Jean Paul Montagner

List of Publications by Year
in descending order

138 papers	6,696 citations	57758 44 h-index	69250 77 g-index
141 all docs	141 docs citations	141 times ranked	3154 citing authors

#	Article	IF	Citations
1	Evidence for crustal seismic anisotropy at the InSight lander site. Earth and Planetary Science Letters, 2022, 593, 117654.	4.4	21
2	Seismology and Environment. Encyclopedia of Earth Sciences Series, 2021, , 1655-1661.	0.1	0
3	Multiâ€Mode Waveform Tomography of the Indian Ocean Upper and Midâ€Mantle Around the RÃ©union Hotspot. Journal of Geophysical Research: Solid Earth, 2021, 126, e2020JB021490.	3.4	13
4	The mantle transition zone dynamics as revealed through seismic anisotropy. Tectonophysics, 2021, 821, 229133.	2.2	4
5	Early earthquake detection capabilities of different types of future-generation gravity gradiometers. Geophysical Journal International, 2020, 224, 533-542.	2.4	5
6	Modelling capsizing icebergs in the open ocean. Geophysical Journal International, 2020, 223, 1265-1287.	2.4	5
7	Seismology and Environment. Encyclopedia of Earth Sciences Series, 2020, , 1-8.	0.1	1
8	Large-scale flow of Indian Ocean asthenosphere driven by RÃ©union plume. Nature Geoscience, 2019, 12, 1043-1049.	12.9	29
9	Comment on â€œEarthquake-induced prompt gravity signals identified in dense array data in Japanâ€• by Kimura et al.. Earth, Planets and Space, 2019, 71, .	2.5	3
10	Monitoring Greenland ice sheet buoyancy-driven calving discharge using glacial earthquakes. Annals of Glaciology, 2019, 60, 75-95.	1.4	17
11	Evidence of reactivation of a hydrothermal system from seismic anisotropy changes. Nature Communications, 2019, 10, 5278.	12.8	11
12	Normal mode simulation of prompt elastogravity signals induced by an earthquake rupture. Geophysical Journal International, 2019, 216, 935-947.	2.4	20
13	Joint inversion of the first overtone and fundamental mode for deep imaging at the Valhall oil field using ambient noise. Geophysical Journal International, 2018, 214, 122-132.	2.4	24
14	Earthquake Early Warning Using Future Generation Gravity Strainmeters. Journal of Geophysical Research: Solid Earth, 2018, 123, 10,889.	3.4	19
15	Numerical Modeling of Iceberg Capsizing Responsible for Glacial Earthquakes. Journal of Geophysical Research F: Earth Surface, 2018, 123, 3013-3033.	2.8	7
16	Multidisciplinary Constraints on the Abundance of Diamond and Eclogite in the Cratonic Lithosphere. Geochemistry, Geophysics, Geosystems, 2018, 19, 2062-2086.	2.5	49
17	SKS splitting in the Western Indian Ocean from land and seafloor seismometers: Plume, plate and ridge signatures. Earth and Planetary Science Letters, 2018, 498, 169-184.	4.4	17
18	Radial anisotropy in Valhall: ambient noise-based studies of Scholte and Love waves. Geophysical Journal International, 2017, 208, 1524-1539.	2.4	17

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19	Quantifying seismic anisotropy induced by small-scale chemical heterogeneities. Geophysical Journal International, 2017, 211, 1585-1600.	2.4	12
20	Monitoring of seismic anisotropy at the time of the 2008 Iwate-Miyagi (Japan) earthquake. Geophysical Journal International, 2017, 211, 483-497.	2.4	9
21	Anisotropic Tomography Around La RÃ©union Island From Rayleigh Waves. Journal of Geophysical Research: Solid Earth, 2017, 122, 9132-9148.	3.4	35
22	Observations and modeling of the elastogravity signals preceding direct seismic waves. Science, 2017, 358, 1164-1168.	12.6	58
23	Subâ€sample time shift and horizontal displacement measurements using phaseâ€correlation method in timeâ€lapse seismic. Geophysical Prospecting, 2017, 65, 407-425.	1.9	7
24	Anisotropic tomography of the European lithospheric structure from surface wave studies. Geochemistry, Geophysics, Geosystems, 2016, 17, 2015-2033.	2.5	18
25	Complex force history of a calvingâ€generated glacial earthquake derived from broadband seismic inversion. Geophysical Research Letters, 2016, 43, 1055-1065.	4.0	24
26	Imaging the lithospheric structure beneath the Indian continent. Journal of Geophysical Research: Solid Earth, 2016, 121, 7450-7468.	3.4	78
27	Prompt gravity signal induced by the 2011 Tohoku-Oki earthquake. Nature Communications, 2016, 7, 13349.	12.8	61
28	Radial anisotropy in Valhall from ambient noise surface wave tomography of Scholte and Love wave. , 2015, , .		0
29	Intrinsic versus extrinsic seismic anisotropy: Surface wave phase velocity inversion. Comptes Rendus - Geoscience, 2015, 347, 66-76.	1.2	3
30	Deep Earth Structure - Upper Mantle Structure: Global Isotropic and Anisotropic Elastic Tomography. , 2015, , 613-639.		5
31	Transient gravity perturbations induced by earthquake rupture. Geophysical Journal International, 2015, 201, 1416-1425.	2.4	47
32	Influence of seismic anisotropy on the cross correlation tensor: numerical investigations. Geophysical Journal International, 2015, 201, 595-604.	2.4	8
33	The Aftershock Sequence of the 2010MwÂ6.3 Rigan Earthquake in Southeast Iran: Further Evidence of a Hidden Fault in the Southern Lut Block. Bulletin of the Seismological Society of America, 2015, 105, 3114-3120.	2.3	0
34	Interpreting Radial Anisotropy in Global and Regional Tomographic Models. , 2015, , 105-144.		24
35	Is there seismic attenuation in the mantle?. Earth and Planetary Science Letters, 2014, 388, 257-264.	4.4	27
36	Oceanic lithosphere-asthenosphere boundary from surface wave dispersion data. Journal of Geophysical Research: Solid Earth, 2014, 119, 1079-1093.	3.4	98

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37	Insights from ScSâ€“S measurements on deep mantle attenuation. Earth and Planetary Science Letters, 2013, 374, 101-110.	4.4	12
38	Residual homogenization for seismic forward and inverse problems in layered media. Geophysical Journal International, 2013, 194, 470-487.	2.4	37
39	The GEOSCOPE Program: Progress and Challenges during the Past 30 Years. Seismological Research Letters, 2013, 84, 250-250.	1.9	1
40	Intrinsic versus extrinsic seismic anisotropy: The radial anisotropy in reference Earth models. Geophysical Research Letters, 2013, 40, 4284-4288.	4.0	45
41	A Bayesian approach to infer radial models of temperature and anisotropy in the transition zone from surface wave dispersion curves. Geophysical Journal International, 2013, 195, 1165-1183.	2.4	24
42	Azimuthal anisotropy at Valhall: The Helmholtz equation approach. Geophysical Research Letters, 2013, 40, 2636-2641.	4.0	27
43	Time-reversal method and cross-correlation techniques by normal mode theory: a three-point problem. Geophysical Journal International, 2012, 191, 637-652.	2.4	12
44	RegSEM: a versatile code based on the spectral element method to compute seismic wave propagation at the regional scale. Geophysical Journal International, 2012, 188, 1203-1220.	2.4	64
45	Earth's free oscillations recorded by free-fall OBS ocean-bottom seismometers at the Lesser Antilles subduction zone. Geophysical Research Letters, 2011, 38, n/a-n/a.	4.0	9
46	The GEOSCOPE Program: Progress and Challenges during the Past 30 Years. Seismological Research Letters, 2010, 81, 427-452.	1.9	22
47	Anisotropic stratification beneath Africa from joint inversion of SKS and P receiver functions. Journal of Geophysical Research, 2010, 115, .	3.3	20
48	Heterogeneity and anisotropy of the lithosphere of SE Tibet from surface wave array tomography. Journal of Geophysical Research, 2010, 115, .	3.3	254
49	Anisotropic structures of the upper mantle beneath the northern Philippine Sea region from Rayleigh and Love wave tomography. Physics of the Earth and Planetary Interiors, 2010, 183, 33-43.	1.9	22
50	Global Surface Wave Tomography Using Seismic Hum. Science, 2009, 326, 112-112.	12.6	138
51	Reliability of mantle tomography models assessed by spectral element simulation. Geophysical Journal International, 2009, 177, 125-144.	2.4	21
52	Reply to Battaglia and Cayol, 2009. Earth and Planetary Science Letters, 2009, 287, 288-291.	4.4	0
53	Earthquakes in subduction zones: A multidisciplinary approach. Physics of the Earth and Planetary Interiors, 2009, 175, 1-2.	1.9	0
54	Identifying global seismic anisotropy patterns by correlating shear-wave splitting and surface-wave data. Physics of the Earth and Planetary Interiors, 2009, 176, 198-212.	1.9	139

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55	Numerical assessment of the effects of topography and crustal thickness on martian seismograms using a coupled modal solutionâ€“spectral element method. Icarus, 2008, 196, 78-89.	2.5	16
56	SPICE benchmark for global tomographic methods. Geophysical Journal International, 2008, 175, 598-616.	2.4	13
57	Time-reversal seismic-source imaging and moment-tensor inversion. Geophysical Journal International, 2008, 175, 686-688.	2.4	46
58	Normal modes of the Earth. Journal of Physics: Conference Series, 2008, 118, 012004.	0.4	8
59	Upper mantle structure of shear-waves velocities and stratification of anisotropy in the Afar Hotspot region. Tectonophysics, 2008, 462, 164-177.	2.2	51
60	Time reversal location of glacial earthquakes. Journal of Geophysical Research, 2008, 113, .	3.3	63
61	Deep Earth Structure â€“ Upper Mantle Structure: Global Isotropic and Anisotropic Elastic Tomography. , 2007, , 559-589.		16
62	Hidden Dykes detected on Ultra Long Period seismic signals at Piton de la Fournaise volcano?. Earth and Planetary Science Letters, 2007, 261, 1-8.	4.4	10
63	Mantle upwellings and convective instabilities revealed by seismic tomography and helium isotope geochemistry beneath eastern Africa. Geophysical Research Letters, 2007, 34, .	4.0	44
64	Deep Earth Structure â€“ Upper Mantle Structure: Global Isotropic and Anisotropic Elastic Tomography. , 2007, , 559-589.		17
65	Time-reversal imaging of seismic sources and application to the great Sumatra earthquake. Geophysical Research Letters, 2006, 33, .	4.0	156
66	Anisotropic structure of the African upper mantle from Rayleigh and Love wave tomography. Physics of the Earth and Planetary Interiors, 2006, 155, 48-62.	1.9	125
67	Surface wave focusing effects: Numerical modeling and statistical observations. Physics of the Earth and Planetary Interiors, 2006, 155, 191-200.	1.9	5
68	Computation of Large Anisotropic Seismic Heterogeneities (CLASH). Geophysical Journal International, 2006, 165, 447-468.	2.4	30
69	Azores hotspot signature in the upper mantle. Journal of Volcanology and Geothermal Research, 2006, 156, 23-34.	2.1	62
70	Coupling the spectral element method with a modal solution for elastic wave propagation in global earth models. Geophysical Journal International, 2003, 152, 34-67.	2.4	119
71	Surface wave higher-mode phase velocity measurements using a roller-coaster-type algorithm. Geophysical Journal International, 2003, 155, 289-307.	2.4	40
72	Comment on â€œShear-wave splitting to test mantle deformation models around Hawaiiâ€•by Kristoffer T. Walker, GÃ¶tz H. R. Bokelmann, and Simon L. Klemperer. Geophysical Research Letters, 2003, 30, .	4.0	7

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73	The unique dynamics of the Pacific Hemisphere mantle and its signature on seismic anisotropy. Earth and Planetary Science Letters, 2003, 208, 219-233.	4.4	78
74	Upper mantle low anisotropy channels below the Pacific Plate. Earth and Planetary Science Letters, 2002, 202, 263-274.	4.4	98
75	A new coupled spectral element and modal solution method for global seismology: A first application to the scattering induced by a plume-like anomaly. Geophysical Research Letters, 2002, 29, 32-1-32-4.	4.0	17
76	Seismic Anisotropy and Global Geodynamics. Reviews in Mineralogy and Geochemistry, 2002, 51, 353-385.	4.8	28
77	Multimode Rayleigh wave inversion for heterogeneity and azimuthal anisotropy of the Australian upper mantle. Geophysical Journal International, 2002, 151, 738-754.	2.4	172
78	Seismic Anisotropy Tomography. , 2002, , 191-232.		2
79	The MBARI Margin seismology experiment: A prototype seafloor observatory. Developments in Marine Technology, 2002, , 93-110.	0.5	4
80	Geophysical ocean bottom observatories or temporary portable networks?. Developments in Marine Technology, 2002, , 59-81.	0.5	2
81	MOISE: A Prototype Multiparameter Ocean-Bottom Station. Bulletin of the Seismological Society of America, 2001, 91, 885-892.	2.3	20
82	GEOLOGY: Interactions Between Ridges and Plumes. Science, 2001, 294, 1472-1473.	12.6	31
83	Effect of a plume on long period surface waves computed with normal modes coupling. Physics of the Earth and Planetary Interiors, 2000, 119, 57-74.	1.9	17
84	How to relate body wave and surface wave anisotropy?. Journal of Geophysical Research, 2000, 105, 19015-19027.	3.3	97
85	On the Presence of Liquid in Earth's Inner Core. Science, 2000, 287, 2471-2474.	12.6	125
86	Tilt signals derived from a GEOSCOPE VBB Station on the Piton de la Fournaise Volcano. Geophysical Research Letters, 2000, 27, 605-608.	4.0	26
87	Anisotropy of iron in the Earth's inner core. Nature, 1999, 400, 629-629.	27.8	4
88	The GEOSCOPE program: its data center. Physics of the Earth and Planetary Interiors, 1999, 113, 25-43.	1.9	12
89	Teleseismic travel time residuals in North America and anelasticity of the asthenosphere. Physics of the Earth and Planetary Interiors, 1999, 116, 93-103.	1.9	21
90	The Snake River Plain Experiment revisited. Relationships between aFarallonplate fragment and the transition zone. Geophysical Research Letters, 1999, 26, 2673-2676.	4.0	10

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91	Global-scale analysis of the mantlePdsphases. Journal of Geophysical Research, 1999, 104, 20203-20219.	3.3	153
92	Where Can Seismic Anisotropy Be Detected in the Earthâ€™s Mantle? In Boundary Layers.... Pure and Applied Geophysics, 1998, 151, 223.	1.9	124
93	Age-dependent Large-scale Fabric of the Mantle Lithosphere as Derived from Surface-wave Velocity Anisotropy. Pure and Applied Geophysics, 1998, 151, 257.	1.9	55
94	The spectrum of tomographic earth models. Geophysical Journal International, 1998, 133, 783-788.	2.4	35
95	Upper-mantle seismic discontinuities in a subduction zone (Japan) investigated from P to S converted waves. Physics of the Earth and Planetary Interiors, 1998, 108, 61-80.	1.9	13
96	Anisotropic tomography of the Atlantic Ocean from Rayleigh surface waves. Physics of the Earth and Planetary Interiors, 1998, 106, 257-273.	1.9	32
97	Towards multiscalar and multiparameter networks for the next century: The French efforts. Physics of the Earth and Planetary Interiors, 1998, 108, 155-174.	1.9	21
98	MOISE: A pilot experiment towards long term sea-floor geophysical observatories. Earth, Planets and Space, 1998, 50, 927-937.	2.5	39
99	Seismic experiment paves way for long-term seafloor observatories. Eos, 1998, 79, 301-301.	0.1	9
100	Confrontation of mantle seismic anisotropy with two extreme models of strain, in central Asia. Geophysical Research Letters, 1998, 25, 1447-1450.	4.0	21
101	Seismic evidence of flow at the base of the upper mantle. Geophysical Research Letters, 1998, 25, 1995-1998.	4.0	46
102	Phase velocity structure from Rayleigh and Love waves in Tibet and its neighboring regions. Journal of Geophysical Research, 1998, 103, 21215-21232.	3.3	77
103	Where Can Seismic Anisotropy Be Detected in the Earthâ€™s Mantle? In Boundary Layersâ€¦. , 1998, , 223-256.		5
104	Age-dependent Large-scale Fabric of the Mantle Lithosphere as Derived from Surface-wave Velocity Anisotropy. , 1998, , 257-280.		10
105	Self-consistent retrieval of source parameters using mantle waves. Bulletin of the Seismological Society of America, 1998, 88, 995-1002.	2.3	3
106	Correction to â€œTime evolution of broadband seismic noise during the French Pilot Experiment OFM/SISMOBSâ€. Geophysical Research Letters, 1997, 24, 493-493.	4.0	3
107	Evidence for a stagnant plume in the transition zone?. Geophysical Research Letters, 1997, 24, 1007-1010.	4.0	45
108	Seismic anisotropy beneath Tibet: evidence for eastward extrusion of the Tibetan lithosphere?. Earth and Planetary Science Letters, 1996, 140, 83-96.	4.4	66

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109	The three-dimensional seismological model a priori constrained: Confrontation with seismic data. Journal of Geophysical Research, 1996, 101, 8457-8472.	3.3	81
110	Shear wave splitting in the mantlePsphases. Geophysical Research Letters, 1996, 23, 2449-2452.	4.0	67
111	Time evolution of broadband seismic noise during the French Pilot Experiment OFM/SISMOBS. Geophysical Research Letters, 1996, 23, 2995-2998.	4.0	33
112	How to reconcile body-wave and normal-mode reference earth models. Geophysical Journal International, 1996, 125, 229-248.	2.4	409
113	Can seismology tell us anything about convection in the mantle?. Reviews of Geophysics, 1994, 32, 115.	23.0	130
114	Tomography of the transition zone from the inversion of higher-mode surface waves. Physics of the Earth and Planetary Interiors, 1994, 86, 99-115.	1.9	26
115	Antarctica II: Upper-mantle structure from velocities and anisotropy. Physics of the Earth and Planetary Interiors, 1994, 84, 33-57.	1.9	67
116	The French Pilot Experiment OFM-SISMOBS: first scientific results on noise level and event detection. Physics of the Earth and Planetary Interiors, 1994, 84, 321-336.	1.9	58
117	Global correlations of mid-ocean-ridge basalt chemistry with seismic tomographic images. Nature, 1993, 364, 225-228.	27.8	27
118	An inverse technique for retrieving higher mode phase velocity and mantle structure. Geophysical Journal International, 1993, 113, 669-683.	2.4	61
119	Degrees 2, 4, 6 inferred from seismic tomography. Geophysical Research Letters, 1993, 20, 631-634.	4.0	27
120	Tomographic study of upper mantle atttenuation in the Pacific Ocean. Geophysical Research Letters, 1993, 20, 663-666.	4.0	21
121	Global upper mantle tomography of seismic velocities and anisotropies. Journal of Geophysical Research, 1991, 96, 20337-20351.	3.3	455
122	3-D upper mantle shear velocity and attenuation from fundamental mode free oscillation data. Geophysical Journal International, 1990, 101, 61-80.	2.4	65
123	Reply to comment by J. Trampert. Geophysical Journal International, 1990, 103, 757-758.	2.4	0
124	Global anisotropy in the upper mantle inferred from the regionalization of phase velocities. Journal of Geophysical Research, 1990, 95, 4797-4819.	3.3	202
125	Comparison of Iterative Back-Projection Inversion and Generalized Inversion Without Blocks: Case Studies In Attenuation Tomography. Geophysical Journal International, 1989, 97, 19-29.	2.4	22
126	Constrained reference mantle model. Physics of the Earth and Planetary Interiors, 1989, 58, 205-227.	1.9	80

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127	Anisotropy of the African continent inferred from surface waves. Physics of the Earth and Planetary Interiors, 1989, 58, 61-81.	1.9	45
128	Petrological constraints on seismic anisotropy. Physics of the Earth and Planetary Interiors, 1989, 54, 82-105.	1.9	127
129	Vectorial tomography--I. Theory. Geophysical Journal International, 1988, 94, 295-307.	2.4	61
130	Vectorial tomography--II. Application to the Indian Ocean. Geophysical Journal International, 1988, 94, 309-344.	2.4	133
131	Phase velocity distribution in the Indian Ocean and Indonesian region inferred from GEOSCOPE records. Geophysical Research Letters, 1987, 14, 343-346.	4.0	9
132	A simple method for inverting the azimuthal anisotropy of surface waves. Journal of Geophysical Research, 1986, 91, 511-520.	3.3	311
133	3â€dimensional structure of the Indian Ocean inferred from long period surface waves. Geophysical Research Letters, 1986, 13, 315-318.	4.0	70
134	Several location methods for underwater shots in the Gulf of Genoa (Western Mediterranean): Structural implications. Tectonophysics, 1986, 128, 357-379.	2.2	12
135	Seismic anisotropy of the Pacific Ocean inferred from long-period surface waves dispersion. Physics of the Earth and Planetary Interiors, 1985, 38, 28-50.	1.9	42
136	Variation with age of the deep structure of the Pacific Ocean inferred from very longâ€period Rayleigh wave dispersion. Geophysical Research Letters, 1983, 10, 273-276.	4.0	19
137	Upper mantle heterogeneities in Africa deduced from Rayleigh wave dispersion. Physics of the Earth and Planetary Interiors, 1983, 32, 218-225.	1.9	15
138	Investigation of upper mantle structure under young regions of the southeast Pacific using long-period Rayleigh waves. Physics of the Earth and Planetary Interiors, 1981, 27, 206-222.	1.9	42