

Vlastislav Cervený

List of Publications by Year in descending order

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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	Seismic Ray Theory. Encyclopedia of Earth Sciences Series, 2021, , 1472-1487.	0.1	0
2	Seismic Ray Theory. Encyclopedia of Earth Sciences Series, 2020, , 1-17.	0.1	0
3	Elementary Green function as an integral superposition of Gaussian beams in inhomogeneous anisotropic layered structures in Cartesian coordinates. Geophysical Journal International, 2017, 210, 561-569.	1.0	4
4	A note on two-point paraxial travel times. Studia Geophysica Et Geodaetica, 2013, 57, 267-275.	0.3	2
5	Two-point paraxial travelttime formula for inhomogeneous isotropic and anisotropic media: Tests of accuracy. Geophysics, 2013, 78, WC65-WC80.	1.4	12
6	Two-point paraxial traveltimes in an inhomogeneous anisotropic medium. Geophysical Journal International, 2012, 189, 1597-1610.	1.0	14
7	Boundary attenuation angles for inhomogeneous plane waves in anisotropic dissipative media. Geophysics, 2011, 76, WA51-WA62.	1.4	2
8	Seismic, Ray Theory. Encyclopedia of Earth Sciences Series, 2011, , 1244-1258.	0.1	5
9	Transformation relations for second-order derivatives of travel time in anisotropic media. Studia Geophysica Et Geodaetica, 2010, 54, 257-267.	0.3	6
10	Gaussian beams in inhomogeneous anisotropic layered structures. Geophysical Journal International, 2010, 180, 798-812.	1.0	20
11	Paraxial ray methods in inhomogeneous anisotropic media: Initial conditions. Studia Geophysica Et Geodaetica, 2009, 53, 199-214.	0.3	2
12	Perturbation Hamiltonians in heterogeneous anisotropic weakly dissipative media. Geophysical Journal International, 2009, 178, 939-949.	1.0	23
13	Weakly inhomogeneous plane waves in anisotropic, weakly dissipative media. Geophysical Journal International, 2008, 172, 663-673.	1.0	9
14	Attenuation vector in heterogeneous, weakly dissipative, anisotropic media. Geophysical Journal International, 2008, 175, 346-355.	1.0	6
15	Quality factor Q in dissipative anisotropic media. Geophysics, 2008, 73, T63-T75.	1.4	39
16	Seismic ray method: Recent developments. Advances in Geophysics, 2007, 48, 1-126.	1.1	53
17	Ray propagator matrices in three-dimensional anisotropic inhomogeneous layered media. Geophysical Journal International, 2007, 168, 593-604.	1.0	10
18	The travelttime perturbations for seismic body waves in factorized anisotropic inhomogeneous media. Geophysical Journal International, 2007, 107, 219-229.	1.0	11

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19	Time-averaged and time-dependent energy-related quantities of harmonic waves in inhomogeneous viscoelastic anisotropic media. <i>Geophysical Journal International</i> , 2007, 170, 1253-1261.	1.0	4
20	Paraxial ray methods for anisotropic inhomogeneous media. <i>Geophysical Prospecting</i> , 2007, 55, 21-37.	1.0	28
21	Reflection/transmission laws for slowness vectors in viscoelastic anisotropic media. <i>Studia Geophysica Et Geodaetica</i> , 2007, 51, 391-410.	0.3	15
22	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
23	Energy flux in viscoelastic anisotropic media. <i>Geophysical Journal International</i> , 2006, 166, 1299-1317.	1.0	43
24	Polarization of plane waves in viscoelastic anisotropic media. , 2005, , .		1
25	Plane waves in viscoelastic anisotropic media-I. Theory. <i>Geophysical Journal International</i> , 2005, 161, 197-212.	1.0	93
26	Plane waves in viscoelastic anisotropic media-II. Numerical examples. <i>Geophysical Journal International</i> , 2005, 161, 213-229.	1.0	37
27	Inhomogeneous Harmonic Plane Waves in Viscoelastic Anisotropic Media. <i>Studia Geophysica Et Geodaetica</i> , 2004, 48, 167-186.	0.3	36
28	Fermat's Variational Principle for Anisotropic Inhomogeneous Media. <i>Studia Geophysica Et Geodaetica</i> , 2002, 46, 567-588.	0.3	29
29	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
30	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
31	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
32	Radiation Patterns of Point Sources Situated Close to Structural Interfaces and to the Earth's Surface. , 1996, , 175-225.		1
33	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
34	Synthetic seismograms in radially inhomogeneous media for ISOP applications. <i>Computers and Geosciences</i> , 1993, 19, 183-187.	2.0	2
35	Fresnel volume ray tracing. <i>Geophysics</i> , 1992, 57, 902-915.	1.4	204
36	Tunneling of seismic body waves through thin high-velocity layers in complex structures. <i>Studia Geophysica Et Geodaetica</i> , 1992, 36, 115-138.	0.3	4

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37	Imaging of discontinuities in nonlinear 3D seismic inversion. <i>Geophysical Research Letters</i> , 1990, 17, 1509-1511.	1.5	2
38	Synthetic body wave seismograms for laterally varying media containing thin transition layers. <i>Geophysical Journal International</i> , 1989, 99, 331-349.	1.0	9
39	Ray tracing in factorized anisotropic inhomogeneous media. <i>Geophysical Journal International</i> , 1989, 99, 91-100.	1.0	49
40	Applications of dynamic ray tracing. <i>Physics of the Earth and Planetary Interiors</i> , 1988, 51, 25-35.	0.7	16
41	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
42	High-frequency radiation from earthquake sources in laterally varying layered structures. <i>Geophysical Journal International</i> , 1987, 88, 43-79.	1.0	13
43	Fast computation of ray synthetic seismograms in vertically inhomogeneous media. <i>Studia Geophysica Et Geodaetica</i> , 1985, 29, 49-67.	0.3	4
44	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
45	Numerical modelling of time-harmonic seismic wave fields in simple structures by the Gaussian beam method. Part II. <i>Studia Geophysica Et Geodaetica</i> , 1984, 28, 113-128.	0.3	5
46	Paraxial ray approximations in the computation of seismic wavefields in inhomogeneous media. <i>Geophysical Journal International</i> , 1984, 79, 89-104.	1.0	68
47	Synthetic body wave seismograms for three-dimensional laterally varying media. <i>Geophysical Journal International</i> , 1984, 79, 119-133.	1.0	23
48	Numerical modelling and inversion of travel times of seismic body waves in inhomogeneous anisotropic media. <i>Geophysical Journal International</i> , 1984, 76, 41-51.	1.0	61
49	Gaussian beams in elastic 2-D laterally varying layered structures. <i>Geophysical Journal International</i> , 1984, 78, 65-91.	1.0	43
50	Synthetic body wave seismograms for laterally varying layered structures by the Gaussian beam method. <i>Geophysical Journal International</i> , 1983, 73, 389-426.	1.0	93
51	Gaussian beams in two-dimensional elastic inhomogeneous media. <i>Geophysical Journal International</i> , 1983, 72, 417-433.	1.0	49
52	Ray amplitudes of seismic body waves in inhomogeneous radially symmetric media. <i>Studia Geophysica Et Geodaetica</i> , 1983, 27, 9-18.	0.3	12
53	Expansion of a plane wave into Gaussian beams. <i>Studia Geophysica Et Geodaetica</i> , 1982, 26, 120-131.	0.3	49
54	Effects of causal absorption on seismic body waves. <i>Studia Geophysica Et Geodaetica</i> , 1982, 26, 238-253.	0.3	7

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55	Space-time ray method for seismic wave fields. <i>Studia Geophysica Et Geodaetica</i> , 1982, 26, 342-351.	0.3	2
56	Computation of wave fields in inhomogeneous media – Gaussian beam approach. <i>Geophysical Journal International</i> , 1982, 70, 109-128.	1.0	483
57	Computation of ray integrals and ray amplitudes in radially symmetric media. <i>Studia Geophysica Et Geodaetica</i> , 1981, 25, 288-292.	0.3	4
58	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
59	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
60	Elementary seismograms of seismic body waves in dissipative media. <i>Studia Geophysica Et Geodaetica</i> , 1980, 24, 365-372.	0.3	5
61	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
62	Ray amplitudes of seismic body waves in laterally inhomogeneous media. <i>Geophysical Journal International</i> , 1979, 57, 91-106.	1.0	27
63	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
64	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
65	Ray amplitudes in a three-dimensional inhomogeneous medium. <i>Studia Geophysica Et Geodaetica</i> , 1976, 20, 401-404.	0.3	8
66	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
67	Determination of the gradient of seismic wave velocity in the lower Earth's crust from travel-time curves of waves reflected from the mohoroviÄ±Ä± discontinuity. <i>Studia Geophysica Et Geodaetica</i> , 1975, 19, 379-382.	0.3	0
68	Computation of Geometric Spreading of Seismic Body Waves in Laterally Inhomogeneous Media with Curved Interfaces. <i>Geophysical Journal International</i> , 1974, 38, 9-19.	1.0	44
69	Reflection and transmission coefficients for transition layers. <i>Studia Geophysica Et Geodaetica</i> , 1974, 18, 59-68.	0.3	20
70	Seismic Rays and Ray Intensities in Inhomogeneous Anisotropic Media. <i>Geophysical Journal International</i> , 1972, 29, 1-13.	1.0	274
71	Computation of diffracted rays in inhomogeneous media with curved interfaces. <i>Studia Geophysica Et Geodaetica</i> , 1972, 16, 356-366.	0.3	1
72	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

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73	Theory of Seismic Head Waves. , 1971, , .		229
74	The Amplitude-Distance Curves for Waves Reflected at a Plane Interface for Different Frequency Ranges. Geophysical Journal International, 1967, 13, 187-196.	1.0	12
75	Computation of wave fields in seismic models and real media. Studia Geophysica Et Geodaetica, 1966, 10, 259-270.	0.3	3
76	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
77	The amplitude curves of reflected harmonic waves around the critical point. Studia Geophysica Et Geodaetica, 1961, 5, 319-351.	0.3	26
78	Über die an "Schwachen" Grenzflächen Entstehenden Kopfwellen. European Physical Journal D, 1959, 9, 101-111.	0.4	2
79	On the reflection of spherical waves at a plane interface with refractive index near to one. I. Studia Geophysica Et Geodaetica, 1959, 3, 116-134.	0.3	16
80	Über die Reflexion von Kugelfeldern an einer Grenzfläche mit Brechungsindex nahe 1. Studia Geophysica Et Geodaetica, 1957, 1, 256-262.		