

Vaclav Vavrycuk

List of Publications by Year in descending order

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117
papers

4,231
citations

117625

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124
all docs

124
docs citations

124
times ranked

2042
citing authors

#	ARTICLE	IF	CITATIONS
1	Considering light-matter interactions in Friedmann equations based on the conformal FLRW metric. <i>Journal of Advanced Research</i> , 2023, 46, 49-59.	9.5	1
2	Considering light-matter interactions in the Friedmann equations. <i>Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences</i> , 2022, 478, .	2.1	3
3	Moment tensor catalogue of earthquakes in West Bohemia from 2008 to 2018. <i>Earth System Science Data</i> , 2022, 14, 2179-2194.	9.9	1
4	Mapping Stress and Fluids on Faults by Nonshear Earthquakes. <i>Journal of Geophysical Research: Solid Earth</i> , 2021, 126, e2020JB021287.	3.4	12
5	Accurate moment tensor inversion of acoustic emissions and its application to Brazilian splitting test. <i>International Journal of Rock Mechanics and Minings Sciences</i> , 2021, 141, 104707.	5.8	15
6	Non-double-couple earthquakes in 2017 swarm in Reykjanes Peninsula, SW Iceland: Sensitive indicator of volcano-tectonic movements at slow-spreading rift. <i>Earth and Planetary Science Letters</i> , 2021, 563, 116875.	4.4	11
7	Contact of the Samoan Plume with the Tonga Subduction from Intermediate and Deep-Focus Earthquakes. <i>Surveys in Geophysics</i> , 2021, 42, 1347-1375.	4.6	0
8	Non-Double-Couple Moment Tensors of Earthquakes Calculated Using Empirical Green's Functions. <i>Seismological Research Letters</i> , 2020, 91, 390-398.	1.9	6
9	The failure of testing for cosmic opacity via the distance-duality relation. <i>Monthly Notices of the Royal Astronomical Society</i> , 2020, 497, 378-388.	4.4	9
10	Optimum size and density of surface grid arrays for retrieving accurate shear-tensile fracturing of microearthquakes. <i>Geophysical Prospecting</i> , 2020, 68, 2347-2360.	1.9	4
11	Traveltime Calculations for qP, qSV, and qSH Waves in Two-Dimensional Tilted Transversely Isotropic Media. <i>Journal of Geophysical Research: Solid Earth</i> , 2020, 125, e2019JB018868.	3.4	9
12	Universe opacity and Type Ia supernova dimming. <i>Monthly Notices of the Royal Astronomical Society: Letters</i> , 2019, 489, L63-L68.	3.3	12
13	Frequency-Dependent Moment Tensors of Induced Microearthquakes. <i>Geophysical Research Letters</i> , 2019, 46, 6406-6414.	4.0	9
14	Stress Inversion of Regional Seismicity in the Sea of Marmara Region, Turkey. <i>Pure and Applied Geophysics</i> , 2019, 176, 1269-1291.	1.9	6
15	Tectonic stress regime in the 2003-2004 and 2012-2015 earthquake swarms in the Ubaye Valley, French Alps. <i>Pure and Applied Geophysics</i> , 2018, 175, 1997-2008.	1.9	19
16	Imaging the Mudurnu Segment of the North Anatolian Fault Zone From Waveforms of Small Earthquakes. <i>Journal of Geophysical Research: Solid Earth</i> , 2018, 123, 493-512.	3.4	2
17	Detection of Stress Anomaly Produced by Interaction of Compressive Fault Steps in the West Bohemia Swarm Region, Czech Republic. <i>Tectonics</i> , 2018, 37, 4212-4225.	2.8	7
18	Moment Tensors of Induced Microearthquakes in The Geysers Geothermal Reservoir From Broadband Seismic Recordings: Implications for Faulting Regime, Stress Tensor, and Fluid Pressure. <i>Journal of Geophysical Research: Solid Earth</i> , 2018, 123, 8748-8766.	3.4	31

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19	Universe opacity and CMB. Monthly Notices of the Royal Astronomical Society, 2018, 478, 283-301.	4.4	12
20	Seismic Moment Tensors in Anisotropic Media: A Review. Springer Natural Hazards, 2018, , 29-54.	0.3	6
21	Fair ranking of researchers and research teams. PLoS ONE, 2018, 13, e0195509.	2.5	53
22	Seismological evidence of fault weakening due to erosion by fluids from observations of intraplate earthquake swarms. Journal of Geophysical Research: Solid Earth, 2017, 122, 3701-3718.	3.4	35
23	Effect of pressure on 3D distribution of P-wave velocity and attenuation in antigorite serpentinite. Geophysics, 2017, 82, WA33-WA43.	2.6	11
24	Universe opacity and EBL. Monthly Notices of the Royal Astronomical Society, 2017, 465, 1532-1542.	4.4	8
25	Missing dust signature in the cosmic microwave background. Monthly Notices of the Royal Astronomical Society: Letters, 2017, 470, L44-L48.	3.3	5
26	Moment Tensor Inversion Based on the Principal Component Analysis of Waveforms: Method and Application to Microearthquakes in West Bohemia, Czech Republic. Seismological Research Letters, 2017, 88, 1303-1315.	1.9	37
27	Active Magmatic Underplating in Western Eger Rift, Central Europe. Tectonics, 2017, 36, 2846-2862.	2.8	47
28	Single-well moment tensor inversion of tensile microseismic events. , 2017, , .		1
29	Anisotropic attenuation in rocks: Theory, modelling and lab measurements. Geophysical Journal International, 2016, , ggw476.	2.4	1
30	Shallow crustal discontinuities inferred from waveforms of microearthquakes: Method and application to KTB Drill Site and West Bohemia Swarm Area. Journal of Geophysical Research: Solid Earth, 2016, 121, 881-902.	3.4	10
31	Single-well moment tensor inversion of tensile microseismic events. Geophysics, 2016, 81, KS219-KS229.	2.6	14
32	Sensitivity of stress inversion of focal mechanisms to pore pressure changes. Geophysical Research Letters, 2016, 43, 8441-8450.	4.0	29
33	Impact of galactic and intergalactic dust on the stellar EBL. Astrophysics and Space Science, 2016, 361, 1.	1.4	2
34	Seismic moment tensors of acoustic emissions recorded during laboratory rock deformation experiments: sensitivity to attenuation and anisotropy. Geophysical Journal International, 2016, 205, 38-50.	2.4	35
35	Inversion for the Composite Moment Tensor. Bulletin of the Seismological Society of America, 2015, 105, 3024-3035.	2.3	19
36	Moment tensor decompositions revisited. Journal of Seismology, 2015, 19, 231-252.	1.3	147

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37	Determination of parameters of viscoelastic anisotropy from ray velocity and ray attenuation: Theory and numerical modeling. <i>Geophysics</i> , 2015, 80, C59-C71.	2.6	6
38	Earthquake Mechanisms and Stress Field. , 2015, , 728-746.		16
39	Earthquake Mechanisms and Stress Field. , 2015, , 1-21.		18
40	Moment Tensors: Decomposition and Visualization. , 2015, , 1546-1559.		2
41	Velocity structure and the role of fluids in the West Bohemia Seismic Zone. <i>Solid Earth</i> , 2014, 5, 863-872.	2.8	20
42	Iterative joint inversion for stress and fault orientations from focal mechanisms. <i>Geophysical Journal International</i> , 2014, 199, 69-77.	2.4	337
43	Determination of elastic anisotropy of rocks from P- and S-wave velocities: numerical modelling and lab measurements. <i>Geophysical Journal International</i> , 2014, 199, 1682-1697.	2.4	31
44	Intra-continental earthquake swarms in West-Bohemia and Vogtland: A review. <i>Tectonophysics</i> , 2014, 611, 1-27.	2.2	177
45	Resolution of non-double-couple components in the seismic moment tensor using regional networks: a synthetic case study. <i>Geophysical Journal International</i> , 2014, 196, 1869-1877.	2.4	53
46	Resolution of non-double-couple components in the seismic moment tensor using regional networks: application to aftershocks of the 1999 Mw 7.4 Izmit earthquake. <i>Geophysical Journal International</i> , 2014, 196, 1878-1888.	2.4	45
47	Experimental investigation of acoustic emissions and their moment tensors in rock during failure. <i>International Journal of Rock Mechanics and Minings Sciences</i> , 2014, 70, 286-295.	5.8	122
48	Nonisotropic radiation of the 2013 North Korean nuclear explosion. <i>Geophysical Research Letters</i> , 2014, 41, 7048-7056.	4.0	28
49	Keynote Speaker: Determination of Source Parameters of Induced Earthquakes. , 2014, , .		0
50	Accuracy of the master-event and double-difference locations: synthetic tests and application to seismicity in West Bohemia, Czech Republic. <i>Journal of Seismology</i> , 2013, 17, 841-859.	1.3	36
51	Comment on the Seismic Method Depth-Recursive Tomography on Grid (DRTG) Developed by Miroslav Novotný and Recently Published in Three Papers in <i>Surveys in Geophysics</i> . <i>Surveys in Geophysics</i> , 2013, 34, 521-529.	4.6	1
52	Network sensor calibration for retrieving accurate moment tensors of acoustic emissions. <i>International Journal of Rock Mechanics and Minings Sciences</i> , 2013, 62, 59-67.	5.8	35
53	New constraints on the 3D shear wave velocity structure of the upper mantle underneath Southern Scandinavia revealed from non-linear tomography. <i>Tectonophysics</i> , 2013, 602, 38-54.	2.2	22
54	High-resolution fault image from accurate locations and focal mechanisms of the 2008 swarm earthquakes in West Bohemia, Czech Republic. <i>Tectonophysics</i> , 2013, 590, 189-195.	2.2	82

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55	Inversion for weak triclinic anisotropy from acoustic axes. <i>Wave Motion</i> , 2013, 50, 1271-1282.	2.0	8
56	Determination of full moment tensors of microseismic events in a very heterogeneous mining environment. <i>Tectonophysics</i> , 2013, 589, 33-43.	2.2	33
57	Is the seismic moment tensor ambiguous at a material interface?. <i>Geophysical Journal International</i> , 2013, 194, 395-400.	2.4	14
58	Moho depth determination from waveforms of microearthquakes in the West Bohemia/Vogtland swarm area. <i>Journal of Geophysical Research: Solid Earth</i> , 2013, , n/a-n/a.	3.4	0
59	Moho depth determination from waveforms of microearthquakes in the West Bohemia/Vogtland swarm area. <i>Journal of Geophysical Research: Solid Earth</i> , 2013, 118, 120-137.	3.4	29
60	On numerically solving the complex eikonal equation using real ray-tracing methods: A comparison with the exact analytical solution. <i>Geophysics</i> , 2012, 77, T109-T116.	2.6	28
61	Moment tensor inversion of waveforms: a two-step time-frequency approach. <i>Geophysical Journal International</i> , 2012, 190, 1761-1776.	2.4	55
62	Seismic Network Calibration for Retrieving Accurate Moment Tensors. <i>Bulletin of the Seismological Society of America</i> , 2012, 102, 2491-2506.	2.3	14
63	Principal earthquakes: Theory and observations from the 2008 West Bohemia swarm. <i>Earth and Planetary Science Letters</i> , 2011, 305, 290-296.	4.4	93
64	Tensile earthquakes: Theory, modeling, and inversion. <i>Journal of Geophysical Research</i> , 2011, 116, .	3.3	156
65	Detection of high-frequency tensile vibrations of a fault during shear rupturing: observations from the 2008 West Bohemia swarm. <i>Geophysical Journal International</i> , 2011, 186, 1404-1414.	2.4	26
66	Focal mechanisms of micro-earthquakes in the Dobruška Voda seismoactive area in the Malé Karpaty Mts. (Little Carpathians), Slovakia. <i>Tectonophysics</i> , 2010, 492, 213-229.	2.2	59
67	Behaviour of rays at interfaces in anisotropic viscoelastic media. <i>Geophysical Journal International</i> , 2010, , .	2.4	8
68	Weak anisotropy-attenuation parameters. <i>Geophysics</i> , 2009, 74, WB203-WB213.	2.6	13
69	S-wave splitting from records of local micro-earthquakes in West Bohemia/Vogtland: An indicator of complex crustal anisotropy. <i>Studia Geophysica Et Geodaetica</i> , 2008, 52, 631-650.	0.5	18
70	Real ray tracing in anisotropic viscoelastic media. <i>Geophysical Journal International</i> , 2008, 175, 617-626.	2.4	45
71	Non-double-couple mechanisms of microearthquakes induced during the 2000 injection experiment at the KTB site, Germany: A result of tensile faulting or anisotropy of a rock?. <i>Tectonophysics</i> , 2008, 456, 74-93.	2.2	85
72	Velocity, attenuation, and quality factor in anisotropic viscoelastic media: A perturbation approach. <i>Geophysics</i> , 2008, 73, D63-D73.	2.6	46

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73	Ray velocity and ray attenuation in homogeneous anisotropic viscoelastic media. <i>Geophysics</i> , 2007, 72, D119-D127.	2.6	51
74	Asymptotic Green's function in homogeneous anisotropic viscoelastic media. <i>Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences</i> , 2007, 463, 2689-2707.	2.1	50
75	On the retrieval of moment tensors from borehole data. <i>Geophysical Prospecting</i> , 2007, 55, 381-391.	1.9	142
76	Publisher's correction to "Crustal anisotropy in the Bohemian Massif, Czech Republic: Observations based on Central European Lithospheric Experiment Based on Refraction (CELEBRATION) 2000" <i>Journal of Geophysical Research</i> , 2006, 111, .	3.3	0
77	Calculation of the slowness vector from the ray vector in anisotropic media. <i>Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences</i> , 2006, 462, 883-896.	2.1	45
78	Spatially dependent seismic anisotropy in the Tonga subduction zone: A possible contributor to the complexity of deep earthquakes. <i>Physics of the Earth and Planetary Interiors</i> , 2006, 155, 63-72.	1.9	25
79	Comment to "S-waves in a vicinity of the axis of symmetry of homogeneous transversely isotropic media" by M. Popov, G.F. Passos, and M.A. Botelho [<i>Wave Motion</i> 42 (2005) 191-201]. <i>Wave Motion</i> , 2006, 44, 128-136.	2.0	1
80	Focal mechanisms produced by shear faulting in weakly transversely isotropic crustal rocks. <i>Geophysics</i> , 2006, 71, D145-D151.	2.6	8
81	Acoustic axes in triclinic anisotropy. <i>Journal of the Acoustical Society of America</i> , 2005, 118, 647-653.	1.1	33
82	Focal mechanisms in anisotropic media. <i>Geophysical Journal International</i> , 2005, 161, 334-346.	2.4	115
83	Acoustic axes in weak triclinic anisotropy. <i>Geophysical Journal International</i> , 2005, 163, 629-638.	2.4	12
84	Approximate Conditions for the Off-Axis Triplication in Transversely Isotropic Media. <i>Studia Geophysica Et Geodaetica</i> , 2004, 48, 187-198.	0.5	5
85	Comparison of Ray Methods with the Exact Solution in the 1-D Anisotropic "Simplified Twisted Crystal" Model. <i>Studia Geophysica Et Geodaetica</i> , 2004, 48, 675-688.	0.5	5
86	Inversion for anisotropy from non-double-couple components of moment tensors. <i>Journal of Geophysical Research</i> , 2004, 109, .	3.3	43
87	Azimuthal variation of Pg velocity in the Moldanubian, Czech Republic: observations based on a multi-azimuthal common-shot experiment. <i>Tectonophysics</i> , 2004, 387, 189-203.	2.2	17
88	Title is missing!. <i>Studia Geophysica Et Geodaetica</i> , 2003, 47, 691-701.	0.5	31
89	Parabolic lines and caustics in homogeneous weakly anisotropic solids. <i>Geophysical Journal International</i> , 2003, 152, 318-334.	2.4	45
90	Crustal anisotropy in the Bohemian Massif, Czech Republic: Observations based on Central European Lithospheric Experiment Based on Refraction (CELEBRATION) 2000. <i>Journal of Geophysical Research</i> , 2003, 108, .	3.3	31

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91	Generation of triplications in transversely isotropic media. Physical Review B, 2003, 68, .	3.2	22
92	Behavior of rays near singularities in anisotropic media. Physical Review B, 2003, 67, .	3.2	23
93	3D Heterogeneous Staggered-Grid Finite-Difference Modeling of Seismic Motion with Volume Harmonic and Arithmetic Averaging of Elastic Moduli and Densities. Bulletin of the Seismological Society of America, 2002, 92, 3042-3066.	2.3	355
94	Can unbiased source be retrieved from anisotropic waveforms by using an isotropic model of the medium?. Tectonophysics, 2002, 356, 125-138.	2.2	38
95	Non-double-couple earthquakes of 1997 January in West Bohemia, Czech Republic: evidence of tensile faulting. Geophysical Journal International, 2002, 149, 364-373.	2.4	96
96	Asymptotic Elastodynamic Green Function in the Kiss Singularity in Homogeneous Anisotropic Solids. Studia Geophysica Et Geodaetica, 2002, 46, 249-266.	0.5	8
97	Approximate Relation Between the Ray Vector and the Wave Normal in Weakly Anisotropic Media. Studia Geophysica Et Geodaetica, 2002, 46, 793-807.	0.5	30
98	Inversion for parameters of tensile earthquakes. Journal of Geophysical Research, 2001, 106, 16339-16355.	3.3	224
99	Ray tracing in anisotropic media with singularities. Geophysical Journal International, 2001, 145, 265-276.	2.4	49
100	Title is missing!. Studia Geophysica Et Geodaetica, 2001, 45, 67-84.	0.5	16
101	Approximate retrieval of the point source in anisotropic media: numerical modelling by indirect parametrization of the source. Geophysical Journal International, 2000, 143, 700-708.	2.4	32
102	Acoustic and elastodynamic 3D Green's functions for isotropic media with a weak velocity gradient. Wave Motion, 2000, 31, 223-236.	2.0	3
103	Title is missing!. Studia Geophysica Et Geodaetica, 2000, 44, 614-619.	0.5	6
104	Properties of Swaves near a kiss singularity: a comparison of exact and ray solutions. Geophysical Journal International, 1999, 138, 581-589.	2.4	24
105	Weak-contrast reflection/transmission coefficients in weakly anisotropic elastic media:P-wave incidence. Geophysical Journal International, 1999, 138, 553-562.	2.4	40
106	Applicability of higher-order ray theory for Swave propagation in inhomogeneous weakly anisotropic elastic media. Journal of Geophysical Research, 1999, 104, 28829-28840.	3.3	12
107	Weak Contrast. Pure and Applied Geophysics, 1998, 151, 699.	1.9	60
108	Elastodynamic and elastostatic Green tensors for homogeneous weak transversely isotropic media. Geophysical Journal International, 1997, 130, 786-800.	2.4	34

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109	SH-wave Green tensor for homogeneous transversely isotropic media by higher-order approximations in asymptotic ray theory. <i>Wave Motion</i> , 1996, 23, 83-93.	2.0	19
110	Multipolar elastic fields in homogeneous isotropic media by higher-order ray approximations. <i>Geophysical Journal International</i> , 1995, 121, 925-932.	2.4	9
111	Reply to comments on "Crustal anisotropy from local observations of shear-wave splitting in West Bohemia, Czech Republic" by G. H. R. Bokermann and J. Kawahara: Can the Hudson crack model describe behavior of real cracks?. <i>Bulletin of the Seismological Society of America</i> , 1995, 85, 661-664.	2.3	5
112	Elastic near-field wave energy radiated by a spherical cavity. <i>Reviews of Modern Physics</i> , 1994, 66, 241-247.	45.6	2
113	Energy balance of simple elastodynamic sources. <i>Pure and Applied Geophysics</i> , 1994, 143, 563-586.	1.9	2
114	Crustal anisotropy from local observations of shear-wave splitting in West Bohemia, Czech Republic. <i>Bulletin of the Seismological Society of America</i> , 1993, 83, 1420-1441.	2.3	50
115	Polarization properties of near-field waves in homogeneous isotropic and anisotropic media: numerical modelling. <i>Geophysical Journal International</i> , 1992, 110, 180-190.	2.4	10
116	Bilateral recursive restitution of true ground motion from near-field and far-field seismograms. <i>Studia Geophysica Et Geodaetica</i> , 1989, 33, 133-145.	0.5	0
117	Cosmological Redshift and Cosmic Time Dilation in the FLRW Metric. <i>Frontiers in Physics</i> , 0, 10, .	2.1	6