Dirk Gajewski

List of Publications by Year
in descending order

136	3,392	136740	161609
papers	citations	32 h-index	54 g-index

139	139	139	1567
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Reverse modelling for seismic event characterization. Geophysical Journal International, 2005, 163, 276-284.	1.0	213
2	Common-reflection-surface-based workflow for diffraction imaging. Geophysics, 2011, 76, S187-S195.	1.4	179
3	Computation of high-frequency seismic wavefields in 3-D laterally inhomogeneous anisotropic media. Geophysical Journal International, 1987, 91, 383-411.	1.0	140
4	Vertical seismic profile synthetics by dynamic ray tracing in laterally varying layered anisotropic structures. Journal of Geophysical Research, 1990, 95, 11301-11315.	3.3	119
5	An interpretation of wideâ€angle compressional and shear wave data in southwest Germany: Poisson's ratio and petrological implications. Journal of Geophysical Research, 1988, 93, 12081-12106.	3.3	111
6	Polarization, phase velocity, and NMO velocity of qP-waves in arbitrary weakly anisotropic media. Geophysics, 1998, 63, 1754-1766.	1.4	107
7	Recent Advances and Challenges of Waveformâ€Based Seismic Location Methods at Multiple Scales. Reviews of Geophysics, 2020, 58, e2019RG000667.	9.0	105
8	The Levantine Basinâ€"crustal structure and origin. Tectonophysics, 2006, 418, 167-188.	0.9	102
9	Prestack seismic data enhancement with partial common-reflection-surface (CRS) stack. Geophysics, 2009, 74, V49-V58.	1.4	102
10	The structural evolution of the Messinian evaporites in the Levantine Basin. Marine Geology, 2006, 230, 249-273.	0.9	96
11	Large-scale variation in lithospheric structure along and across the Kenya rift. Nature, 1991, 354, 223-227.	13.7	91
12	Crustal evolution of the Rhinegraben area. 1. Exploring the lower crust in the Rhinegraben rift by unified geophysical experiments. Tectonophysics, 1987, 141, 261-275.	0.9	80
13	Salt tectonics off northern Israel. Marine and Petroleum Geology, 2005, 22, 597-611.	1.5	80
14	Crustal-scale pop-up structure in cratonic lithosphere: DOBRE deep seismic reflection study of the Donbas fold belt, Ukraine. Geology, 2003, 31, 733.	2.0	78
15	Seismic refraction investigation of the Black Forest. Tectonophysics, 1987, 142, 27-48.	0.9	76
16	Crustal structure beneath the Kenya Rift from axial profile data. Tectonophysics, 1994, 236, 179-200.	0.9	64
17	A three-dimensional crustal model of southwest Germany derived from seismic refraction data. Tectonophysics, 1987, 142, 49-70.	0.9	63
18	Vector wavefields for weakly attenuating anisotropic media by the ray method. Geophysics, 1992, 57, 27-38.	1.4	57

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19	Common-reflection-surface-based prestack diffraction separation and imaging. Geophysics, 2018, 83, S47-S55.	1.4	55
20	Curvatures and inhomogeneities: An improved common-reflection-surface approach. Geophysics, 2014, 79, S231-S240.	1.4	53
21	Accessing the diffracted wavefield by coherent subtraction. Geophysical Journal International, 2017, 211, 45-49.	1.0	53
22	Utilizing diffractions in wavefront tomography. Geophysics, 2017, 82, R65-R73.	1.4	50
23	Crustal structure of southern Germany from seismic refraction data. Tectonophysics, 1990, 176, 59-86.	0.9	47
24	Basin evolution of the northern part of the Northeast German Basin â€" Insights from a 3D structural model. Tectonophysics, 2007, 437, 1-16.	0.9	47
25	Radiation from point sources in general anisotropic media. Geophysical Journal International, 1993, 113, 299-317.	1.0	42
26	Seismic study of pull-apart-induced sedimentation and deformation in the Northern Gulf of Aqaba (Elat). Tectonophysics, 2005, 396, 59-79.	0.9	42
27	Tube wave modeling by the finite-difference method with varying grid spacing. Pure and Applied Geophysics, 1996, 148, 77-93.	0.8	41
28	Efficient finite-difference modelling of seismic waves using locally adjustable time steps. Geophysical Prospecting, 1998, 46, 603-616.	1.0	40
29	Comparison of six different methods for calculating traveltimes. Geophysical Prospecting, 1999, 47, 269-297.	1.0	40
30	Variation of the present-day stress field within the North German Basinâ€"insights from thin shell FE modeling based on residual GPS velocities. Tectonophysics, 2005, 397, 55-72.	0.9	40
31	A new constraint on the composition of the topmost continental mantle-anomalously different depth increases ofPandSvelocity. Geophysical Journal International, 1990, 103, 497-507.	1.0	36
32	Anisotropic reflection coefficients for a weak-contrast interface. Geophysical Journal International, 1998, 132, 159-166.	1.0	33
33	Wave front construction in smooth media for prestack depth migration. Pure and Applied Geophysics, 1996, 148, 481-502.	0.8	29
34	Passive seismic source localization via common-reflection-surface attributes. Studia Geophysica Et Geodaetica, 2016, 60, 531-546.	0.3	29
35	Imaging of complex basin structures with the common reflection surface (CRS) stack method. Geophysical Journal International, 2004, 157, 1206-1216.	1.0	28
36	Second-order interpolation of traveltimes. Geophysical Prospecting, 2002, 50, 73-83.	1.0	27

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37	Shearâ€wave velocity and Poisson's ratio structure of the upper lithosphere in southwest Germany. Geophysical Research Letters, 1987, 14, 231-234.	1.5	26
38	Reflection coefficients for weak anisotropic media. Geophysical Journal International, 1997, 129, 389-398.	1.0	26
39	Determination of wavefront attributes by differential evolution in the presence of conflicting dips. Geophysics, 2017, 82, V229-V239.	1.4	25
40	5-D interpolation with wave-front attributes. Geophysical Journal International, 2017, 211, 897-919.	1.0	25
41	Some remarks on the structure and geodynamics of the Kenya Rift. Tectonophysics, 1992, 213, 257-268.	0.9	24
42	Traveltime computation by perturbation with FD-eikonal solvers in isotropic and weakly anisotropic media. Geophysics, 1998, 63, 1066-1078.	1.4	22
43	Seismic velocities from the Yaquina forearc basin off Peru: evidence for free gas within the gas hydrate stability zone. International Journal of Earth Sciences, 2005, 94, 420-432.	0.9	22
44	Conrad Deep, Northern Red Sea: Development of an early stage ocean deep within the axial depression. Tectonophysics, 2005, 411, 19-40.	0.9	22
45	Structure and evolution of the Northeastern German Basin and its transition onto the Baltic Shield. Marine and Petroleum Geology, 2010, 27, 923-938.	1.5	22
46	A systematic analysis of correlation-based seismic location methods. Geophysical Journal International, 2018, 212, 659-678.	1.0	22
47	Enhancement of prestack diffraction data and attributes using a traveltime decomposition approach. Studia Geophysica Et Geodaetica, 2016, 60, 471-486.	0.3	21
48	The Mesozoicâ€“Cenozoic structural framework of the Bay of Kiel area, western Baltic Sea. International Journal of Earth Sciences, 2005, 94, 1070-1082.	0.9	20
49	Unsupervised event identification and tagging for diffraction focusing. Geophysical Journal International, 2019, 217, 2165-2176.	1.0	20
50	Determination of geometrical spreading from traveltimes. Journal of Applied Geophysics, 2003, 54, 391-400.	0.9	19
51	Comparison of prestack stereotomography and NIP wave tomography for velocity model building: Instances from the Messinian evaporites. Geophysics, 2008, 73, VE291-VE302.	1.4	18
52	A competitive comparison of multiparameter stacking operators. Geophysics, 2017, 82, V275-V283.	1.4	16
53	Prestack time migration by common-migrated-reflector-element stacking. Geophysics, 2012, 77, S73-S82.	1.4	15
54	Application of the 3D commonâ€reflectionâ€surface stack workflow in a crystalline rock environment. Geophysical Prospecting, 2015, 63, 990-998.	1.0	15

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55	Waveform-based microseismic location using stochastic optimization algorithms: A parameter tuning workflow. Computers and Geosciences, 2019, 124, 115-127.	2.0	15
56	A multiple suppression method via CRS attributes. , 2008, , .		14
57	A generalized view on normal moveout. Geophysics, 2017, 82, V335-V349.	1.4	14
58	Source localization and joint velocity model building using wavefront attributes. Geophysical Journal International, 2019, 219, 995-1007.	1.0	14
59	Traveltime computation by wavefront-orientated ray tracing. Geophysical Prospecting, 2005, 53, 23-36.	1.0	13
60	Reprocessing of deep seismic reflection data from the North German Basin with the Common Reflection Surface stack. Tectonophysics, 2009, 472, 273-283.	0.9	13
61	Revisiting the structural setting of the Glueckstadt Graben salt stock family, North German Basin. Tectonophysics, 2009, 470, 162-172.	0.9	13
62	Imageâ€ray Tomography. Geophysical Prospecting, 2014, 62, 413-426.	1.0	13
63	Common reflection surface (CRS) based pre-stack diffraction separation. , 2014, , .		13
64	Traveltime based true amplitude migration of PS converted wave. , 2001, , .		13
65	Quasi-isotropic approximation of ray theory for anisotropic media. Geophysical Journal International, 1998, 132, 643-653.	1.0	12
66	Dynamics of sedimentary basins: the example of the Central European Basin system. International Journal of Earth Sciences, 2005, 94, 779-781.	0.9	12
67	Diffraction separation based on the projected first Fresnel zone. Journal of Geophysics and Engineering, 2018, 15, 2507-2515.	0.7	12
68	From time to depth with CRS attributes. Geophysics, 2011, 76, S151-S155.	1.4	11
69	Localization of seismic events in 3D media by diffraction stacking. , 2010, , .		11
70	Amplitude Preserving Kirchhoff Migration: A Traveltime Based Strategy. Studia Geophysica Et Geodaetica, 2002, 46, 193-211.	0.3	10
71	Using seismic diffractions for assessment of tectonic overprint and fault interpretation. Geophysics, 2019, 84, IM1-IM9.	1.4	10
72	Ray synthetic seismograms for a 3-D anisotropic lithospheric structure. Physics of the Earth and Planetary Interiors, 1988, 51, 1-23.	0.7	9

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73	Deep seismic sounding in the Turkana depression, northern Kenya Rift. Tectonophysics, 1994, 236, 165-178.	0.9	9
74	Traveltime-based true-amplitude migration. Geophysics, 2006, 71, S251-S259.	1.4	9
75	Influence of models on seismic-event localization. Geophysics, 2009, 74, WB55-WB61.	1.4	9
76	Combined seismic reflection and refraction profiling in southwest Germany - detailed velocity mapping by the refraction survey. Geophysical Journal International, 1987, 89, 333-338.	1.0	8
77	qP wave phase velocities in weakly anisotropic mediaâ€perturbation approach. , 1996, , .		8
78	Traveltime computation for 3D anisotropic media by a finite-difference perturbation method. Geophysical Prospecting, 2003, 51, 431-441.	1.0	8
79	Diffraction traveltime approximation for general anisotropic media. Geophysics, 2013, 78, WC15-WC23.	1.4	8
80	True-amplitude Kirchhoff depth migration in anisotropic media: The traveltime-based approach. Geophysics, 2013, 78, WC33-WC39.	1.4	8
81	New insights into the crustal structure of the North German Basin from reprocessing of seismic reflection data using the Common Reflection Surface stack. International Journal of Earth Sciences, 2008, 97, 887-898.	0.9	7
82	Application of Snellâ€™s law in weakly anisotropic media. Geophysics, 2009, 74, WB147-WB152.	1.4	7
83	Interpolation and regularization with the 3D CRS operator. , 2016, , .		7
84	The two faces of NMO. The Leading Edge, 2017, 36, 512-517.	0.4	7
85	3D wavefront attribute determination and conflicting dip processing. Geophysics, 2018, 83, V325-V343.	1.4	7
86	Categorizing and correlating diffractivity attributes with seismic-reflection attributes using autoencoder networks. Geophysics, 2020, 85, O59-O70.	1.4	7
87	Common-reflection-surface stack improvement by differential evolution and conflicting dip processing. , 2015, , .		7
88	Trueâ€amplitude commonâ€shot migration revisited. Geophysics, 1997, 62, 1250-1259.	1.4	6
89	Reference ellipsoids for anisotropic media. Geophysical Prospecting, 2001, 49, 321-334.	1.0	6
90	Simultaneous estimation of the 3D CRS attributes by an evolutionary-based Nelderâ€“Mead algorithm. , 2016, , .		6

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91	Wavefield decomposition for diffraction separation with convolutional neural networks. , 2021, , .		5
92	Wavefront attributes in anisotropic media. Geophysical Journal International, 2018, 214, 430-443.	1.0	4
93	On the role of diffractions in velocity model building: a full-waveform inversion example. Studia Geophysica Et Geodaetica, 2019, 63, 538-553.	0.3	4
94	Velocity-estimation improvements and migration/demigration using the common-reflection surface with continuing deconvolution in the time domain. Geophysics, 2019, 84, S229-S238.	1.4	4
95	True Amplitude Migration Weights from Travel Times. Pure and Applied Geophysics, 2002, 159, 1583-1599.	0.8	3
96	Seismic data enhancement with common reflection surface (CRS) stack method. , 2008, , .		3
97	Prestack diffraction enhancement using a traveltime decomposition approach. , 2015, , .		3
98	On the computation of the trueâ€amplitude weighting functions. Geophysics, 1998, 63, 1648-1651.	1.4	2
99	An automatic time imaging using Common Scatter Point gathers. , 2010, , .		2
100	3-D seismic imaging in crystalline rock environments: An approach based on diffraction focusing. Journal of Applied Geophysics, 2019, 165, 49-59.	0.9	2
101	Compressional and Shear-Wave Velocity Models of the Schwarzwald Derived from Seismic Refraction Data. Exploration of the Deep Continental Crust, 1989, , 363-383.	0.1	2
102	Determination of sectorially bestâ€fitting isotropic background media. , 2004, , .		2
103	Velocity model building by geometrical spreading focusing. , 2018, , .		2
104	Identification and focusing of edge diffractions with wavefront attributes. , 2019, , .		2
105	Velocity inversion and scatterer detection with 3D P-Cable data. , 2020, , .		2
106	Improving focusing and estimation of excitation time for passive seismic events: Sparse and limited-aperture data examples. , 2019, , .		2
107	Application of sectorially bestâ€fitting isotropic background media. , 2004, , .		1
108	Second-order interpolation of later-arrival traveltimes. Geophysical Prospecting, 2006, 54, 167-176.	1.0	1

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109	Seismic anisotropy in oil and gas exploration and development â€" Introduction. Geophysics, 2013, 78, WC1-WC2.	1.4	1
110	3-D Time migration velocity model building using CRS-based pre-stack diffraction separation. , 2015, , .		1
111	Parameter tuning of differential evolution algorithm for microseismic location. , 2018, , .		1
112	Reliability of data-driven wavefront attributes in laterally heterogeneous media. Geophysics, 2019, 84, O49-O62.	1.4	1
113	On-the-Fly Full Hessian Kernel Calculations Based upon Seismic-Wave Simulations. Seismological Research Letters, 0, , .	0.8	1
114	3â€Ð multiâ€valued traveltime computation using a hybrid method. , 2000, , .		1
115	Diffraction imaging based on Commonâ€Reflectionâ€Surface attributes. , 2011, , .		1
116	Simultaneous model building and source localization: A 3D synthetic case study. , 2018, , .		1
117	Determining the optimum migration aperture from traveltimes. , 2001, , .		1
118	True Amplitude Migration Weights from Travel Times. , 2002, , 1583-1599.		1
119	Normal moveout velocities in 3D arbitrary anisotropic media. , 1997, , .		1
120	Improving the resolution of wavefront tomography by utilizing diffractions. , 2016, , .		1
121	Wavefront tomography with diffraction-only 3D P-cable data. , 2018, , .		1
122	Seismic source location with time-reversal and maximum-amplitude path for sparse and small-aperture acquisitions. Geophysics, 2022, 87, KS113-KS123.	1.4	1
123	An Attempt to Integrate Reflection Seismics and Balanced Profiles. Pure and Applied Geophysics, 1999, 156, 207-232.	0.8	0
124	3â€Ð wavefrontâ€oriented ray tracing: Estimation of traveltimes within cells. , 2002, , .		0
125	Sedimentary basin evolution: subsidence, salt dynamics, fluid flow and deformation. International Journal of Earth Sciences, 2008, 97, 883-886.	0.9	0
126	Data-driven time migration using a multiparameter approach. , 2015, , .		0

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127	Conflicting dips and hard-rock environments: A CRS land data case study. , 2016, , .		0
128	Wavefront tomography by dynamic focusing. , 2017, , .		0
129	Traveltime interpolation for Kirchhoff migration in anisotropic media. , 2002, , .		0
130	Determining geometrical spreading from traveltimes in anisotropic media. , 2002, , .		0
131	Trueâ€amplitude migration â€" the traveltimeâ€based strategy. , 2004, , .		0
132	A workflow for the processing of reflection seismic data with CRS attributes. , 2009, , .		0
133	Pâ€wave AVAZ for inclined parallel fractures. , 1998, , .		0
134	A zero-offset picking approach for pre-stack multiple attenuation. , 2015, , .		0
135	An unsupervised strategy for the global tagging of individual diffractions. , 2018, , .		0
136	Wavefront-attribute estimation for 3D laterally heterogeneous media. , 2018, , .		0