Jeroen Tromp

List of Publications by Year
in descending order

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205 papers	15,126 citations	23500 58 h-index	20307 116 g-index
210 all docs	210 docs citations	210 times ranked	6063 citing authors

#	Article	IF	Citations
1	Introduction to the spectral element method for three-dimensional seismic wave propagation. Geophysical Journal International, 1999, 139, 806-822.	1.0	1,095
2	Seismic tomography, adjoint methods, time reversal and banana-doughnut kernels. Geophysical Journal International, 2004, 160, 195-216.	1.0	804
3	Spectral-element simulations of global seismic wave propagation-I. Validation. Geophysical Journal International, 2002, 149, 390-412.	1.0	729
4	Spectral-element simulations of global seismic wave propagation-II. Three-dimensional models, oceans, rotation and self-gravitation. Geophysical Journal International, 2002, 150, 303-318.	1.0	454
5	Normal-Mode and Free-Air Gravity Constraints on Lateral Variations in Velocity and Density of Earth's Mantle. Science, 1999, 285, 1231-1236.	6.0	441
6	Adjoint Tomography of the Southern California Crust. Science, 2009, 325, 988-992.	6.0	404
7	Measurements and global models of surface wave propagation. Journal of Geophysical Research, 1997, 102, 8137-8157.	3.3	375
8	Misfit functions for full waveform inversion based on instantaneous phase and envelope measurements. Geophysical Journal International, 2011, 185, 845-870.	1.0	334
9	Simulations of Ground Motion in the Los Angeles Basin Based upon the Spectral-Element Method. Bulletin of the Seismological Society of America, 2004, 94, 187-206.	1.1	333
10	Seismic tomography of the southern California crust based on spectral-element and adjoint methods. Geophysical Journal International, 2010, 180, 433-462.	1.0	321
11	A perfectly matched layer absorbing boundary condition for the second-order seismic wave equation. Geophysical Journal International, 2003, 154, 146-153.	1.0	315
12	Initial results from the InSight mission on Mars. Nature Geoscience, 2020, 13, 183-189.	5.4	274
13	Forward and adjoint simulations of seismic wave propagation on fully unstructured hexahedral meshes. Geophysical Journal International, 2011, 186, 721-739.	1.0	258
14	Finite-Frequency Kernels Based on Adjoint Methods. Bulletin of the Seismological Society of America, 2006, 96, 2383-2397.	1.1	239
15	SEIS: Insightâ€™s Seismic Experiment for Internal Structure of Mars. Space Science Reviews, 2019, 215, 12.	3.7	238
16	Structure of the European upper mantle revealed by adjoint tomography. Nature Geoscience, 2012, 5, 493-498.	5.4	232
17	Earth's Free Oscillations Excited by the 26 December 2004 Sumatra-Andaman Earthquake. Science, 2005, 308, 1139-1144.	6.0	231
18	Support for anisotropy of the Earth's inner core from free oscillations. Nature, 1993, 366, 678-681.	13.7	208

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19	Constraints on the shallow elastic and anelastic structure of Mars from InSight seismic data. Nature Geoscience, 2020, 13, 213-220.	5.4	207
20	The Spectral-Element Method, Beowulf Computing, and Global Seismology. Science, 2002, 298, 1737-1742.	6.0	203
21	Global adjoint tomography: first-generation model. Geophysical Journal International, 2016, 207, 1739-1766.	1.0	194
22	Simulation of anisotropic wave propagation based upon a spectral element method. Geophysics, 2000, 65, 1251-1260.	1.4	188
23	Wave propagation near a fluidâ€solid interface: A spectralâ€element approach. Geophysics, 2000, 65, 623-631.	1.4	185
24	Seismic structure of the European upper mantle based on adjoint tomography. Geophysical Journal International, 2015, 201, 18-52.	1.0	156
25	Finite-frequency tomography using adjoint methods-Methodology and examples using membrane surface waves. Geophysical Journal International, 2007, 168, 1105-1129.	1.0	152
26	Unified Structural Representation of the southern California crust and upper mantle. Earth and Planetary Science Letters, 2015, 415, 1-15.	1.8	149
27	An automated time-window selection algorithm for seismic tomography. Geophysical Journal International, 2009, 178, 257-281.	1.0	135
28	Effects of Topography on Seismic-Wave Propagation: An Example from Northern Taiwan. Bulletin of the Seismological Society of America, 2009, 99, 314-325.	1.1	133
29	Tidal tomography constrains Earthâ€™s deep-mantle buoyancy. Nature, 2017, 551, 321-326.	13.7	129
30	The global seismographic network surpasses its design goal. Eos, 2004, 85, 225.	0.1	125
31	Finite-frequency sensitivity kernels for global seismic wave propagation based upon adjoint methods. Geophysical Journal International, 2008, 174, 265-286.	1.0	125
32	Constraining large-scale mantle heterogeneity using mantle and inner-core sensitive normal modes. Physics of the Earth and Planetary Interiors, 2004, 146, 113-124.	0.7	122
33	Glacial isostatic adjustment on 3-D Earth models: a finite-volume formulation. Geophysical Journal International, 2005, 161, 421-444.	1.0	122
34	Noise cross-correlation sensitivity kernels. Geophysical Journal International, 2010, 183, 791-819.	1.0	117
35	Spectral-Element Moment Tensor Inversions for Earthquakes in Southern California. Bulletin of the Seismological Society of America, 2004, 94, 1748-1761.	1.1	116
36	Multiparameter adjoint tomography of the crust and upper mantle beneath East Asia: 1. Model construction and comparisons. Journal of Geophysical Research: Solid Earth, 2015, 120, 1762-1786.	1.4	116

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37	Effects of Realistic Surface Topography on Seismic Ground Motion in the Yangminshan Region of Taiwan Based Upon the Spectral-Element Method and LiDAR DTM. Bulletin of the Seismological Society of America, 2009, 99, 681-693.	1.1	114
38	Spectral-element simulations of wave propagation in porous media. Geophysical Journal International, 2008, 175, 301-345.	1.0	112
39	Lithospheric foundering and underthrusting imaged beneath Tibet. Nature Communications, 2017, 8, 15659.	5.8	111
40	Global adjoint tomographyâ€"model GLAD-M25. Geophysical Journal International, 2020, 223, 1-21.	1.0	107
41	Normal-mode constraints on the structure of the Earth. Journal of Geophysical Research, 1996, 101, 20053-20082.	3.3	106
42	Three-Dimensional Simulations of Seismic-Wave Propagation in the Taipei Basin with Realistic Topography Based upon the Spectral-Element Method. Bulletin of the Seismological Society of America, 2008, 98, 253-264.	1.1	105
43	Inner-Core Anisotropy and Rotation. Annual Review of Earth and Planetary Sciences, 2001, 29, 47-69.	4.6	98
44	WAVE PROPAGATION IN 2-D ELASTIC MEDIA USING A SPECTRAL ELEMENT METHOD WITH TRIANGLES AND QUADRANGLES. Journal of Computational Acoustics, 2001, 09, 703-718.	1.0	95
45	Self-induced fracture generation in zircon. Journal of Geophysical Research, 1995, 100, 17753-17770.	3.3	92
46	The spectral-element method in seismology. Geophysical Monograph Series, 2005, , 205-227.	0.1	90
47	Elastic imaging and time-lapse migration based on adjoint methods. Geophysics, 2009, 74, WCA167-WCA177.	1.4	83
48	Planned Products of the Mars Structure Service for the InSight Mission to Mars. Space Science Reviews, 2017, 211, 611-650.	3.7	80
49	Seismic waveform inversion best practices: regional, global and exploration test cases. Geophysical Journal International, 2016, 206, 1864-1889.	1.0	79
50	Even-degree lateral variations in the Earth's mantle constrained by free oscillations and the free-air gravity anomaly. Geophysical Journal International, 2001, 145, 77-96.	1.0	77
51	A 14.6 billion degrees of freedom, 5 teraflops, 2.5 terabyte earthquake simulation on the Earth Simulator. , 2003, , .		77
52	Mapping Tectonic Deformation in the Crust and Upper Mantle Beneath Europe and the North Atlantic Ocean. Science, 2013, 341, 871-875.	6.0	76
53	Seismic wavefield imaging of Earthâ€™s interior across scales. Nature Reviews Earth & Environment, 2020, 1, 40-53.	12.2	75
54	Variational principles for surface wave propagation on a laterally heterogeneous Earth--II. Frequency-domain JWKB theory. Geophysical Journal International, 1992, 109, 599-619.	1.0	73

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55	Finite-frequency sensitivity of surface waves to anisotropy based upon adjoint methods. Geophysical Journal International, 2007, 168, 1153-1174.	1.0	73
56	Three-dimensional structure of the African superplume from waveform modelling. Geophysical Journal International, 2005, 161, 283-294.	1.0	71
57	Seismic attenuation beneath Europe and the North Atlantic: Implications for water in the mantle. Earth and Planetary Science Letters, 2013, 381, 1-11.	1.8	69
58	Adjoint centroid-moment tensor inversions. Geophysical Journal International, 2011, 186, 264-278.	1.0	67
59	Time reversal location of glacial earthquakes. Journal of Geophysical Research, 2008, 113, .	3.3	63
60	Near real-time simulations of global CMT earthquakes. Geophysical Journal International, 2010, 183, 381-389.	1.0	60
61	Surface loading of a viscoelastic earth–I. General theory. Geophysical Journal International, 1999, 137, 847-855.	1.0	59
62	Seismic Structure of the Antarctic Upper Mantle Imaged with Adjoint Tomography. Journal of Geophysical Research: Solid Earth, 2020, 125, .	1.4	59
63	Finite-frequency sensitivity of body waves to anisotropy based upon adjoint methods. Geophysical Journal International, 2007, 171, 368-389.	1.0	58
64	Anelastic sensitivity kernels with parsimonious storage for adjoint tomography and full waveform inversion. Geophysical Journal International, 2016, 206, 1467-1478.	1.0	57
65	Case Studies of Damage to Tall Steel Moment-Frame Buildings in Southern California during Large San Andreas Earthquakes. Bulletin of the Seismological Society of America, 2006, 96, 1523-1537.	1.1	56
66	Broadband modeling of the 2002 Denali fault earthquake on the Earth Simulator. Physics of the Earth and Planetary Interiors, 2003, 139, 305-313.	0.7	54
67	3D elastic full-waveform inversion of surface waves in the presence of irregular topography using an envelope-based misfit function. Geophysics, 2018, 83, R1-R11.	1.4	54
68	SeisFlowsâ€”Flexible waveform inversion software. Computers and Geosciences, 2018, 115, 88-95.	2.0	53
69	On the connection between artifact filtering in reverse-time migration and adjoint tomography. Geophysics, 2010, 75, S219-S223.	1.4	50
70	Effects of slight anisotropy on surface waves. Geophysical Journal International, 1998, 132, 654-666.	1.0	48
71	Seismic wavespeed images across the Iapetus and Tornquist suture zones. Geophysical Research Letters, 2012, 39, .	1.5	48
72	Mantleâ€driven uplift of Hangai Dome: New seismic constraints from adjoint tomography. Geophysical Research Letters, 2015, 42, 6967-6974.	1.5	48

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73	Radial anisotropy of the North American upper mantle based on adjoint tomography with USArray. Geophysical Journal International, 2017, 211, 349-377.	1.0	47
74	An Adaptable Seismic Data Format. Geophysical Journal International, 2016, 207, 1003-1011.	1.0	46
75	Effects of 3D Attenuation on Seismic Wave Amplitude and Phase Measurements. Bulletin of the Seismological Society of America, 2010, 100, 1241-1251.	1.1	44
76	3D coupled acoustic-elastic migration with topography and bathymetry based on spectral-element and adjoint methods. Geophysics, 2013, 78, S193-S202.	1.4	43
77	Double-difference adjoint seismic tomography. Geophysical Journal International, 2016, 206, 1599-1618.	1.0	42
78	Joint inversion of normal mode and body wave data for inner core anisotropy 1. Laterally homogeneous anisotropy. Journal of Geophysical Research, 2002, 107, ESE 20-1-ESE 20-16.	3.3	41
79	Variational principles for surface wave propagation on a laterally heterogeneous Earth--I. Time-domain JWKB theory. Geophysical Journal International, 1992, 109, 581-598.	1.0	40
80	Influence of lithospheric thickness variations on 3-D crustal velocities due to glacial isostatic adjustment. Geophysical Research Letters, 2005, 32, .	1.5	40
81	Tunnel detection at Yuma Proving Ground, Arizona, USA â€" Part 2: 3D full-waveform inversion experiments. Geophysics, 2019, 84, B107-B120.	1.4	40
82	Effects of crust and mantle heterogeneity on PP/P and SS/S amplitude ratios. Geophysical Research Letters, 2002, 29, 72-1-72-4.	1.5	38
83	Tunnel detection at Yuma Proving Ground, Arizona, USA â€" Part 1: 2D full-waveform inversion experiment. Geophysics, 2019, 84, B95-B105.	1.4	38
84	Preparing for InSight: An Invitation to Participate in a Blind Test for Martian Seismicity. Seismological Research Letters, 2017, 88, 1290-1302.	0.8	37
85	Uniformly valid body-wave ray theory. Geophysical Journal International, 1996, 127, 461-491.	1.0	36
86	Theoretical and numerical investigations of global and regional seismic wave propagation in weakly anisotropic earth models. Geophysical Journal International, 2007, 168, 1130-1152.	1.0	36
87	Waveform modeling of the slab beneath Japan. Journal of Geophysical Research, 2007, 112, .	3.3	35
88	Seismic modeling and imaging based upon spectral-element and adjoint methods. The Leading Edge, 2009, 28, 568-574.	0.4	35
89	THE ADJOINT METHOD APPLIED TO TIME-DISTANCE HELIOSEISMOLOGY. Astrophysical Journal, 2011, 738, 100.	1.6	35
90	Joint inversion of normal mode and body wave data for inner core anisotropy 2. Possible complexities. Journal of Geophysical Research, 2002, 107, ESE 21-1-ESE 21-17.	3.3	34

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91	Finite-frequency kernels for wave propagation in porous media based upon adjoint methods. Geophysical Journal International, 2009, 179, 1148-1168.	1.0	34
92	Spectral-Element Simulations of Seismic Waves Generated by the 2009 L'Aquila Earthquake. Bulletin of the Seismological Society of America, 2014, 104, 73-94.	1.1	34
93	CUBIT and Seismic Wave Propagation Based Upon the Spectral-Element Method: An Advanced Unstructured Mesher for Complex 3D Geological Media. , 2008, , 579-597.		33
94	Antipodal focusing of seismic waves due to large meteorite impacts on Earth. Geophysical Journal International, 2011, 187, 529-537.	1.0	33
95	Application of an elastoplastic spectralâ€element method to 3D slope stability analysis. International Journal for Numerical Methods in Engineering, 2012, 91, 1-26.	1.5	33
96	Variational Principles For Surface Wave Propagation On A Laterally Heterogeneous Earth-Iii. Potential Representation. Geophysical Journal International, 1993, 112, 195-209.	1.0	32
97	Toroidal splitting observations from the Great 1994 Bolivia and Kuril Islands Earthquakes. Geophysical Research Letters, 1995, 22, 2297-2300.	1.5	32
98	Analysis of strong scattering at the micro-scale. Journal of the Acoustical Society of America, 2004, 115, 1006-1011.	0.5	32
99	Performance of Two 18-Story Steel Moment-Frame Buildings in Southern California during Two Large Simulated San Andreas Earthquakes. Earthquake Spectra, 2006, 22, 1035-1061.	1.6	32
100	Finite-Frequency SKS Splitting: Measurement and Sensitivity Kernels. Bulletin of the Seismological Society of America, 2008, 98, 1797-1810.	1.1	32
101	Modeling 3â€D wave propagation and finite slip for the 1998 Balleny Islands earthquake. Journal of Geophysical Research, 2009, 114, .	3.3	32
102	Analysis of Regolith Properties Using Seismic Signals Generated by InSightâ€™s HP3 Penetrator. Space Science Reviews, 2017, 211, 315-337.	3.7	31
103	Application of 2D full-waveform inversion on exploration land data. Geophysics, 2020, 85, R75-R86.	1.4	31
104	Normal-mode splitting due to inner-core anisotropy. Geophysical Journal International, 1995, 121, 963-968.	1.0	30
105	Rayleigh-Wave Multipathing along the West Coast of North America. Bulletin of the Seismological Society of America, 2005, 95, 2115-2124.	1.1	30
106	Surface loading of a viscoelastic planet--III. Aspherical models. Geophysical Journal International, 2000, 140, 425-441.	1.0	29
107	Principal component analysis of anisotropic finite-frequency sensitivity kernels. Geophysical Journal International, 2009, 179, 1186-1198.	1.0	29
108	Surface loading of a viscoelastic earth--II. Spherical models. Geophysical Journal International, 1999, 137, 856-872.	1.0	28

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109	Balancing unevenly distributed data in seismic tomography: a global adjoint tomography example. Geophysical Journal International, 2019, 219, 1225-1236.	1.0	28
110	High-frequency simulations of global seismic wave propagation using SPECFEM3D_GLOBE on 62K processors. , 2008, , .		27
111	The origin of secondary microseism Love waves. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 29504-29511.	3.3	27
112	Free oscillations of a spherical anelastic earth. Geophysical Journal International, 1990, 103, 707-723.	1.0	26
113	Global and regional surface-wave inversions: A spherical-spline parameterization. Geophysical Research Letters, 1998, 25, 207-210.	1.5	26
114	Forward and adjoint simulations of seismic wave propagation on emerging large-scale GPU architectures. , 2012, , .		26
115	Harnessing the Power of Many: Extensible Toolkit for Scalable Ensemble Applications. , 2018, , .		26
116	Imaging lateral heterogeneity in the northern Apennines from time reversal of reflected surface waves. Geophysical Journal International, 2009, 177, 543-554.	1.0	25
117	Sensitivity kernels for viscoelastic loading based on adjoint methods. Geophysical Journal International, 2014, 196, 34-77.	1.0	25
118	Quantifying the sensitivity of post-glacial sea level change to laterally varying viscosity. Geophysical Journal International, 2018, 214, 1324-1363.	1.0	25
119	Resolution of regional seismic models: Squeezing the Iceland anomaly. Geophysical Journal International, 2005, 161, 373-386.	1.0	24
120	A new analysis of the great 1970 Colombia earthquake and its isotropic component. Journal of Geophysical Research, 1997, 102, 20423-20434.	3.3	20
121	Acoustic, elastic and poroelastic simulations of CO2 sequestration crosswell monitoring based on spectral-element and adjoint methods. Geophysical Journal International, 2011, 185, 955-966.	1.0	20
122	Anisotropic full-waveform inversion with tilt-angle recovery. Geophysics, 2017, 82, R135-R151.	1.4	20
123	The Berry phase of a slowly varying waveguide. Proceedings of the Royal Society A, 1992, 437, 329-342.	1.0	19
124	A 1.8 trillion degrees-of-freedom, 1.24 petaflops global seismic wave simulation on the K computer. International Journal of High Performance Computing Applications, 2016, 30, 411-422.	2.4	19
125	Simulations of Seismic Wave Propagation on Mars. Space Science Reviews, 2017, 211, 571-594.	3.7	19
126	Spectral-infinite-element simulations of gravity anomalies. Geophysical Journal International, 2018, 215, 1098-1117.	1.0	19

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127	A normal mode treatment of semi-diurnal body tides on an aspherical, rotating and anelastic Earth. Geophysical Journal International, 2015, 202, 1392-1406.	1.0	18
128	Effects of induced stress on seismic forward modelling and inversion. Geophysical Journal International, 2018, 213, 851-867.	1.0	18
129	A Coupled Local-Mode Analysis of Surface-Wave Propagation In A Laterally Heterogeneous Waveguide. Geophysical Journal International, 1994, 117, 153-161.	1.0	17
130	Is there a first-order discontinuity in the lowermost mantle?. Earth and Planetary Science Letters, 1998, 160, 343-351.	1.8	17
131	On Maxwell singularities in postglacial rebound. Geophysical Journal International, 1999, 136, 492-498.	1.0	17
132	Crustal anisotropy in a subduction zone forearc: Northern Cascadia. Journal of Geophysical Research: Solid Earth, 2014, 119, 7058-7078.	1.4	17
133	Synthetic free-oscillation spectra: an appraisal of various mode-coupling methods. Geophysical Journal International, 2015, 203, 1179-1192.	1.0	17
134	Source encoding for adjoint tomography. Geophysical Journal International, 2019, 218, 2019-2044.	1.0	17
135	Simulation of multistage excavation based on a 3D spectral-element method. Computers and Structures, 2012, 100-101, 54-69.	2.4	16
136	Source encoding for viscoacoustic ultrasound computed tomography. Journal of the Acoustical Society of America, 2020, 147, 3221-3235.	0.5	16
137	The reflection and transmission of planeP- andS-waves by a continuously stratified band: a new approach using invariant imbedding. Geophysical Journal International, 1989, 96, 447-456.	1.0	15
138	Summation of the Born series for the normal modes of the Earth. Geophysical Journal International, 1990, 100, 527-533.	1.0	15
139	Surface Wave Propagation In A Slowly Varying Anisotropic Waveguide. Geophysical Journal International, 1993, 113, 239-249.	1.0	15
140	Seismic Probes of Solar Interior Magnetic Structure. Physical Review Letters, 2012, 109, 101101.	2.9	15
141	Pre-conditioned BFGS-based uncertainty quantification in elastic full-waveform inversion. Geophysical Journal International, 2021, 228, 796-815.	1.0	15
142	A Structural VP Model of the Salton Trough, California, and Its Implications for Seismic Hazard. Bulletin of the Seismological Society of America, 2006, 96, 1882-1896.	1.1	14
143	Surface wave sensitivity: mode summation versus adjoint SEM. Geophysical Journal International, 2011, 187, 1560-1576.	1.0	14
144	Maslov theory for surface wave propagation on a laterally heterogeneous earth. Geophysical Journal International, 1993, 115, 512-528.	1.0	13

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145	Surface Wave Caustics. Geophysical Journal International, 1993, 114, 311-324.	1.0	13
146	Impact of topography and three-dimensional heterogeneity on coseismic deformation. Geophysical Journal International, 2019, 217, 866-878.	1.0	13
147	Spectral-infinite-element simulations of coseismic and post-earthquake deformation. Geophysical Journal International, 2019, 216, 1364-1393.	1.0	13
148	Strategies in Adjoint Tomography. , 2013, , 1-52.		13
149	DETECTABLE SEISMIC CONSEQUENCES OF THE INTERACTION OF A PRIMORDIAL BLACK HOLE WITH EARTH. Astrophysical Journal, 2012, 751, 16.	1.6	12
150	FULL WAVEFORM INVERSION FOR TIME-DISTANCE HELIOSEISMOLOGY. Astrophysical Journal, 2014, 784, 69.	1.6	12
151	Forward and inverse modelling of post-seismic deformation. Geophysical Journal International, 2017, 208, 845-876.	1.0	12
152	Impact of topography on earthquake static slip estimates. Tectonophysics, 2020, 791, 228566.	0.9	12
153	Generation of secondary microseism Love waves: effects of bathymetry, 3-D structure and source seasonality. Geophysical Journal International, 2021, 226, 192-219.	1.0	12
154	Present-day secular variations in the low-degree harmonics of the geopotential: Sensitivity analysis on spherically symmetric Earth models. Journal of Geophysical Research, 2002, 107, ETG 18-1-ETG 18-10.	3.3	11
155	Toward real-time regional earthquake simulation II: Real-time Online earthquake Simulation (ROS) of Taiwan earthquakes. Journal of Asian Earth Sciences, 2014, 87, 56-68.	1.0	11
156	Wave Propagation in Porous Media Saturated with Two Fluids. Transport in Porous Media, 2015, 107, 49-63.	1.2	11
157	Automated time-window selection based on machine learning for full-waveform inversion. , 2017, , .		11
158	Spectral-infinite-element simulations of earthquake-induced gravity perturbations. Geophysical Journal International, 2019, 217, 451-468.	1.0	11
159	Anelasticity across seismic to tidal timescales: a self-consistent approach. Geophysical Journal International, 2017, 208, 368-384.	1.0	10
160	Surface-Wave Propagation On A Rotating, Anisotropic Earth. Geophysical Journal International, 1994, 117, 141-152.	1.0	9
161	GIA-induced secular variations in the Earth's long wavelength gravity field: Influence of 3-D viscosity variations. Earth and Planetary Science Letters, 2005, 240, 322-327.	1.8	9
162	Spectral-element based 3D elastic full-waveform inversion of surface waves in the presence of complex topography using an envelope-based misfit function. , 2016, , .		9

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163	Stress-dependent elasticity and wave propagation â€" New insights and connections. Geophysics, 2021, 86, W47-W64.	1.4	9
164	Effects of Induced Stress on Seismic Waves: Validation Based on Ab Initio Calculations. Journal of Geophysical Research: Solid Earth, 2019, 124, 729-741.	1.4	8
165	Computations of Global Seismic Wave Propagation in Three Dimensional Earth Model. , 2005, , 434-443.		7
166	Adjoint tomography of the Italian lithosphere. Communications Earth & Environment, 2022, 3, .	2.6	7
167	GEOSCIENCE:Enhanced: Two Views of the Deep Mantle. , 1998, 281, 655-656.		6
168	Spectral-infinite-element simulations of magnetic anomalies. Geophysical Journal International, 2019, 217, 1656-1667.	1.0	6
169	Robust surface-wave full-waveform inversion. , 2019, , .		6
170	Modeling of seismic wave propagation at the scale of the Earth on a large Beowulf. , 2001, , .		5
171	Supercomputing moves to universities and makes possible new ways to organize computational research. Eos, 2003, 84, 30.	0.1	5
172	Dinuclear copper(I) benzoato quinoline complexes as intermediates in the copper-quinoline decarboxylation reaction. Recueil Des Travaux Chimiques Des Pays-Bas, 2010, 108, 295-303.	0.0	5
173	Rapid Estimation of Damage to Tall Buildings Using Near Real-Time Earthquake and Archived Structural Simulations. Bulletin of the Seismological Society of America, 2012, 102, 2646-2666.	1.1	5
174	Sensitivity Kernels for Inferring Lorentz Stresses from Normal-mode Frequency Splittings in the Sun. Astrophysical Journal, 2020, 897, 38.	1.6	5
175	Inferring Solar Differential Rotation through Normal-mode Coupling Using Bayesian Statistics. Astrophysical Journal, Supplement Series, 2021, 253, 47.	3.0	5
176	Strategies in Adjoint Tomography. , 2015, , 1943-2001.		5
177	3D elastic migration with topography based on spectral-element and adjoint methods. , 2012, , .		5
178	Multi-component 3D Elastic Full Waveform Inversion Using Surface and Body Waves for Detecting Near Surface Anomalies. , 2017, , .		5
179	On the choice of material parameters for elastic waveform inversion. , 2016, , .		4
180	Theory and Observations â€" Forward Modeling and Synthetic Seismograms: 3-D Numerical Methods. , 2007, , 191-217.		3

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181	Spectral-Element Simulations of Acoustic Waves Induced by a Moving Underwater Source. Journal of Theoretical and Computational Acoustics, 2019, 27, 1850040.	0.5	3
182	Uniformly valid asymptotic wave propagation based upon variational principles. Wave Motion, 1993, 17, 185-196.	1.0	2
183	A BASIC INTRODUCTION TO QUANTITATIVE SEISMIC HAZARD ASSESSMENT. Journal of Earthquake and Tsunami, 2007, 01, 99-118.	0.7	2
184	Science and Engineering in the Petascale Era. Computing in Science and Engineering, 2009, 11, 28-37.	1.2	2
185	Anisotropic imaging with fast recovery of tilt and azimuthal angles. , 2015, , .		2
186	Theory and Obeservations - Forward Modeling and Synthetic Seismograms, 3D Numerical Methods. , 2015, , 231-251.		2
187	Near-surface seismic imaging of tunnels using 3D elastic full-waveform inversion. , 2017, , .		2
188	A practical approach to seismic imaging of tunnels using 3D full-waveform inversion. Geophysics, 2018, , 1-53.	1.4	2
189	Simulations of seismic wave propagation using a spectral-element method in a Lagrangian framework with logarithmic strain. Geophysical Journal International, 2019, 216, 2148-2157.	1.0	2
190	Elastic full-waveform inversion of VSP data from a complex anticline in northern Iraq. , 2021, , .		2
191	The spectral element method for threeâ€dimensional seismic wave propagation. , 2000, , .		2
192	Seismology of the core. Reviews of Geophysics, 1995, 33, 329.	9.0	1
193	Francis Anthony Dahlen (1942-2007). Seismological Research Letters, 2007, 78, 485-485.	0.8	1
194	Overview: Particle Acceleration by Waves and Turbulence. Geophysical Monograph Series, 0, , 107-108.	0.1	1
195	Computational efficiency of full waveform inversion algorithms. , 2015, , .		1
196	Tsunami generation by ocean floor rupture front propagation: Hamiltonian description. Natural Hazards and Earth System Sciences, 2009, 9, 217-227.	1.5	1
197	Modeling and imaging based upon spectralâ€element and adjoint methods. , 2010, , .		1
198	Describing stress-dependent elasticity and wave propagation: New insights and connections between approaches. , 2019, , .		1

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199	Simulations of global seismic wave propagation for 3-D Earth model. , 0, , .		0
200	Imaging Earth. , 2013, , .		0
201	Pillars of the Mantle. , 2017, , .		0
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