

Vlastislav Cervený

List of Publications by Year in descending order

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Version: 2024-02-01

80
papers

2,523
citations

279701

23
h-index

214721

47
g-index

84
all docs

84
docs citations

84
times ranked

758
citing authors

#	ARTICLE	IF	CITATIONS
1	Computation of wave fields in inhomogeneous media – Gaussian beam approach. Geophysical Journal International, 1982, 70, 109-128.	1.0	483
2	Seismic Rays and Ray Intensities in Inhomogeneous Anisotropic Media. Geophysical Journal International, 1972, 29, 1-13.	1.0	274
3	Theory of Seismic Head Waves. , 1971, , .		229
4	Fresnel volume ray tracing. Geophysics, 1992, 57, 902-915.	1.4	204
5	Synthetic body wave seismograms for laterally varying layered structures by the Gaussian beam method. Geophysical Journal International, 1983, 73, 389-426.	1.0	93
6	Plane waves in viscoelastic anisotropic media-I. Theory. Geophysical Journal International, 2005, 161, 197-212.	1.0	93
7	Paraxial ray approximations in the computation of seismic wavefields in inhomogeneous media. Geophysical Journal International, 1984, 79, 89-104.	1.0	68
8	Numerical modelling and inversion of travel times of seismic body waves in inhomogeneous anisotropic media. Geophysical Journal International, 1984, 76, 41-51.	1.0	61
9	Seismic ray method: Recent developments. Advances in Geophysics, 2007, 48, 1-126.	1.1	53
10	Expansion of a plane wave into Gaussian beams. Studia Geophysica Et Geodaetica, 1982, 26, 120-131.	0.3	49
11	Gaussian beams in two-dimensional elastic inhomogeneous media. Geophysical Journal International, 1983, 72, 417-433.	1.0	49
12	Ray tracing in factorized anisotropic inhomogeneous media. Geophysical Journal International, 1989, 99, 91-100.	1.0	49
13	Computation of Geometric Spreading of Seismic Body Waves in Laterally Inhomogeneous Media with Curved Interfaces. Geophysical Journal International, 1974, 38, 9-19.	1.0	44
14	Gaussian beams in elastic 2-D laterally varying layered structures. Geophysical Journal International, 1984, 78, 65-91.	1.0	43
15	Energy flux in viscoelastic anisotropic media. Geophysical Journal International, 2006, 166, 1299-1317.	1.0	43
16	Quality factor Q in dissipative anisotropic media. Geophysics, 2008, 73, T63-T75.	1.4	39
17	Plane waves in viscoelastic anisotropic media-II. Numerical examples. Geophysical Journal International, 2005, 161, 213-229.	1.0	37
18	On Dynamic Properties of Reflected and Head Waves in the n-layered Earth's Crust. Geophysical Journal International, 1966, 11, 139-147.	1.0	36

#	ARTICLE	IF	CITATIONS
19	Inhomogeneous Harmonic Plane Waves in Viscoelastic Anisotropic Media. <i>Studia Geophysica Et Geodaetica</i> , 2004, 48, 167-186.	0.3	36
20	Fermat's Variational Principle for Anisotropic Inhomogeneous Media. <i>Studia Geophysica Et Geodaetica</i> , 2002, 46, 567-588.	0.3	29
21	Paraxial ray methods for anisotropic inhomogeneous media. <i>Geophysical Prospecting</i> , 2007, 55, 21-37.	1.0	28
22	Ray amplitudes of seismic body waves in laterally inhomogeneous media. <i>Geophysical Journal International</i> , 1979, 57, 91-106.	1.0	27
23	The amplitude curves of reflected harmonic waves around the critical point. <i>Studia Geophysica Et Geodaetica</i> , 1961, 5, 319-351.	0.3	26
24	Synthetic body wave seismograms for three-dimensional laterally varying media. <i>Geophysical Journal International</i> , 1984, 79, 119-133.	1.0	23
25	Perturbation Hamiltonians in heterogeneous anisotropic weakly dissipative media. <i>Geophysical Journal International</i> , 2009, 178, 939-949.	1.0	23
26	Application of dynamic ray tracing in the 3-D inversion of seismic-reflection data. <i>Geophysical Journal International</i> , 1993, 113, 776-779.	1.0	21
27	Reflection and transmission coefficients for transition layers. <i>Studia Geophysica Et Geodaetica</i> , 1974, 18, 59-68.	0.3	20
28	Gaussian beams in inhomogeneous anisotropic layered structures. <i>Geophysical Journal International</i> , 2010, 180, 798-812.	1.0	20
29	On the reflection of spherical waves at a plane interface with refractive index near to one. I. <i>Studia Geophysica Et Geodaetica</i> , 1959, 3, 116-134.	0.3	16
30	Applications of dynamic ray tracing. <i>Physics of the Earth and Planetary Interiors</i> , 1988, 51, 25-35.	0.7	16
31	Reflection/transmission laws for slowness vectors in viscoelastic anisotropic media. <i>Studia Geophysica Et Geodaetica</i> , 2007, 51, 391-410.	0.3	15
32	Two-point paraxial traveltimes in an inhomogeneous anisotropic medium. <i>Geophysical Journal International</i> , 2012, 189, 1597-1610.	1.0	14
33	High-frequency radiation from earthquake sources in laterally varying layered structures. <i>Geophysical Journal International</i> , 1987, 88, 43-79.	1.0	13
34	The Amplitude-Distance Curves for Waves Reflected at a Plane Interface for Different Frequency Ranges. <i>Geophysical Journal International</i> , 1967, 13, 187-196.	1.0	12
35	Ray amplitudes of seismic body waves in inhomogeneous radially symmetric media. <i>Studia Geophysica Et Geodaetica</i> , 1983, 27, 9-18.	0.3	12
36	Analytical expressions for Fresnel volumes and interface fresnel zones of seismic body waves. Part 2: Transmitted and converted waves. Head waves. <i>Studia Geophysica Et Geodaetica</i> , 1996, 40, 381-397.	0.3	12

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37	Two-point paraxial travelttime formula for inhomogeneous isotropic and anisotropic media: Tests of accuracy. <i>Geophysics</i> , 2013, 78, WC65-WC80.	1.4	12
38	The travelttime perturbations for seismic body waves in factorized anisotropic inhomogeneous media. <i>Geophysical Journal International</i> , 2007, 107, 219-229.	1.0	11
39	Refraction of elastic waves into a medium of lower velocity " Pseudospherical waves. <i>Pure and Applied Geophysics</i> , 1971, 92, 115-132.	0.8	10
40	Ray propagator matrices in three-dimensional anisotropic inhomogeneous layered media. <i>Geophysical Journal International</i> , 2007, 168, 593-604.	1.0	10
41	Approximate expression for the hilbert transform of a certain class of functions and their application to the ray theory of seismic waves. <i>Studia Geophysica Et Geodaetica</i> , 1976, 20, 125-132.	0.3	9
42	Synthetic body wave seismograms for laterally varying media containing thin transition layers. <i>Geophysical Journal International</i> , 1989, 99, 331-349.	1.0	9
43	Weakly inhomogeneous plane waves in anisotropic, weakly dissipative media. <i>Geophysical Journal International</i> , 2008, 172, 663-673.	1.0	9
44	Low-frequency and high-frequency expressions for the reflection and transmission coefficients of seismic waves for transition layers. <i>Studia Geophysica Et Geodaetica</i> , 1976, 20, 219-235.	0.3	8
45	Ray amplitudes in a three-dimensional inhomogeneous medium. <i>Studia Geophysica Et Geodaetica</i> , 1976, 20, 401-404.	0.3	8
46	A new approximation of the velocity-depth distribution and its application to the computation of seismic wave fields. <i>Studia Geophysica Et Geodaetica</i> , 1980, 24, 17-27.	0.3	8
47	Numerical modelling of time-harmonic seismic wave fields in simple structures by the gaussian beam method. part I. <i>Studia Geophysica Et Geodaetica</i> , 1984, 28, 19-35.	0.3	8
48	Analytical expression for fresnel volumes and interface fresnel zones of seismic body waves. Part 1: Direct and unconverted reflected waves. <i>Studia Geophysica Et Geodaetica</i> , 1996, 40, 136-155.	0.3	8
49	Effects of causal absorption on seismic body waves. <i>Studia Geophysica Et Geodaetica</i> , 1982, 26, 238-253.	0.3	7
50	Computation of ray amplitudes of seismic body waves in vertically inhomogeneous media. <i>Studia Geophysica Et Geodaetica</i> , 1977, 21, 248-255.	0.3	6
51	Radiation patterns of point sources situated close to structural interfaces and to the earth's surface. <i>Pure and Applied Geophysics</i> , 1996, 148, 175-225.	0.8	6
52	A note on dynamic ray tracing in ray-centered coordinates in anisotropic inhomogeneous media. <i>Studia Geophysica Et Geodaetica</i> , 2007, 51, 411-422.	0.3	6
53	Attenuation vector in heterogeneous, weakly dissipative, anisotropic media. <i>Geophysical Journal International</i> , 2008, 175, 346-355.	1.0	6
54	Transformation relations for second-order derivatives of travel time in anisotropic media. <i>Studia Geophysica Et Geodaetica</i> , 2010, 54, 257-267.	0.3	6

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73	Numerical properties of low-frequency expansions for the reflection and transmission coefficients from transition layers. <i>Studia Geophysica Et Geodaetica</i> , 1980, 24, 124-130.	0.3	1
74	Influence of geological factors on seismic ground-motions (seismic microzoning of Prague). <i>Studia Geophysica Et Geodaetica</i> , 1981, 25, 343-355.	0.3	1
75	Numerical modelling of seismic wave fields in models containing stacks of thin layers. <i>Studia Geophysica Et Geodaetica</i> , 1987, 31, 344-358.	0.3	1
76	Polarization of plane waves in viscoelastic anisotropic media. , 2005, , .		1
77	Radiation Patterns of Point Sources Situated Close to Structural Interfaces and to the Earth's Surface. , 1996, , 175-225.		1
78	Determination of the gradient of seismic wave velocity in the lower Earth's crust from travel-time curves of waves reflected from the Mohorovičić discontinuity. <i>Studia Geophysica Et Geodaetica</i> , 1975, 19, 379-382.	0.3	0
79	Seismic Ray Theory. <i>Encyclopedia of Earth Sciences Series</i> , 2021, , 1472-1487.	0.1	0
80	Seismic Ray Theory. <i>Encyclopedia of Earth Sciences Series</i> , 2020, , 1-17.	0.1	0