Lapo Boschi

List of Publications by Year
in descending order

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99 papers	4,134 citations	136950 32 h-index	123424 61 g-index
105 all docs	105 docs citations	105 times ranked	3070 citing authors

#	Article	IF	Citations
1	A comparison of tomographic and geodynamic mantle models. Geochemistry, Geophysics, Geosystems, 2002, 3, n/a-n/a.	2.5	418
2	Mantle dynamics in the Mediterranean. Reviews of Geophysics, 2014, 52, 283-332.	23.0	394
3	GyPSuM: A joint tomographic model of mantle density and seismic wave speeds. Journal of Geophysical Research, 2010, 115, .	3.3	388
4	Savani: A variable resolution wholeâ€mantle model of anisotropic shear velocity variations based on multiple data sets. Journal of Geophysical Research: Solid Earth, 2014, 119, 3006-3034.	3.4	194
5	Tomography of the Alpine region from observations of seismic ambient noise. Geophysical Journal International, 2009, 178, 338-350.	2.4	157
6	High- and low-resolution images of the Earth's mantle: Implications of different approaches to tomographic modeling. Journal of Geophysical Research, 1999, 104, 25567-25594.	3.3	155
7	Whole Earth tomography from delay times ofP,PcP, andPKPphases: Lateral heterogeneities in the outer core or radial anisotropy in the mantle?. Journal of Geophysical Research, 2000, 105, 13675-13696.	3.3	110
8	New images of the Earth's upper mantle from measurements of surface wave phase velocity anomalies. Journal of Geophysical Research, 2002, 107, ESE 1-1-ESE 1-14.	3.3	107
9	Mantle plumes: Dynamic models and seismic images. Geochemistry, Geophysics, Geosystems, 2007, 8, .	2.5	92
10	Surface Wave Tomography of the Alps Using Ambientâ€Noise and Earthquake Phase Velocity Measurements. Journal of Geophysical Research: Solid Earth, 2018, 123, 1770-1792.	3.4	85
11	Mantle structure and dynamic topography in the Mediterranean Basin. Geophysical Research Letters, 2010, 37, .	4.0	75
12	On the relevance of Born theory in global seismic tomography. Geophysical Research Letters, 2006, 33, .	4.0	57
13	Two-receiver measurements of phase velocity: cross-validation of ambient-noise and earthquake-based observations. Geophysical Journal International, 2016, 207, 1493-1512.	2.4	57
14	The 2020 coronavirus lockdown and seismic monitoring of anthropic activities in Northern Italy. Scientific Reports, 2020, 10, 9404.	3.3	57
15	On measuring surface wave phase velocity from stationâ€“station cross-correlation of ambient signal. Geophysical Journal International, 2013, 192, 346-358.	2.4	55
16	Crustal and uppermost mantle shear wave velocity structure beneath the Middle East from surface wave tomography. Geophysical Journal International, 2020, 221, 1349-1365.	2.4	55
17	Multiple resolution surface wave tomography: the Mediterranean basin. Geophysical Journal International, 2004, 157, 293-304.	2.4	54
18	Geophysical applicability of atomic clocks: direct continental geoid mapping. Geophysical Journal International, 2012, 191, 78-82.	2.4	54

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19	Stationaryâ€phase integrals in the cross correlation of ambient noise. Reviews of Geophysics, 2015, 53, 411-451.	23.0	53
20	Italian and <scp>A</scp>lpine threeâ€dimensional crustal structure imaged by ambientâ€noise surfaceâ€wave dispersion. Geochemistry, Geophysics, Geosystems, 2015, 16, 4405-4421.	2.5	52
21	Seismic, petrological and geodynamical constraints on thermal and compositional structure of the upper mantle: global thermochemical models. Geophysical Journal International, 2011, 187, 1301-1318.	2.4	50
22	High-resolution Rayleigh-wave velocity maps of central Europe from a dense ambient-noise data set. Geophysical Journal International, 2012, 188, 1173-1187.	2.4	48
23	The European Upper Mantle as Seen by Surface Waves. Surveys in Geophysics, 2009, 30, 463-501.	4.6	45
24	On mantle chemical and thermal heterogeneities and anisotropy as mapped by inversion of global surface wave data. Journal of Geophysical Research, 2009, 114, .	3.3	45
25	Hydration of marginal basins and compositional variations within the continental lithospheric mantle inferred from a new global model of shear and compressional velocity. Journal of Geophysical Research: Solid Earth, 2015, 120, 7789-7813.	3.4	45
26	Slab break-offs in the Alpine subduction zone. International Journal of Earth Sciences, 2020, 109, 587-603.	1.8	45
27	Seismic attenuation from recordings of ambient noise. Geophysics, 2013, 78, Q1-Q14.	2.6	42
28	Measures of resolution in global body wave tomography. Geophysical Research Letters, 2003, 30, .	4.0	41
29	The fate of the slabs interacting with a density/viscosity hill in the mid-mantle. Physics of the Earth and Planetary Interiors, 2010, 180, 271-282.	1.9	40
30	Using the Post-Widder formula to compute the Earth's viscoelastic Love numbers. Geophysical Journal International, 2006, 166, 309-321.	2.4	39
31	Modeling Earth's post-glacial rebound. Eos, 2004, 85, 62.	0.1	34
32	Mapping the Earth's thermochemical and anisotropic structure using global surface wave data. Journal of Geophysical Research, 2011, 116, .	3.3	33
33	Tomography of core-mantle boundary and lowermost mantle coupled by geodynamics. Geophysical Journal International, 2012, 189, 730-746.	2.4	33
34	Global multiresolution models of surface wave propagation: comparing equivalently regularized Born and ray theoretical solutions. Geophysical Journal International, 2006, 167, 238-252.	2.4	32
35	Thermal structure, radial anisotropy, and dynamics of oceanic boundary layers. Geophysical Research Letters, 2015, 42, 9740-9749.	4.0	32
36	Outer core density heterogeneity and the discrepancy between PKP and PcP travel time observations. Geophysical Research Letters, 2003, 30, .	4.0	31

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37	On the statistical significance of correlations between synthetic mantle plumes and tomographic models. Physics of the Earth and Planetary Interiors, 2008, 167, 230-238.	1.9	31
38	Surface wave tomography: global membrane waves and adjoint methods. Geophysical Journal International, 2007, 171, 1098-1117.	2.4	30
39	Low seismic resolution cannot explain S/P decorrelation in the lower mantle. Geophysical Research Letters, 2011, 38, n/a-n/a.	4.0	28
40	On estimating attenuation from the amplitude of the spectrally whitened ambient seismic field. Geophysical Journal International, 2014, 197, 1770-1788.	2.4	28
41	Inferring radial models of mantle viscosity from gravity (GRACE) data and an evolutionary algorithm. Physics of the Earth and Planetary Interiors, 2009, 176, 19-32.	1.9	27
42	The resolution of whole Earth seismic tomographic models. Geophysical Journal International, 2005, 161, 143-153.	2.4	26
43	Adaptively parametrized surface wave tomography: methodology and a new model of the European upper mantle. Geophysical Journal International, 2011, 186, 1431-1453.	2.4	26
44	Forward and adjoint simulations of seismic wave propagation on emerging large-scale GPU architectures. , 2012, , .		26
45	Length scales, patterns and origin of azimuthal seismic anisotropy in the upper mantle as mapped by Rayleigh waves. Geophysical Journal International, 2007, 171, 451-462.	2.4	25
46	Tomographic resolution of ray and finite-frequency methods: a membrane-wave investigation. Geophysical Journal International, 2009, 177, 624-638.	2.4	24
47	The influence of nonuniform ambient noise on crustal tomography in Europe. Geochemistry, Geophysics, Geosystems, 2013, 14, 1471-1492.	2.5	23
48	Reliability of mantle tomography models assessed by spectral element simulation. Geophysical Journal International, 2009, 177, 125-144.	2.4	21
49	Green's function retrieval through cross-correlations in a two-dimensional complex reverberating medium. Journal of the Acoustical Society of America, 2014, 135, 1034-1043.	1.1	21
50	Magmatism on rift flanks: Insights from ambient noise phase velocity in Afar region. Geophysical Research Letters, 2015, 42, 2179-2188.	4.0	21
51	Seismic waveform inversion for coreâ€“mantle boundary topography. Geophysical Journal International, 2014, 198, 55-71.	2.4	20
52	Crustal and upper mantle structure beneath southâ€western margin of the Arabian Peninsula from teleseismic tomography. Geochemistry, Geophysics, Geosystems, 2014, 15, 2850-2864.	2.5	20
53	Local earthquakes detection: A benchmark dataset of 3-component seismograms built on a global scale. Artificial Intelligence in Geosciences, 2020, 1, 1-10.	1.9	20
54	Global postseismic deformation: Deep earthquakes. Journal of Geophysical Research, 2000, 105, 631-652.	3.3	18

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55	A new finiteâ€frequency shearâ€velocity model of the Europeanâ€Mediterranean region. Geophysical Research Letters, 2008, 35, .	4.0	18
56	On Maxwell singularities in postglacial rebound. Geophysical Journal International, 1999, 136, 492-498.	2.4	17
57	Constraints on coreâ€mantle boundary topography from normal mode splitting. Geochemistry, Geophysics, Geosystems, 2013, 14, 1333-1342.	2.5	17
58	Sâˆ’toâˆ’P heterogeneity ratio in the lower mantle and thermoâ€chemical implications. Geochemistry, Geophysics, Geosystems, 2016, 17, 2522-2538.	2.5	17
59	A Seismological Study of the Sos Enattos Areaâ€”the Sardinia Candidate Site for the Einstein Telescope. Seismological Research Letters, 2021, 92, 352-364.	1.9	17
60	Seismic waveform sensitivity to global boundary topography. Geophysical Journal International, 2012, 191, 832-848.	2.4	15
61	Petascale computing and resolution in global seismic tomography. Physics of the Earth and Planetary Interiors, 2007, 163, 245-250.	1.9	14
62	Europeâ€Mediterranean tomography: High correlation between new seismic data and independent geophysical observables. Geophysical Research Letters, 2008, 35, .	4.0	14
63	New Software Framework to Share Research Tools. Eos, 2009, 90, 104-104.	0.1	14
64	Surface wave ray tracing and azimuthal anisotropy: a generalized spherical harmonic approach. Geophysical Journal International, 2006, 164, 569-578.	2.4	13
65	On the estimation of attenuation from the ambient seismic field: inferences from distributions of isotropic point scatterers. Geophysical Journal International, 2015, 203, 1054-1071.	2.4	12
66	Multiscale, radially anisotropic shear wave imaging of the mantle underneath the contiguous United States through joint inversion of USArray and global data sets. Geophysical Journal International, 2021, 226, 1730-1746.	2.4	12
67	Azimuthal anisotropy from eikonal tomography: example from ambient-noise measurements in the AlpArray network. Geophysical Journal International, 2021, 229, 151-170.	2.4	12
68	Upper mantle structure of the southern Arabian margin: Insights from teleseismic tomography. , 2015, 11, 1262-1278.		11
69	Magmatism at continental passive margins inferred from Ambientâ€Noise Phaseâ€velocity in the Gulf of Aden. Terra Nova, 2016, 28, 19-26.	2.1	11
70	Arrival-angle effects on two-receiver measurements of phase velocity. Geophysical Journal International, 2020, 220, 1838-1844.	2.4	11
71	Categorization of seismic sources by auditory display: A blind test. International Journal of Human Computer Studies, 2016, 85, 57-67.	5.6	10
72	Inferring Crustal Temperatures Beneath Italy From Joint Inversion of Receiver Functions and Surface Waves. Journal of Geophysical Research: Solid Earth, 2019, 124, 8771-8785.	3.4	10

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73	3-D shear wave velocity model of the lithosphere below the Sardiniaâ€“Corsica continental block based on Rayleigh-wave phase velocities. Geophysical Journal International, 2020, 220, 2119-2130.	2.4	10
74	Surfaceâ€Wave Tomography of the Centralâ€Western Mediterranean: New Insights Into the Liguroâ€ProvenÃ§al and Tyrrhenian Basins. Journal of Geophysical Research: Solid Earth, 2022, 127, .	3.4	10
75	Estimating lateral structure in the Earth's outer core. Geophysical Research Letters, 2001, 28, 1659-1662.	4.0	9
76	The effect of global seismicity on the polar motion of a viscoelastic Earth. Journal of Geophysical Research, 2001, 106, 6761-6767.	3.3	9
77	Radial anisotropy in the European mantle: Tomographic studies explored in terms of mantle flow. Geophysical Research Letters, 2011, 38, n/a-n/a.	4.0	9
78	Auditory display of seismic data: On the use of experts' categorizations and verbal descriptions as heuristics for geoscience. Journal of the Acoustical Society of America, 2017, 141, 2143-2162.	1.1	9
79	On seismic ambient noise cross-correlation and surface-wave attenuation. Geophysical Journal International, 2019, 219, 1568-1589.	2.4	9
80	Surfaceâ€Wave Attenuation From Seismic Ambient Noise: Numerical Validation and Application. Journal of Geophysical Research: Solid Earth, 2021, 126, .	3.4	9
81	Time-dependent residual deformations associated with the June 9, 1994 Bolivia Earthquake. Geophysical Research Letters, 1997, 24, 2849-2852.	4.0	8
82	3D crustal structure of the Eastern Alpine region from ambient noise tomography. Results in Geophysical Sciences, 2020, 1-4, 100006.	0.9	8
83	Vertical coherence in mantle heterogeneity from global seismic data. Geophysical Research Letters, 2011, 38, n/a-n/a.	4.0	7
84	Surface-wave tomography using SeisLib: a Python package for multiscale seismic imaging. Geophysical Journal International, 2022, 231, 1011-1030.	2.4	7
85	Effect of ray and speed perturbations on ionospheric tomography by overâ€theâ€horizon radar: A new method. Journal of Geophysical Research: Space Physics, 2014, 119, 7841-7857.	2.4	6
86	A simple method for earthquake location by surface-wave time reversal. Geophysical Journal International, 2018, 215, 1-21.	2.4	6
87	Rayleigh-wave attenuation across the conterminous United States in the microseism frequency band. Scientific Reports, 2021, 11, 10149.	3.3	6
88	Bone-conducted sound in a dolphin's mandible: Experimental investigation of elastic waves mediating information on sound source position. Journal of the Acoustical Society of America, 2018, 144, 2213-2224.	1.1	5
89	On the Perception of Audified Seismograms. Seismological Research Letters, 2017, 88, 1279-1289.	1.9	4
90	Coda reconstruction from cross-correlation of a diffuse field on thin elastic plates. Physical Review E, 2017, 96, 032137.	2.1	3

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91	Combining audio and visual displays to highlight temporal and spatial seismic patterns. Journal on Multimodal User Interfaces, 0, , 1.	2.9	2
92	Tomography of core-mantle boundary and lowermost mantle coupled by geodynamics: joint models of shear and compressional velocity. Annals of Geophysics, 2015, 57, .	1.0	2
93	Contribution of bone-reverberated waves to sound localization of dolphins: A numerical model. Acta Acustica, 2021, 5, 3.	1.0	2
94	Seismic Ambient Noise Imaging of a Quasi-Amagmatic Ultra-Slow Spreading Ridge. Remote Sensing, 2021, 13, 2811.	4.0	1
95	Towards a method for attenuation inversion from reservoirâ€scale ambient noise OBS recordings. , 2011, , .		1
96	Images of the East African Rift System by Global Adaptiveâ€Resolution Surfaceâ€Wave Tomography. Journal of Geophysical Research: Solid Earth, 2022, 127, .	3.4	1
97	Super-Resolution in Near-Field Acoustic Time Reversal Using Reverberated Elastic Waves in Skull-Shaped Antenna. Acta Acustica United With Acustica, 2018, 104, 963-969.	0.8	0
98	The European Upper Mantle as Seen by Surface Waves. , 2009, , 195-233.		0
99	Can the Earthâ€™s harmonic spectrum be derived directly from the stochastic inversion of global travel-time data?. Annals of Geophysics, 2015, 57, .	1.0	0