

# Jean Paul Montagner

## List of Publications by Year in descending order

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138  
papers

6,696  
citations

57631

44  
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69108

77  
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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. <i>Earth and Planetary Science Letters</i> , 2022, 593, 117654.	1.8	21
2	Seismology and Environment. <i>Encyclopedia of Earth Sciences Series</i> , 2021, , 1655-1661.	0.1	0
3	Multi-Mode Waveform Tomography of the Indian Ocean Upper and Mid-Mantle Around the Réunion Hotspot. <i>Journal of Geophysical Research: Solid Earth</i> , 2021, 126, e2020JB021490.	1.4	13
4	The mantle transition zone dynamics as revealed through seismic anisotropy. <i>Tectonophysics</i> , 2021, 821, 229133.	0.9	4
5	Early earthquake detection capabilities of different types of future-generation gravity gradiometers. <i>Geophysical Journal International</i> , 2020, 224, 533-542.	1.0	5
6	Modelling capsizing icebergs in the open ocean. <i>Geophysical Journal International</i> , 2020, 223, 1265-1287.	1.0	5
7	Seismology and Environment. <i>Encyclopedia of Earth Sciences Series</i> , 2020, , 1-8.	0.1	1
8	Large-scale flow of Indian Ocean asthenosphere driven by Réunion plume. <i>Nature Geoscience</i> , 2019, 12, 1043-1049.	5.4	29
9	Comment on "Earthquake-induced prompt gravity signals identified in dense array data in Japan" by Kimura et al.. <i>Earth, Planets and Space</i> , 2019, 71, .	0.9	3
10	Monitoring Greenland ice sheet buoyancy-driven calving discharge using glacial earthquakes. <i>Annals of Glaciology</i> , 2019, 60, 75-95.	2.8	17
11	Evidence of reactivation of a hydrothermal system from seismic anisotropy changes. <i>Nature Communications</i> , 2019, 10, 5278.	5.8	11
12	Normal mode simulation of prompt elastogravity signals induced by an earthquake rupture. <i>Geophysical Journal International</i> , 2019, 216, 935-947.	1.0	20
13	Joint inversion of the first overtone and fundamental mode for deep imaging at the Valhall oil field using ambient noise. <i>Geophysical Journal International</i> , 2018, 214, 122-132.	1.0	24
14	Earthquake Early Warning Using Future Generation Gravity Strainmeters. <i>Journal of Geophysical Research: Solid Earth</i> , 2018, 123, 10,889.	1.4	19
15	Numerical Modeling of Iceberg Capsizing Responsible for Glacial Earthquakes. <i>Journal of Geophysical Research F: Earth Surface</i> , 2018, 123, 3013-3033.	1.0	7
16	Multidisciplinary Constraints on the Abundance of Diamond and Eclogite in the Cratonic Lithosphere. <i>Geochemistry, Geophysics, Geosystems</i> , 2018, 19, 2062-2086.	1.0	49
17	SKS splitting in the Western Indian Ocean from land and seafloor seismometers: Plume, plate and ridge signatures. <i>Earth and Planetary Science Letters</i> , 2018, 498, 169-184.	1.8	17
18	Radial anisotropy in Valhall: ambient noise-based studies of Scholte and Love waves. <i>Geophysical Journal International</i> , 2017, 208, 1524-1539.	1.0	17

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19	Quantifying seismic anisotropy induced by small-scale chemical heterogeneities. <i>Geophysical Journal International</i> , 2017, 211, 1585-1600.	1.0	12
20	Monitoring of seismic anisotropy at the time of the 2008 Iwate-Miyagi (Japan) earthquake. <i>Geophysical Journal International</i> , 2017, 211, 483-497.	1.0	9
21	Anisotropic Tomography Around La Réunion Island From Rayleigh Waves. <i>Journal of Geophysical Research: Solid Earth</i> , 2017, 122, 9132-9148.	1.4	35
22	Observations and modeling of the elastogravity signals preceding direct seismic waves. <i>Science</i> , 2017, 358, 1164-1168.	6.0	58
23	Sub-sample time shift and horizontal displacement measurements using phase-correlation method in time-lapse seismic. <i>Geophysical Prospecting</i> , 2017, 65, 407-425.	1.0	7
24	Anisotropic tomography of the European lithospheric structure from surface wave studies. <i>Geochemistry, Geophysics, Geosystems</i> , 2016, 17, 2015-2033.	1.0	18
25	Complex force history of a calving-generated glacial earthquake derived from broadband seismic inversion. <i>Geophysical Research Letters</i> , 2016, 43, 1055-1065.	1.5	24
26	Imaging the lithospheric structure beneath the Indian continent. <i>Journal of Geophysical Research: Solid Earth</i> , 2016, 121, 7450-7468.	1.4	78
27	Prompt gravity signal induced by the 2011 Tohoku-Oki earthquake. <i>Nature Communications</i> , 2016, 7, 13349.	5.8	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. <i>Comptes Rendus - Geoscience</i> , 2015, 347, 66-76.	0.4	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. <i>Geophysical Journal International</i> , 2015, 201, 1416-1425.	1.0	47
32	Influence of seismic anisotropy on the cross correlation tensor: numerical investigations. <i>Geophysical Journal International</i> , 2015, 201, 595-604.	1.0	8
33	The Aftershock Sequence of the 2010Mw6.3 Rigan Earthquake in Southeast Iran: Further Evidence of a Hidden Fault in the Southern Lut Block. <i>Bulletin of the Seismological Society of America</i> , 2015, 105, 3114-3120.	1.1	0
34	Interpreting Radial Anisotropy in Global and Regional Tomographic Models. , 2015, , 105-144.		24
35	Is there seismic attenuation in the mantle?. <i>Earth and Planetary Science Letters</i> , 2014, 388, 257-264.	1.8	27
36	Oceanic lithosphere-asthenosphere boundary from surface wave dispersion data. <i>Journal of Geophysical Research: Solid Earth</i> , 2014, 119, 1079-1093.	1.4	98

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37	Insights from ScS measurements on deep mantle attenuation. Earth and Planetary Science Letters, 2013, 374, 101-110.	1.8	12
38	Residual homogenization for seismic forward and inverse problems in layered media. Geophysical Journal International, 2013, 194, 470-487.	1.0	37
39	The GEOSCOPE Program: Progress and Challenges during the Past 30 Years. Seismological Research Letters, 2013, 84, 250-250.	0.8	1
40	Intrinsic versus extrinsic seismic anisotropy: The radial anisotropy in reference Earth models. Geophysical Research Letters, 2013, 40, 4284-4288.	1.5	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.	1.0	24
42	Azimuthal anisotropy at Valhall: The Helmholtz equation approach. Geophysical Research Letters, 2013, 40, 2636-2641.	1.5	27
43	Time-reversal method and cross-correlation techniques by normal mode theory: a three-point problem. Geophysical Journal International, 2012, 191, 637-652.	1.0	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.	1.0	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.	1.5	9
46	The GEOSCOPE Program: Progress and Challenges during the Past 30 Years. Seismological Research Letters, 2010, 81, 427-452.	0.8	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.	0.7	22
50	Global Surface Wave Tomography Using Seismic Hum. Science, 2009, 326, 112-112.	6.0	138
51	Reliability of mantle tomography models assessed by spectral element simulation. Geophysical Journal International, 2009, 177, 125-144.	1.0	21
52	Reply to Battaglia and Cayol, 2009. Earth and Planetary Science Letters, 2009, 287, 288-291.	1.8	0
53	Earthquakes in subduction zones: A multidisciplinary approach. Physics of the Earth and Planetary Interiors, 2009, 175, 1-2.	0.7	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.	0.7	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. <i>Icarus</i> , 2008, 196, 78-89.	1.1	16
56	SPICE benchmark for global tomographic methods. <i>Geophysical Journal International</i> , 2008, 175, 598-616.	1.0	13
57	Time-reversal seismic-source imaging and moment-tensor inversion. <i>Geophysical Journal International</i> , 2008, 175, 686-688.	1.0	46
58	Normal modes of the Earth. <i>Journal of Physics: Conference Series</i> , 2008, 118, 012004.	0.3	8
59	Upper mantle structure of shear-waves velocities and stratification of anisotropy in the Afar Hotspot region. <i>Tectonophysics</i> , 2008, 462, 164-177.	0.9	51
60	Time reversal location of glacial earthquakes. <i>Journal of Geophysical Research</i> , 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?. <i>Earth and Planetary Science Letters</i> , 2007, 261, 1-8.	1.8	10
63	Mantle upwellings and convective instabilities revealed by seismic tomography and helium isotope geochemistry beneath eastern Africa. <i>Geophysical Research Letters</i> , 2007, 34, .	1.5	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. <i>Geophysical Research Letters</i> , 2006, 33, .	1.5	156
66	Anisotropic structure of the African upper mantle from Rayleigh and Love wave tomography. <i>Physics of the Earth and Planetary Interiors</i> , 2006, 155, 48-62.	0.7	125
67	Surface wave focusing effects: Numerical modeling and statistical observations. <i>Physics of the Earth and Planetary Interiors</i> , 2006, 155, 191-200.	0.7	5
68	Computation of Large Anisotropic Seismic Heterogeneities (CLASH). <i>Geophysical Journal International</i> , 2006, 165, 447-468.	1.0	30
69	Azores hotspot signature in the upper mantle. <i>Journal of Volcanology and Geothermal Research</i> , 2006, 156, 23-34.	0.8	62
70	Coupling the spectral element method with a modal solution for elastic wave propagation in global earth models. <i>Geophysical Journal International</i> , 2003, 152, 34-67.	1.0	119
71	Surface wave higher-mode phase velocity measurements using a roller-coaster-type algorithm. <i>Geophysical Journal International</i> , 2003, 155, 289-307.	1.0	40
72	Comment on â€œShear-wave splitting to test mantle deformation models around Hawaiiâ€• by Kristoffer T. Walker, GÃ¼ntz H. R. Bokelmann, and Simon L. Klemperer. <i>Geophysical Research Letters</i> , 2003, 30, .	1.5	7

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73	The unique dynamics of the Pacific Hemisphere mantle and its signature on seismic anisotropy. <i>Earth and Planetary Science Letters</i> , 2003, 208, 219-233.	1.8	78
74	Upper mantle low anisotropy channels below the Pacific Plate. <i>Earth and Planetary Science Letters</i> , 2002, 202, 263-274.	1.8	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. <i>Geophysical Research Letters</i> , 2002, 29, 32-1-32-4.	1.5	17
76	Seismic Anisotropy and Global Geodynamics. <i>Reviews in Mineralogy and Geochemistry</i> , 2002, 51, 353-385.	2.2	28
77	Multimode Rayleigh wave inversion for heterogeneity and azimuthal anisotropy of the Australian upper mantle. <i>Geophysical Journal International</i> , 2002, 151, 738-754.	1.0	172
78	Seismic Anisotropy Tomography. , 2002, , 191-232.		2
79	The MBARI Margin seismology experiment: A prototype seafloor observatory. <i>Developments in Marine Technology</i> , 2002, , 93-110.	0.5	4
80	Geophysical ocean bottom observatories or temporary portable networks?. <i>Developments in Marine Technology</i> , 2002, , 59-81.	0.5	2
81	MOISE: A Prototype Multiparameter Ocean-Bottom Station. <i>Bulletin of the Seismological Society of America</i> , 2001, 91, 885-892.	1.1	20
82	GEOLOGY: Interactions Between Ridges and Plumes. <i>Science</i> , 2001, 294, 1472-1473.	6.0	31
83	Effect of a plume on long period surface waves computed with normal modes coupling. <i>Physics of the Earth and Planetary Interiors</i> , 2000, 119, 57-74.	0.7	17
84	How to relate body wave and surface wave anisotropy?. <i>Journal of Geophysical Research</i> , 2000, 105, 19015-19027.	3.3	97
85	On the Presence of Liquid in Earth's Inner Core. <i>Science</i> , 2000, 287, 2471-2474.	6.0	125
86	Tilt signals derived from a GEOSCOPE VBB Station on the Piton de la Fournaise Volcano. <i>Geophysical Research Letters</i> , 2000, 27, 605-608.	1.5	26
87	Anisotropy of iron in the Earth's inner core. <i>Nature</i> , 1999, 400, 629-629.	13.7	4
88	The GEOSCOPE program: its data center. <i>Physics of the Earth and Planetary Interiors</i> , 1999, 113, 25-43.	0.7	12
89	Teleseismic travel time residuals in North America and anelasticity of the asthenosphere. <i>Physics of the Earth and Planetary Interiors</i> , 1999, 116, 93-103.	0.7	21
90	The Snake River Plain Experiment revisited. Relationships between a Farallon plate fragment and the transition zone. <i>Geophysical Research Letters</i> , 1999, 26, 2673-2676.	1.5	10

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91	Global-scale analysis of the mantle Pdsphases. Journal of Geophysical Research, 1999, 104, 20203-20219.	3.3	153
92	Where Can Seismic Anisotropy Be Detected in the Earth's Mantle? In Boundary Layers.... Pure and Applied Geophysics, 1998, 151, 223.	0.8	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.	0.8	55
94	The spectrum of tomographic earth models. Geophysical Journal International, 1998, 133, 783-788.	1.0	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.	0.7	13
96	Anisotropic tomography of the Atlantic Ocean from Rayleigh surface waves. Physics of the Earth and Planetary Interiors, 1998, 106, 257-273.	0.7	32
97	Towards multiscale and multiparameter networks for the next century: The French efforts. Physics of the Earth and Planetary Interiors, 1998, 108, 155-174.	0.7	21
98	MOISE: A pilot experiment towards long term sea-floor geophysical observatories. Earth, Planets and Space, 1998, 50, 927-937.	0.9	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.	1.5	21
101	Seismic evidence of flow at the base of the upper mantle. Geophysical Research Letters, 1998, 25, 1995-1998.	1.5	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 Earth's Mantle? In Boundary Layers   . , 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.	1.1	3
106	Correction to "Time evolution of broadband seismic noise during the French Pilot Experiment OFM/SISMOBS" Geophysical Research Letters, 1997, 24, 493-493.	1.5	3
107	Evidence for a stagnant plume in the transition zone?. Geophysical Research Letters, 1997, 24, 1007-1010.	1.5	45
108	Seismic anisotropy beneath Tibet: evidence for eastward extrusion of the Tibetan lithosphere?. Earth and Planetary Science Letters, 1996, 140, 83-96.	1.8	66

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109	The three-dimensional seismological model a priori constrained: Confrontation with seismic data. <i>Journal of Geophysical Research</i> , 1996, 101, 8457-8472.	3.3	81
110	Shear wave splitting in the mantle Psphases. <i>Geophysical Research Letters</i> , 1996, 23, 2449-2452.	1.5	67
111	Time evolution of broadband seismic noise during the French Pilot Experiment OFM/SISMOBS. <i>Geophysical Research Letters</i> , 1996, 23, 2995-2998.	1.5	33
112	How to reconcile body-wave and normal-mode reference earth models. <i>Geophysical Journal International</i> , 1996, 125, 229-248.	1.0	409
113	Can seismology tell us anything about convection in the mantle?. <i>Reviews of Geophysics</i> , 1994, 32, 115.	9.0	130
114	Tomography of the transition zone from the inversion of higher-mode surface waves. <i>Physics of the Earth and Planetary Interiors</i> , 1994, 86, 99-115.	0.7	26
115	Antarctica II: Upper-mantle structure from velocities and anisotropy. <i>Physics of the Earth and Planetary Interiors</i> , 1994, 84, 33-57.	0.7	67
116	The French Pilot Experiment OFM-SISMOBS: first scientific results on noise level and event detection. <i>Physics of the Earth and Planetary Interiors</i> , 1994, 84, 321-336.	0.7	58
117	Global correlations of mid-ocean-ridge basalt chemistry with seismic tomographic images. <i>Nature</i> , 1993, 364, 225-228.	13.7	27
118	An inverse technique for retrieving higher mode phase velocity and mantle structure. <i>Geophysical Journal International</i> , 1993, 113, 669-683.	1.0	61
119	Degrees 2, 4, 6 inferred from seismic tomography. <i>Geophysical Research Letters</i> , 1993, 20, 631-634.	1.5	27
120	Tomographic study of upper mantle attenuation in the Pacific Ocean. <i>Geophysical Research Letters</i> , 1993, 20, 663-666.	1.5	21
121	Global upper mantle tomography of seismic velocities and anisotropies. <i>Journal of Geophysical Research</i> , 1991, 96, 20337-20351.	3.3	455
122	3-D upper mantle shear velocity and attenuation from fundamental mode free oscillation data. <i>Geophysical Journal International</i> , 1990, 101, 61-80.	1.0	65
123	Reply to comment by J. Trampert. <i>Geophysical Journal International</i> , 1990, 103, 757-758.	1.0	0
124	Global anisotropy in the upper mantle inferred from the regionalization of phase velocities. <i>Journal of Geophysical Research</i> , 1990, 95, 4797-4819.	3.3	202
125	Comparison of Iterative Back-Projection Inversion and Generalized Inversion Without Blocks: Case Studies In Attenuation Tomography. <i>Geophysical Journal International</i> , 1989, 97, 19-29.	1.0	22
126	Constrained reference mantle model. <i>Physics of the Earth and Planetary Interiors</i> , 1989, 58, 205-227.	0.7	80



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127	Anisotropy of the African continent inferred from surface waves. <i>Physics of the Earth and Planetary Interiors</i> , 1989, 58, 61-81.	0.7	45
128	Petrological constraints on seismic anisotropy. <i>Physics of the Earth and Planetary Interiors</i> , 1989, 54, 82-105.	0.7	127
129	Vectorial tomography-I. Theory. <i>Geophysical Journal International</i> , 1988, 94, 295-307.	1.0	61
130	Vectorial tomography-II. Application to the Indian Ocean. <i>Geophysical Journal International</i> , 1988, 94, 309-344.	1.0	133
131	Phase velocity distribution in the Indian Ocean and Indonesian region inferred from GEOSCOPE records. <i>Geophysical Research Letters</i> , 1987, 14, 343-346.	1.5	9
132	A simple method for inverting the azimuthal anisotropy of surface waves. <i>Journal of Geophysical Research</i> , 1986, 91, 511-520.	3.3	311
133	3-dimensional structure of the Indian Ocean inferred from long period surface waves. <i>Geophysical Research Letters</i> , 1986, 13, 315-318.	1.5	70
134	Several location methods for underwater shots in the Gulf of Genoa (Western Mediterranean): Structural implications. <i>Tectonophysics</i> , 1986, 128, 357-379.	0.9	12
135	Seismic anisotropy of the Pacific Ocean inferred from long-period surface waves dispersion. <i>Physics of the Earth and Planetary Interiors</i> , 1985, 38, 28-50.	0.7	42
136	Variation with age of the deep structure of the Pacific Ocean inferred from very long-period Rayleigh wave dispersion. <i>Geophysical Research Letters</i> , 1983, 10, 273-276.	1.5	19
137	Upper mantle heterogeneities in Africa deduced from Rayleigh wave dispersion. <i>Physics of the Earth and Planetary Interiors</i> , 1983, 32, 218-225.	0.7	15
138	Investigation of upper mantle structure under young regions of the southeast Pacific using long-period Rayleigh waves. <i>Physics of the Earth and Planetary Interiors</i> , 1981, 27, 206-222.	0.7	42