities of the extended prestack wavefield. , 2013, , .		0
365	Separation of primaries and multiples using VD-seislet frame. , 2014, , .		O
366	Median balancing: A linearly convergent algorithm for time gain power correction. , 2015, , .		0
367	RTM interpolation using time-shift gathers. , 2015, , .		O
368	Generalized Moveout Approximation Revisited. Alternative Parameter Selection., 2016,,.		0
369	Matching and merging high-resolution and legacy seismic images. , 2017, , .		O
370	Improving spatial resolution of seismic stack using inversion to zero-offset with shaping regularization. , 2018, , .		0
371	Using well-seismic mistie to update the velocity model. , 2018, , .		O
372	Prestack phase corrections using local seismic attributes. , 2019, , .		0
373	Seismic image interpolation from irregular locations to a 3D grid using dynamic time warping. , $2019,$		O
374	Special section introduction: Automated approaches to interpretation. Interpretation, 0, , 1-2.	0.5	0