Sebastien Chevrot

List of Publications by Year in Descending Order

84 papers	2,852 citations	31 h-index	51 g-index
88 ext. papers	3,164 ext. citations	3.3 avg, IF	5.28 L-index

#	Paper	IF	Citations
84	Passive imaging of collisional orogens: a review of a decade of geophysical studies in the Pyrénées. *Bulletin - Societie Geologique De France*, **2022**, 193, 1	2.3	1
83	Upper lithospheric transfer zones driving the non-cylindricity of the West-Pyrenean orogenic prism (Maulon hyperextended basin). *Journal of Structural Geology*, **2022**, 156, 104535	3	0
82	Geodynamic evolution of a wide plate boundary in the Western Mediterranean, near-field versus far-field interactions. *Bulletin - Societie Geologique De France*, **2021**, 192, 48	2.3	4
81	Upper mantle structure under the Zagros collision zone; insights from 3D teleseismic P-wave tomography. *Tectonophysics*, **2021**, 819, 229106	3.1	0
80	Mantle dynamics in the SE Tibetan Plateau revealed by teleseismic shear-wave splitting analysis. *Physics of the Earth and Planetary Interiors*, **2021**, 313, 106687	2.3	2
79	Seismicity patterns in southwestern France. *Comptes Rendus - Geoscience*, **2021**, 353, 1-26	1.4	3
78	Three-dimensional gravity anomaly data inversion in the Pyrenees using compressional seismic velocity model as structural similarity constraints. *Geophysical Journal International*, **2021**, 225, 1063-1085	2.6	6
77	Eikonal Tomography Using Coherent Surface Waves Extracted From Ambient Noise by Iterative Matched Filtering—Application to the Large-N Maupasacq Array. *Journal of Geophysical Research: Solid Earth*, **2020**, 125, e2020JB019363	3.6	4
76	On the validity of the planar wave approximation to compute synthetic seismograms of teleseismic body waves in a 3-D regional model. *Geophysical Journal International*, **2020**, 224, 2060-2076	2.6	4
75	Seismic imaging of a mid-crustal low-velocity layer beneath the northern coast of the South China Sea and its tectonic implications. *Physics of the Earth and Planetary Interiors*, **2020**, 308, 106573	2.3	6
74	On the validity of the eikonal equation for surface-wave phase-velocity tomography. *Geophysical Journal International*, **2020**, 223, 908-914	2.6	3
73	Probing depth and lateral variations of upper-mantle seismic anisotropy from full-waveform inversion of teleseismic body-waves. *Geophysical Journal International*, **2020**, 222, 352-387	2.6	9
72	Crustal-scale balanced cross-section and restorations of the Central Pyrenean belt (Nestes-Cinca transect): Highlighting the structural control of Variscan belt and Permian-Mesozoic rift systems on mountain building. *Tectonophysics*, **2019**, 764, 25-45	3.1	39
71	Deep structure of Pyrenees range (SW Europe) imaged by joint inversion of gravity and teleseismic delay time. *Geophysical Journal International*, **2018**, 214, 282-301	2.6	6
70	Absolute earthquake locations using 3-D versus 1-D velocity models below a local seismic network: example from the Pyrenees. *Geophysical Journal International*, **2018**, 212, 1806-1828	2.6	15
69	A three-dimensional model of the Pyrenees and their foreland basins from geological and gravimetric data. *Tectonophysics*, **2018**, 734-735, 16-32	3.1	21
68	Mapping the crustal structure beneath the eastern Pyrenees. *Tectonophysics*, **2018**, 744, 296-309	3.1	17

67	Broadband, short-period or geophone nodes? Quality assessment of Passive Seismic signals acquired during the Maupasacq experiment. *First Break*, **2018**, 36, 71-76	0.5	10
66	The non-cylindrical crustal architecture of the Pyrenees. *Scientific Reports*, **2018**, 8, 9591	4.9	57
65	Upper-mantle deformation beneath the Pyrenean domain inferred from SKS splitting in northern Spain and southern France. *Geophysical Journal International*, **2017**, 210, 898-910	2.6	4
64	A high-order 3-D spectral-element method for the forward modelling and inversion of gravimetric data□Application to the western Pyrenees. *Geophysical Journal International*, **2017**, ggx010	2.6	1
63	The deep roots of the western Pyrenees revealed by full waveform inversion of teleseismic P waves. *Geology*, **2016**, 44, 475-478	5	80
62	Three-dimensional full waveform inversion of short-period teleseismic wavefields based upon the SEM□DSM hybrid method. *Geophysical Journal International*, **2015**, 202, 811-827	2.6	48
61	Subduction and volcanism in the Iberia□North Africa collision zone from tomographic images of the upper mantle. *Tectonophysics*, **2015**, 663, 238-249	3.1	40
60	Observation of deep water microseisms in the North Atlantic Ocean using tide modulations. *Geophysical Research Letters*, **2015**, 42, 316-322	4.9	17
59	USArray shear wave splitting shows seismic anisotropy from both lithosphere and asthenosphere. *Geology*, **2015**, 43, 667-670	5	11
58	SI-Hex: a new catalogue of instrumental seismicity for metropolitan France. *Bulletin - Societie Geologique De France*, **2015**, 186, 3-19	2.3	61
57	The Pyrenean architecture as revealed by teleseismic P-to-S converted waves recorded along two dense transects. *Geophysical Journal International*, **2015**, 200, 1094-1105	2.6	45
56	High-resolution imaging of the Pyrenees and Massif Central from the data of the PYROPE and IBERARRAY portable array deployments. *Journal of Geophysical Research: Solid Earth*, **2014**, 119, 6399-6420	3.6	72
55	Ambient noise tomography of the Pyrenees and the surrounding regions: inversion for a 3-D Vs model in the presence of a very heterogeneous crust. *Geophysical Journal International*, **2014**, 199, 402-415	2.6	27
54	A Nonlinear Method to Estimate Source Parameters, Amplitude, and Travel Times of Teleseismic Body Waves. *Bulletin of the Seismological Society of America*, **2013**, 103, 268-282	2.3	6
53	A hybrid method to compute short-period synthetic seismograms of teleseismic body waves in a 3-D regional model. *Geophysical Journal International*, **2013**, 192, 230-247	2.6	56
52	Finite-frequency structural sensitivities of short-period compressional body waves. *Geophysical Journal International*, **2012**, 190, 522-540	2.6	16
51	Numerical modelling of the upper-mantle anisotropy beneath a migrating strike-slip plate boundary: the San Andreas Fault system. *Geophysical Journal International*, **2012**, 191, 436-458	2.6	14
50	Erratum to □Very Preliminary Reference Moon Model□by R.F. Garcia, J. Gagnepain-Beyneix, S. Chevrot, P. Lognonné□[Phys. Earth Planet. Inter. 188 (2011) 96□113]. *Physics of the Earth and Planetary Interiors*, **2012**, 202-203, 89-91	2.3	26

49	Optimized discrete wavelet transforms in the cubed sphere with the lifting scheme□mplications for global finite-frequency tomography. *Geophysical Journal International*, **2012**, no-no	2.6	5
48	Very preliminary reference Moon model. *Physics of the Earth and Planetary Interiors*, **2011**, 188, 96-113	2.3	172
47	An efficient and flexible approach to the calculation of three-dimensional full-wave Fr□het kernels for seismic tomography-I. Theory. *Geophysical Journal International*, **2011**, 185, 922-938	2.6	19
46	An efficient and flexible approach to the calculation of three-dimensional full-wave Fr□het kernels for seismic tomography-II. Numerical results. *Geophysical Journal International*, **2011**, 185, 939-954	2.6	16
45	High-resolution imaging of the deep anisotropic structure of the San Andreas Fault system beneath southern California. *Geophysical Journal International*, **2011**, 186, 418-446	2.6	31
44	A preliminary catalog of moment tensors for the Pyrenees. *Tectonophysics*, **2011**, 510, 239-251	3.1	50
43	How to make robust splitting measurements for single-station analysis and three-dimensional imaging of seismic anisotropy. *Geophysical Journal International*, **2010**, no-no	2.6	9
42	SHdiff-SVdiff splitting in an isotropic Earth. *Journal of Geophysical Research*, **2010**, 115,		26
41	Statistical study of seismic heterogeneities at the base of the mantle from PKP differential traveltimes. *Geophysical Journal International*, **2009**, 179, 1607-1616	2.6	11
40	Principles of vectorial tomography???the effects of model parametrization and regularization in tomographic imaging of seismic anisotropy. *Geophysical Journal International*, **2009**, 179, 1726-1736	2.6	11
39	A new tomographic image of the Pyrenean lithosphere from teleseismic data. *Tectonophysics*, **2008**, 460, 206-214	3.1	43
38	Simultaneous Inversion of Source Spectra, Attenuation Parameters, and Site Responses: Application to the Data of the French Accelerometric Network. *Bulletin of the Seismological Society of America*, **2008**, 98, 198-219	2.3	50
37	A systematic study of source time functions and moment tensors of intermediate and deep earthquakes. *Journal of Geophysical Research*, **2007**, 112,		18
36	Source locations of secondary microseisms in western Europe: Evidence for both coastal and pelagic sources. *Journal of Geophysical Research*, **2007**, 112,		59
35	Multiscale finite-frequency Rayleigh wave tomography of the Kaapvaal craton. *Geophysical Journal International*, **2007**, 169, 201-215	2.6	80
34	Differences between Archean and Proterozoic lithospheres: Assessment of the possible major role of thermal conductivity. *Geochemistry, Geophysics, Geosystems*, **2006**, 7, n/a-n/a	3.6	26
33	Statistical properties of seismic anisotropy predicted by upper mantle geodynamic models. *Journal of Geophysical Research*, **2006**, 111,		114
32	P-wave propagation in transversely isotropic media. *Physics of the Earth and Planetary Interiors*, **2006**, 156, 12-20	2.3	17

31	P-wave propagation in transversely isotropic media: II. Application to inner core anisotropy: Effects of data averaging, parametrization and a priori information. *Physics of the Earth and Planetary Interiors*, **2006**, 156, 21-40	2.3	28
30	A new global PKP data set to study Earth's core and deep mantle. *Physics of the Earth and Planetary Interiors*, **2006**, 159, 15-31	2.3	34
29	Finite-frequency vectorial tomography: a new method for high-resolution imaging of upper mantle anisotropy. *Geophysical Journal International*, **2006**, 165, 641-657	2.6	59
28	Traveltime sensitivity kernels for PKP phases in the mantle. *Physics of the Earth and Planetary Interiors*, **2005**, 153, 21-31	2.3	13
27	Analysis of the 2002 May earthquake sequence in the central Pyrenees, consequences for the evaluation of the seismic risk at Lourdes, France. *Geophysical Journal International*, **2004**, 156, 527-540	2.6	20
26	Decomposition of the elastic tensor and geophysical applications. *Geophysical Journal International*, **2004**, 159, 667-678	2.6	131
25	Shear wave splitting in three-dimensional anisotropic media. *Geophysical Journal International*, **2004**, 159, 711-720	2.6	54
24	Nonlinear waveform and delay time analysis of triplicated core phases. *Journal of Geophysical Research*, **2004**, 109,		19
23	On the effects of a dipping axis of symmetry on shear wave splitting measurements in a transversely isotropic medium. *Geophysical Journal International*, **2003**, 152, 497-505	2.6	36
22	Sensitivity kernels for shear wave splitting in transverse isotropic media. *Geophysical Journal International*, **2003**, 153, 213-228	2.6	78
21	Is there any structure inside the liquid outer core?. *Geophysical Research Letters*, **2003**, 30,	4.9	28
20	SS-wave sensitivity to upper mantle structure: Implications for the mapping of transition zone discontinuity topographies. *Geophysical Research Letters*, **2003**, 30,	4.9	24
19	Correlation between the shear-speed structure and thickness of the mantle transition zone. *Physics of the Earth and Planetary Interiors*, **2003**, 136, 25-40	2.3	32
18	Optimal measurement of relative and absolute delay times by simulated annealing. *Geophysical Journal International*, **2002**, 151, 164-171	2.6	43
17	Seismic evidence for olivine phase changes at the 410- and 660-kilometer discontinuities. *Science*, **2002**, 296, 1300-2	33.3	83
16	The 660-km discontinuity within the subducting NW-Pacific lithospheric slab. *Earth and Planetary Science Letters*, **2002**, 205, 25-35	5.3	23
15	Crustal thickness, discontinuity depth, and upper mantle structure beneath southern Africa: constraints from body wave conversions. *Physics of the Earth and Planetary Interiors*, **2002**, 130, 235-251	2.3	50
14	A waveform migration for the investigation of P wave structure at the top of D? beneath northern Siberia. *Journal of Geophysical Research*, **2001**, 106, 4129-4140		15

13	On the detection and identification of converted and reflected phases from receiver functions. *Geophysical Journal International*, **2000**, 141, 801-808	2.6	24
12	The Poisson ratio of the Australian crust: geological and geophysical implications. *Earth and Planetary Science Letters*, **2000**, 183, 121-132	5.3	159
11	Multichannel analysis of shear wave splitting. *Journal of Geophysical Research*, **2000**, 105, 21579-21590		105
10	Teleseismic travel time residuals in North America and anelasticity of the asthenosphere. *Physics of the Earth and Planetary Interiors*, **1999**, 116, 93-103	2.3	21
9	The Snake River Plain Experiment revisited. Relationships between a Farallon plate fragment and the transition zone. *Geophysical Research Letters*, **1999**, 26, 2673-2676	4.9	8
8	Global-scale analysis of the mantle Pds phases. *Journal of Geophysical Research*, **1999**, 104, 20203-20219		142
7	The spectrum of tomographic earth models. *Geophysical Journal International*, **1998**, 133, 783-788	2.6	30
6	Seismic evidence of flow at the base of the upper mantle. *Geophysical Research Letters*, **1998**, 25, 1995-1998	4.9	42
5	Evidence for a stagnant plume in the transition zone?. *Geophysical Research Letters*, **1997**, 24, 1007-1010	4.9	44
4	Source spectra and site-response estimates using the Coda of Lg waves in western Europe. *Geophysical Research Letters*, **1996**, 23, 1605-1608	4.9	4
3	The role of inheritance in forming rifts and rifted margins and building collisional orogens: a Biscay-Pyrenean perspective. *Bulletin - Societie Geologique De France*,	2.3	5
2	Cenozoic mountain building and topographic evolution in Western Europe: impact of billion years lithosphere evolution and plate tectonics. *Bulletin - Societie Geologique De France*,	2.3	4
1	Three-dimensional shear velocity structure of the Mauleon and Arzacq basins (Western Pyrenees). *Bulletin - Societie Geologique De France*,	2.3	4