Guust Nolet

List of Publications by Year
in descending order

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115 papers	7,743 citations	66343 42 h-index	53230 85 g-index
116 all docs	116 docs citations	116 times ranked	3523 citing authors

#	Article	IF	Citations
1	Finite-Frequency Tomography Reveals a Variety of Plumes in the Mantle. Science, 2004, 303, 338-343.	12.6	941
2	FrÃ©chet kernels for finite-frequency traveltimes-I. Theory. Geophysical Journal International, 2000, 141, 157-174.	2.4	628
3	Tomographic imaging of subducted lithosphere below northwest Pacific island arcs. Nature, 1991, 353, 37-43.	27.8	519
4	Partitioned waveform inversion and twoâ€dimensional structure under the network of autonomously recording seismographs. Journal of Geophysical Research, 1990, 95, 8499-8512.	3.3	279
5	Two-stage subduction history under North America inferred from multiple-frequency tomography. Nature Geoscience, 2008, 1, 458-462.	12.9	262
6	Upper mantle beneath Southeast Asia fromSvelocity tomography. Journal of Geophysical Research, 2003, 108, .	3.3	261
7	Three-dimensional sensitivity kernels for surface wave observables. Geophysical Journal International, 2004, 158, 142-168.	2.4	255
8	FrÃ©chet kernels for finite-frequency traveltimes-II. Examples. Geophysical Journal International, 2000, 141, 175-203.	2.4	247
9	Solving or resolving inadequate and noisy tomographic systems. Journal of Computational Physics, 1985, 61, 463-482.	3.8	171
10	Finite frequency whole mantle P wave tomography: Improvement of subducted slab images. Geophysical Research Letters, 2013, 40, 5652-5657.	4.0	167
11	Shear-wave velocity variations in the upper mantle beneath central Europe. Geophysical Journal International, 1994, 117, 695-715.	2.4	164
12	Tomographic inversion using â„“1-norm regularization of wavelet coefficients. Geophysical Journal International, 2007, 170, 359-370.	2.4	148
13	Imaging the mantle beneath Iceland using integrated seismological techniques. Journal of Geophysical Research, 2002, 107, ESE 3-1-ESE 3-16.	3.3	144
14	Wave front healing and the evolution of seismic delay times. Journal of Geophysical Research, 2000, 105, 19043-19054.	3.3	132
15	Low S velocities under the Tornquist-Teisseyre zone: Evidence for water injection into the transition zone by subduction. Journal of Geophysical Research, 1994, 99, 15813.	3.3	131
16	Seismic image of the subducted trailing fragments of the Farallon plate. Nature, 1997, 386, 266-269.	27.8	125
17	Three-dimensional waveform sensitivity kernels. Geophysical Journal International, 1998, 132, 521-534.	2.4	125
18	Wavefront healing: a banana-doughnut perspective. Geophysical Journal International, 2001, 146, 289-312.	2.4	117

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19	Plume-driven plumbing and crustal formation in Iceland. Journal of Geophysical Research, 2002, 107, ESE 4-1.	3.3	116
20	Global upper-mantle structure from finite-frequency surface-wave tomography. Journal of Geophysical Research, 2006, 111, .	3.3	112
21	Explicit, approximate expressions for the resolution anda posterioricovariance of massive tomographic systems. Geophysical Journal International, 1999, 138, 36-44.	2.4	92
22	Array analysis of seismic surface waves: Limits and possibilities. Pure and Applied Geophysics, 1976, 114, 775-790.	1.9	88
23	A formalism for nonlinear inversion of seismic surface waves. Geophysical Research Letters, 1986, 13, 26-29.	4.0	87
24	Automated multimode inversion of surface andSwaveforms. Geophysical Journal International, 2005, 162, 951-964.	2.4	84
25	Solving or resolving global tomographic models with spherical wavelets, and the scale and sparsity of seismic heterogeneity. Geophysical Journal International, 2011, 187, 969-988.	2.4	83
26	Finite-frequency effects in global surface-wave tomography. Geophysical Journal International, 2005, 163, 1087-1111.	2.4	82
27	Higher Rayleigh modes in western Europe. Geophysical Research Letters, 1975, 2, 60-62.	4.0	80
28	The thin hot plume beneath Iceland. Geophysical Journal International, 1999, 137, 51-63.	2.4	80
29	Seismic evidence for a tilted mantle plume and northâ€“south mantle flow beneath Iceland. Earth and Planetary Science Letters, 2002, 197, 261-272.	4.4	76
30	Measuring finite-frequency body-wave amplitudes and traveltimes. Geophysical Journal International, 2006, 167, 271-287.	2.4	70
31	Mantle plume tomography. Chemical Geology, 2007, 241, 248-263.	3.3	69
32	A model for the deep structure of the East African rift system from simultaneous inversion of teleseismic data. Tectonophysics, 1982, 84, 151-178.	2.2	64
33	Nullspace shuttles. Geophysical Journal International, 1996, 124, 372-380.	2.4	61
34	Multiple-frequencySH-wave tomography of the western US upper mantle. Geophysical Journal International, 2009, 178, 1384-1402.	2.4	59
35	Waveform Analysis of Scholte Modes In Ocean Sediment Layers. Geophysical Journal International, 1996, 125, 385-396.	2.4	58
36	Synthetic seismograms for a synthetic Earth: long-period P- and S-wave traveltime variations can be explained by temperature alone. Geophysical Journal International, 2012, 188, 1393-1412.	2.4	58

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37	Waveform inversions and the significance of surface-wave mode coupling. Geophysical Journal International, 1996, 124, 258-278.	2.4	56
38	New inferences from higher mode data in western Europe and northern Eurasia. Geophysical Journal International, 1980, 61, 459-478.	2.4	52
39	Variability of P660s phases as a consequence of topography of the 660 km discontinuity. Physics of the Earth and Planetary Interiors, 1994, 86, 147-164.	1.9	51
40	Slab temperature and thickness from seismic tomography: 1. Method and application to Tonga. Journal of Geophysical Research, 1999, 104, 28789-28802.	3.3	51
41	Structure of North American mantle constrained by simultaneous inversion of multiple-frequencySH,SS, and Love waves. Journal of Geophysical Research, 2011, 116, .	3.3	48
42	On the linearity of cross-correlation delay times in finite-frequency tomography. Geophysical Journal International, 2013, 192, 681-687.	2.4	43
43	Pwave amplitudes in a 3-D earth. Geophysical Journal International, 2003, 155, 1-10.	2.4	42
44	Crustal thickness map of the western United States by partitioned waveform inversion. Journal of Geophysical Research, 1998, 103, 30021-30038.	3.3	40
45	Dynamic ray tracing and traveltime corrections for global seismic tomography. Journal of Computational Physics, 2007, 226, 672-687.	3.8	39
46	On the potential of recording earthquakes for global seismic tomography by lowâ€cost autonomous instruments in the oceans. Journal of Geophysical Research, 2009, 114, .	3.3	39
47	Seismic monitoring in the oceans by autonomous floats. Nature Communications, 2015, 6, 8027.	12.8	38
48	Teleseismic Delay Times In A 3-D Earth and A New Look At theSDiscrepancy. Geophysical Journal International, 1993, 114, 185-195.	2.4	36
49	Global seismic tomography with sparsity constraints: Comparison with smoothing and damping regularization. Journal of Geophysical Research: Solid Earth, 2013, 118, 4887-4899.	3.4	35
50	The influence of upper mantle discontinuities on the toroidal free oscillations of the Earth. Geophysical Journal International, 1979, 56, 283-308.	2.4	33
51	Imaging the GalÃ¡pagos mantle plume with an unconventional application of floating seismometers. Scientific Reports, 2019, 9, 1326.	3.3	33
52	Linearized Inversion of (Teleseismic) Data. , 1981, , 9-37.		33
53	Slab temperature and thickness from seismic tomography: 2. Izu-Bonin, Japan, and Kuril subduction zones. Journal of Geophysical Research, 1999, 104, 28803-28812.	3.3	30
54	Optimal parametrization of tomographic models. Geophysical Journal International, 2005, 161, 365-372.	2.4	30

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55	Computing traveltime and amplitude sensitivity kernels in finite-frequency tomography. Journal of Computational Physics, 2007, 226, 2271-2288.	3.8	30
56	Solving large linear inverse problems by projection. Geophysical Journal International, 1990, 103, 565-568.	2.4	29
57	Diffraction effects upon finite-frequency travel times: A simple 2-D example. Geophysical Research Letters, 1998, 25, 1983-1986.	4.0	29
58	Multiple scattering of high-frequency seismic waves in the deep Earth: Modeling and numerical examples. Journal of Geophysical Research, 2003, 108, .	3.3	29
59	Comment on â€˜On sensitivity kernels for â€˜wave-equationâ€™ transmission tomographyâ€™ by de Hoop and van der Hilst. Geophysical Journal International, 2005, 163, 949-951.	2.4	27
60	The upper mantle beneath the Philippine Sea region from waveform inversions. Geophysical Research Letters, 1997, 24, 1851-1854.	4.0	25
61	Modern mermaids: New floats image the deep Earth. Eos, 2011, 92, 337-338.	0.1	25
62	Simultaneous inversion of seismic data. Geophysical Journal International, 1978, 55, 679-691.	2.4	23
63	Slabs Do Not Go Gently. Science, 2009, 324, 1152-1153.	12.6	22
64	The Crustal Structure From Teleseismic P-Wave Coda-I. Method. Geophysical Journal International, 1993, 112, 15-25.	2.4	21
65	A future for drifting seismic networks. Eos, 2006, 87, 305.	0.1	20
66	Surface wave tomography for azimuthal anisotropy in a strongly reduced parameter space. Geophysical Journal International, 2008, 174, 629-648.	2.4	19
67	Crustal structure of the eastern Mediterranean inferred from Rayleigh wave dispersion. Earth and Planetary Science Letters, 1980, 51, 336-342.	4.4	18
68	Crustal thickness estimation using high frequency Rayleigh waves. Geophysical Research Letters, 1995, 22, 539-542.	4.0	17
69	Automatic discrimination of underwater acoustic signals generated by teleseismic P-waves: A probabilistic approach. Geophysical Research Letters, 2011, 38, n/a-n/a.	4.0	17
70	Sn velocities in western and eastern North America. Geophysical Research Letters, 1998, 25, 1557-1560.	4.0	16
71	Traveltimes and amplitudes of seismic waves: A re-assessment. Geophysical Monograph Series, 2005, , 37-47.	0.1	13
72	An averaged model for the Adriatic subplate. Pure and Applied Geophysics, 1978, 116, 1284-1298.	1.9	12

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73	The deep structure of Corsica as inferred by a broad band seismological profile. Geophysical Research Letters, 1999, 26, 2661-2664.	4.0	12
74	An intermediate-depth tensional earthquake (MW 5.7) and its aftershocks within the Nazca slab, central Chile: A reactivated outer rise fault?. Earth and Planetary Science Letters, 2012, 327-328, 9-16.	4.4	12
75	Compression approaches for the regularized solutions of linear systems from large-scale inverse problems. GEM - International Journal on Geomathematics, 2015, 6, 251-294.	1.6	12
76	On the use of rayleigh wave group velocities for the analysis of continental margins. Tectonophysics, 1979, 59, 335-346.	2.2	11
77	Pâ€Delays from Floating Seismometers (MERMAID), Part I: Data Processing. Seismological Research Letters, 2016, 87, 73-80.	1.9	10
78	Multiscale Estimation of Event Arrival Times and Their Uncertainties in Hydroacoustic Records from Autonomous Oceanic Floats. Bulletin of the Seismological Society of America, 2020, 110, 970-997.	2.3	9
79	Cross-borehole tomography with correlation delay times. Geophysics, 2014, 79, R1-R12.	2.6	8
80	Automatic recognition of T and teleseismic P waves by statistical analysis of their spectra: An application to continuous records of moored hydrophones. Journal of Geophysical Research: Solid Earth, 2014, 119, 6469-6485.	3.4	8
81	Traveltime dispersion in an isotropic elastic mantle: strong lower-mantle signal in differential-frequency residuals. Geophysical Journal International, 2015, 203, 2099-2118.	2.4	7
82	Empirical determination of depth-distance corrections for mband Mwfrom global seismograph network stations. Geophysical Research Letters, 1998, 25, 1451-1454.	4.0	6
83	Perspectives on array seismology and USArray. Geophysical Monograph Series, 2005, , 1-6.	0.1	6
84	Surface sediment effects on teleseismicPwave amplitude. Journal of Geophysical Research, 2003, 108, .	3.3	5
85	Solving large tomographic linear systems: size reduction and error estimation. Geophysical Journal International, 2014, 199, 276-285.	2.4	5
86	Hydrophone Calibration at Very Low Frequencies. Bulletin of the Seismological Society of America, 2015, 105, 1797-1802.	2.3	4
87	Floating Seismographs (MERMAIDS). Encyclopedia of Earth Sciences Series, 2020, , 1-6.	0.1	3
88	F. Anthony Dahlen (1942â€“2007). Nature, 2007, 448, 268-268.	27.8	1
89	MeLa: A Programming Language for a New Multidisciplinary Oceanographic Float. Sensors, 2020, 20, 6081.	3.8	1
90	Global Seismology and the Investigation of Deep Continental Structure. , 1984, , 5-22.		1

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91	Transmission Tomography in Seismology. , 2014, , 1-16.		1
92	Transmission Tomography in Seismology. , 2015, , 1887-1904.		1
93	Imaging with Teleseismic Data. , 1989, , 27-47.		1
94	Reply [to â€œComment on â€˜Empirical determination of depth-distance corrections formbandMwfrom Global Seismograph Network Stationsâ€™ by G. Nolet et al.â€]. Geophysical Research Letters, 1998, 25, 4243-4244.	4.0	0
95	Reply [to â€œComment on â€˜Empirical determination of depth-distance corrections for mband MWfrom Global Seismograph Network Stationsâ€™ By Guust Nolet, Steve Krueger and Robert M. Clouserâ€]. Geophysical Research Letters, 1998, 25, 4271-4272.	4.0	0
96	Reply [to â€œComment on â€œDiffraction effects upon finite-frequency travel times: A simple 2-D exampleâ€• by Tong et al.â€]. Geophysical Research Letters, 1999, 26, 2035-2035.	4.0	0
97	Ray theory for seismic waves. , 0, , 11-39.		0
98	Body wave amplitudes: theory. , 0, , 82-92.		0
99	Travel times: observations. , 0, , 93-115.		0
100	Travel times: interpretation. , 0, , 116-144.		0
101	Body wave amplitudes: observation and interpretation. , 0, , 145-157.		0
102	Surface wave interpretation: ray theory. , 0, , 178-207.		0
103	Surface waves: finite-frequency theory. , 0, , 208-218.		0
104	Common corrections. , 0, , 233-254.		0
105	Resolution and error analysis. , 0, , 277-288.		0
106	Model parametrization. , 0, , 219-232.		0
107	Floating Seismographs (MERMAIDS). Encyclopedia of Earth Sciences Series, 2021, , 395-399.	0.1	0
108	Earthâ€™s Structure, Upper Mantle. Encyclopedia of Earth Sciences Series, 2021, , 183-189.	0.1	0

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109	Seismic Tomography. Encyclopedia of Earth Sciences Series, 2021, , 1507-1511.	0.1	0
110	Seismic Tomography. Encyclopedia of Earth Sciences Series, 2011, , 1195-1198.	0.1	0
111	Transmission Tomography in Seismology. , 2013, , 1-16.		0
112	A Seismic Tomography Program for Geological Investigations. , 1991, , 109-126.		0
113	Partitioned Nonlinear Optimization for the Interpretation of Seismograms. The IMA Volumes in Mathematics and Its Applications, 1997, , 385-393.	0.5	0
114	Seismic Tomography. Encyclopedia of Earth Sciences Series, 2019, , 1-5.	0.1	0
115	Earthâ€™s Structure, Upper Mantle. Encyclopedia of Earth Sciences Series, 2019, , 1-7.	0.1	0