Hrvoje TkalÄiÄ

List of Publications by Year
in descending order

110 papers	3,094 citations	147801 31 h-index	189892 50 g-index
124 all docs	124 docs citations	124 times ranked	2398 citing authors

#	Article	IF	Citations
1	Shear Properties of Earth's Inner Core. Annual Review of Earth and Planetary Sciences, 2022, 50, 153-181.	11.0	6
2	Repetitive marsquakes in Martian upper mantle. Nature Communications, 2022, 13, 1695.	12.8	20
3	A New Probe Into the Innermost Inner Core Anisotropy via the Global Codaâ€Correlation Wavefield. Journal of Geophysical Research: Solid Earth, 2022, 127, .	3.4	5
4	Internal structure of ultralow-velocity zones consistent with origin from a basal magma ocean. Nature Geoscience, 2022, 15, 79-84.	12.9	17
5	Evidence for the Innermost Inner Core: Robust Parameter Search for Radially Varying Anisotropy Using the Neighborhood Algorithm. Journal of Geophysical Research: Solid Earth, 2021, 126, .	3.4	18
6	Small-scale heterogeneity in the lowermost mantle beneath Alaska and northern Pacific revealed from shear-wave triplications. Earth and Planetary Science Letters, 2021, 559, 116768.	4.4	4
7	Constraining Floating Ice Shelf Structures by Spectral Response of Teleseismic Pâ€Wave Coda: Ross Ice Shelf, Antarctica. Journal of Geophysical Research: Solid Earth, 2021, 126, e2020JB021082.	3.4	1
8	CCREM: New Reference Earth Model From the Global Codaâ€Correlation Wavefield. Journal of Geophysical Research: Solid Earth, 2021, 126, e2021JB022515.	3.4	8
9	Lowermost Mantle Shearâ€Velocity Structure From Hierarchical Transâ€Dimensional Bayesian Tomography. Journal of Geophysical Research: Solid Earth, 2021, 126, e2020JB021557.	3.4	5
10	Shearâ€Wave Anisotropy in the Earth's Inner Core. Geophysical Research Letters, 2021, 48, e2021GL094784.	4.0	11
11	Nature of the crust beneath the islands of the Mozambique Channel: Constraints from receiver functions. Journal of African Earth Sciences, 2021, 184, 104379.	2.0	18
12	Toward Improving Pointâ€Source Momentâ€Tensor Inference by Incorporating 1D Earth Model's Uncertainty: Implications for the Long Valley Caldera Earthquakes. Journal of Geophysical Research: Solid Earth, 2021, 126, e2021JB022477.	3.4	4
13	Pointâ€Source Inversion of Small and Moderate Earthquakes From Pâ€wave Polarities and P/S Amplitude Ratios Within a Hierarchical Bayesian Framework: Implications for the Geysers Earthquakes. Journal of Geophysical Research: Solid Earth, 2020, 125, e2019JB018492.	3.4	36
14	The Earth's coda correlation wavefield: Rise of the new paradigm and recent advances. Earth-Science Reviews, 2020, 208, 103285.	9.1	30
15	On The Efficiency of <i>P</i>â€Wave Coda Autocorrelation in Recovering Crustal Structure: Examples From Dense Arrays in the Eastern United States. Journal of Geophysical Research: Solid Earth, 2020, 125, e2020JB020270.	3.4	7
16	Excitation of the global correlation wavefield by large earthquakes. Geophysical Journal International, 2020, 223, 1769-1779.	2.4	10
17	Probabilistic lowermost mantle P-wave tomography from hierarchical Hamiltonian Monte Carlo and model parametrization cross-validation. Geophysical Journal International, 2020, 223, 1630-1643.	2.4	12
18	Seismic Event Codaâ€Correlation: Toward Global Codaâ€Correlation Tomography. Journal of Geophysical Research: Solid Earth, 2020, 125, e2019JB018848.	3.4	15

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19	Resolvability of the Centroidâ€Momentâ€Tensors for Shallow Seismic Sources and Improvements From Modeling Highâ€Frequency Waveforms. Journal of Geophysical Research: Solid Earth, 2020, 125, e2020JB019643.	3.4	20
20	Crustal Thickness Beneath the Dinarides and Surrounding Areas From Receiver Function<i>s</i>. Tectonics, 2020, 39, e2019TC005872.	2.8	21
21	Seismic event coda-correlation's formation: implications for global seismology. Geophysical Journal International, 2020, 222, 1283-1294.	2.4	16
22	Seismic moment tensors from synthetic rotational and translational ground motion: Greenâ€™s functions in 1-D versus 3-D. Geophysical Journal International, 2020, 223, 161-179.	2.4	8
23	Large Isotropic Component in the Source Mechanism of the 2013 Democratic Peopleâ€™s Republic of Korea Nuclear Test Revealed via a Hierarchical Bayesian Inversion. Bulletin of the Seismological Society of America, 2020, 110, 166-177.	2.3	9
24	Earth's deepest earthquake swarms track fluid ascent beneath nascent arc volcanoes. Earth and Planetary Science Letters, 2019, 521, 25-36.	4.4	20
25	Very- and ultra-long-period seismic signals prior to and during caldera formation on La RÃ©union Island. Scientific Reports, 2019, 9, 8068.	3.3	26
26	Testing the limits of virtual deep seismic sounding via new crustal thickness estimates of the Australian continent. Geophysical Journal International, 2019, 218, 787-800.	2.4	8
27	The Mantle Transition Zone in Fennoscandia: Enigmatic High Topography Without Deep Mantle Thermal Anomaly. Geophysical Research Letters, 2019, 46, 3652-3662.	4.0	10
28	Transdimensional Bayesian Attenuation Tomography of the Upper Inner Core. Journal of Geophysical Research: Solid Earth, 2019, 124, 1929-1943.	3.4	9
29	AusArray: Toward updatable, high-resolution seismic velocity models of the Australian lithosphere. ASEG Extended Abstracts, 2019, 2019, 1-4.	0.1	0
30	Receiver functions from seismic interferometry: a practical guide. Geophysical Journal International, 2019, 217, 1-24.	2.4	29
31	The 20 May 2016 Petermann Ranges earthquake: centroid location, magnitude and focal mechanism from full waveform modelling. Australian Journal of Earth Sciences, 2019, 66, 37-45.	1.0	16
32	The Variability and Interpretation of Earthquake Source Mechanisms in The Geysers Geothermal Field From a Bayesian Standpoint Based on the Choice of a Noise Model. Journal of Geophysical Research: Solid Earth, 2018, 123, 513-532.	3.4	5
33	Polymorphic Nature of Iron and Degree of Lattice Preferred Orientation Beneath the Earth's Inner Core Boundary. Geochemistry, Geophysics, Geosystems, 2018, 19, 292-304.	2.5	3
34	Earth's Correlation Wavefield: Late Coda Correlation. Geophysical Research Letters, 2018, 45, 3035-3042.	4.0	48
35	Shear properties of Earthâ€™s inner core constrained by a detection of <i>J</i> waves in global correlation wavefield. Science, 2018, 362, 329-332.	12.6	55
36	Antarctic Ice Properties Revealed From Teleseismic <i>P</i> Wave Coda Autocorrelation. Journal of Geophysical Research: Solid Earth, 2018, 123, 7896-7912.	3.4	33

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37	Lineaments and earthquake ruptures on the East Japan megathrust. Lithosphere, 2018, 10, 512-522.	1.4	8
38	Attenuation tomography of the upper inner core. Journal of Geophysical Research: Solid Earth, 2017, 122, 3008-3032.	3.4	20
39	On the feasibility and use of teleseismic <i>P</i> wave coda autocorrelation for mapping shallow seismic discontinuities. Journal of Geophysical Research: Solid Earth, 2017, 122, 3776-3791.	3.4	66
40	Crustal structure of a Proterozoic craton boundary: East Albany-Fraser Orogen, Western Australia, imaged with passive seismic and gravity anomaly data. Precambrian Research, 2017, 296, 78-92.	2.7	13
41	Crustal surface wave velocity structure of the east Albany-Fraser Orogen, Western Australia, from ambient noise recordings. Geophysical Journal International, 2017, 210, 1641-1651.	2.4	5
42	Centroid moment tensor catalogue using a 3â€D continental scale Earth model: Application to earthquakes in Papua New Guinea and the Solomon Islands. Journal of Geophysical Research: Solid Earth, 2017, 122, 5517-5543.	3.4	50
43	Seismic constraints on magma evolution beneath Mount Baekdu (Changbai) volcano from transdimensional Bayesian inversion of ambient noise data. Journal of Geophysical Research: Solid Earth, 2017, 122, 5452-5473.	3.4	41
44	Bayesian Inversion of Receiver Functions and Surface Wave Dispersion Data in the Brazilian Northeast. , 2017, , .		0
45	Highly efficient Bayesian joint inversion for receiver-based data and its application to lithospheric structure beneath the southern Korean Peninsula. Geophysical Journal International, 2016, 206, 328-344.	2.4	18
46	Intraplate volcanism controlled by backâ€arc and continental structures in NE Asia inferred from transdimensional Bayesian ambient noise tomography. Geophysical Research Letters, 2016, 43, 8390-8398.	4.0	28
47	Point source moment tensor inversion through a Bayesian hierarchical model. Geophysical Journal International, 2016, 204, 311-323.	2.4	46
48	Estimation of splitting functions from Earth's normal mode spectra using the neighbourhood algorithm. Geophysical Journal International, 2016, 204, 111-126.	2.4	7
49	Strong, Multi-Scale Heterogeneity in Earthâ€™s Lowermost Mantle. Scientific Reports, 2015, 5, 18416.	3.3	28
50	The frequency dependence and locations of shortâ€period microseisms generated in the Southern Ocean and West Pacific. Journal of Geophysical Research: Solid Earth, 2015, 120, 5764-5781.	3.4	35
51	Complex inner core boundary from frequency characteristics of the reflection coefficients of PKiKP waves observed by Hi-net. Progress in Earth and Planetary Science, 2015, 2, .	3.0	13
52	New constraints on the current stress field and seismic velocity structure of the eastern Yilgarn Craton from mechanisms of local earthquakes. Australian Journal of Earth Sciences, 2015, 62, 921-931.	1.0	6
53	Complex inner core of the Earth: The last frontier of global seismology. Reviews of Geophysics, 2015, 53, 59-94.	23.0	60
54	Ultra-low velocity zones beneath the Philippine and Tasman Seas revealed by a trans-dimensional Bayesian waveform inversion. Geophysical Journal International, 2015, 203, 1302-1318.	2.4	19

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55	A method of spherical harmonic analysis in the geosciences via hierarchical Bayesian inference. Geophysical Journal International, 2015, 203, 1164-1171.	2.4	6
56	Crustal and uppermost mantle structure variation beneath La RÃ©union hotspot track. Geophysical Journal International, 2015, 203, 107-126.	2.4	61
57	Skewed orientation groups in scatter plots of earthquake fault plane solutions: Implications for extensional geometry at oceanic spreading centers. Journal of Geophysical Research: Solid Earth, 2014, 119, 2055-2067.	3.4	3
58	Bayesian inference for ultralow velocity zones in the Earth's lowermost mantle: Complex ULVZ beneath the east of the Philippines. Journal of Geophysical Research: Solid Earth, 2014, 119, 8346-8365.	3.4	27
59	Regionally heterogeneous uppermost inner core observed with Hiâ€net array. Journal of Geophysical Research: Solid Earth, 2014, 119, 7823-7845.	3.4	18
60	Dominant seismic noise sources in the Southern Ocean and West Pacific, 2000â€"2012, recorded at the Warramunga Seismic Array, Australia. Geophysical Research Letters, 2014, 41, 3455-3463.	4.0	37
61	On the nature of the P-wave velocity gradient in the inner core beneath Central America. Journal of Earth Science (Wuhan, China), 2013, 24, 699-705.	3.2	4
62	The shuffling rotation of the Earthâ€™s inner core revealed by earthquake doublets. Nature Geoscience, 2013, 6, 497-502.	12.9	68
63	Metapyroxenite in the mantle transition zone revealed from majorite inclusions in diamonds. Geology, 2013, 41, 883-886.	4.4	38
64	Imaging crustal structure variation across southeastern Australia. Tectonophysics, 2013, 582, 112-125.	2.2	16
65	Transdimensional inference in the geosciences. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2013, 371, 20110547.	3.4	121
66	Generic Self-Management Model for Wireless Network Management. , 2013, , .		1
67	Crustal complexity in the Lachlan Orogen revealed from teleseismic receiver functions. Australian Journal of Earth Sciences, 2013, 60, 413-430.	1.0	7
68	Global <i>P</i> wave tomography of Earth's lowermost mantle from partition modeling. Journal of Geophysical Research: Solid Earth, 2013, 118, 5467-5486.	3.4	30
69	Candy Wrapper for the Earth's Inner Core. Scientific Reports, 2013, 3, 2096.	3.3	20
70	Seismic structure of the crust and uppermost mantle of the Capricorn and Paterson Orogens and adjacent cratons, Western Australia, from passive seismic transects. Precambrian Research, 2012, 196-197, 295-308.	2.7	26
71	Transdimensional inversion of receiver functions and surface wave dispersion. Journal of Geophysical Research, 2012, 117, .	3.3	293
72	Exploiting seismic signal and noise in an intracratonic environment to constrain crustal structure and source parameters of infrequent earthquakes. Geophysical Journal International, 2012, 188, 1303-1321.	2.4	3

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73	Multistep modelling of receiver-based seismic and ambient noise data from WOMBAT array: crustal structure beneath southeast Australia. Geophysical Journal International, 2012, 189, 1680-1700.	2.4	9
74	High-frequency ambient noise tomography of southeast Australia: New constraints on Tasmania's tectonic past. Geophysical Research Letters, 2011, 38, n/a-n/a.	4.0	60
75	Seismic moment tensor inversion using a 3-D structural model: applications for the Australian region. Geophysical Journal International, 2011, 184, 949-964.	2.4	37
76	Crustal and uppermost mantle structure beneath the External Dinarides, Croatia, determined from teleseismic receiver functions. Geophysical Journal International, 2011, 185, 1103-1119.	2.4	31
77	Multistep modelling of teleseismic receiver functions combined with constraints from seismic tomography: crustal structure beneath southeast China. Geophysical Journal International, 2011, 187, 303-326.	2.4	45
78	Core structure re-examined using new teleseismic data recorded in Antarctica: evidence for, at most, weak cylindrical seismic anisotropy in the inner core. Geophysical Journal International, 2010, 180, 1329-1343.	2.4	28
79	Crustal structure beneath China from receiver function analysis. Journal of Geophysical Research, 2010, 115, .	3.3	68
80	Large variations in travel times of mantleâ€sensitive seismic waves from the South Sandwich Islands: Is the Earth's inner core a conglomerate of anisotropic domains?. Geophysical Research Letters, 2010, 37, .	4.0	37
81	Benford's law in the natural sciences. Geophysical Research Letters, 2010, 37, .	4.0	95
82	Insights into the kinematics of a volcanic caldera drop: Probabilistic finite-source inversion of the 1996 BÃ¡rdarbunga, Iceland, earthquake. Earth and Planetary Science Letters, 2010, 297, 607-615.	4.4	30
83	Steep reflections from the earth's core reveal small-scale heterogeneity in the upper mantle. Physics of the Earth and Planetary Interiors, 2010, 178, 80-91.	1.9	25
84	Structure of the Tasmanian lithosphere from 3D seismic tomography. Australian Journal of Earth Sciences, 2010, 57, 381-394.	1.0	28
85	On the inner-outer core density contrast from PKiKP/PcP amplitude ratios and uncertainties caused by seismic noise. Geophysical Journal International, 2009, 179, 425-443.	2.4	54
86	The Puzzle of the 1996 Bardarbunga, Iceland, Earthquake: No Volumetric Component in the Source Mechanism. Bulletin of the Seismological Society of America, 2009, 99, 3077-3085.	2.3	31
87	Core structure and heterogeneity: a seismological perspectiveâˆ—. Australian Journal of Earth Sciences, 2008, 55, 419-431.	1.0	23
88	Dynamic Earth: crustal and mantle heterogeneity. Australian Journal of Earth Sciences, 2008, 55, 265-279.	1.0	19
89	Teleseismic Travel-Time Delays in the Las Vegas Basin. Bulletin of the Seismological Society of America, 2008, 98, 2047-2060.	2.3	4
90	Seismic structure of Kuwait. Geophysical Journal International, 2007, 170, 299-312.	2.4	23

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91	Efficiency of Decentralized Self-Managing System for IEEE 802.11 WLANs. , 2006, , .		0
92	Observation of near-podal Pâ€²Pâ€² precursors: Evidence for back scattering from the 150â€"220 km zone in the Earth's upper mantle. Geophysical Research Letters, 2006, 33, .	4.0	18
93	A multistep approach for joint modeling of surface wave dispersion and teleseismic receiver functions: Implications for lithospheric structure of the Arabian Peninsula. Journal of Geophysical Research, 2006, 111, n/a-n/a.	3.3	84
94	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.	1.9	38
95	Site Response in Las Vegas Valley, Nevada from NTS Explosions and Earthquake Data. Pure and Applied Geophysics, 2006, 163, 55-80.	1.9	9
96	On the origin of complexity in PKP travel time data. Geodynamic Series, 2003, , 31-44.	0.1	49
97	Short scale heterogeneity in the lowermost mantle: insights from PcP-P and ScS-S data. Earth and Planetary Science Letters, 2002, 201, 57-68.	4.4	31
98	Constraints on Dâ€³ structure using PKP(AB-DF), PKP(BC-DF) and PcP-P traveltime data from broad-band records. Geophysical Journal International, 2002, 149, 599-616.	2.4	77
99	Near-source velocity structure and isotropic moment tensors: A case study of the Long Valley Caldera. Geophysical Research Letters, 2001, 28, 1815-1818.	4.0	14
100	The effect of Dâ€³ on PKP(ABâˆ'DF) travel time residuals and possible implications for inner core structure. Earth and Planetary Science Letters, 2000, 175, 133-143.	4.4	65
101	Dilational Processes Accompanying Earthquakes in the Long Valley Caldera. Science, 2000, 288, 122-125.	12.6	170
102	PKP(BC-DF) Travel time residuals and short scale heterogeneity in the deep Earth. Geophysical Research Letters, 1999, 26, 3169-3172.	4.0	59
103	On the History of Inner Core Discovery. , 0, , 1-6.		0
104	Seismological Tools to Study the Inner Core. , 0, , 7-37.		0
105	Inner Core Surface and Its Interior. , 0, , 38-73.		1
106	Inner Core Anisotropy. , 0, , 74-130.		0
107	Inner Core Rotational Dynamics. , 0, , 131-168.		0
108	The Limitations, the Obstacles, and theWay Forward. , 0, , 169-187.		0

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109	On the Use of Data Noise as a Siteâ€Specific Weight Parameter in a Hierarchical Bayesian Moment Tensor Inversion: The Case Study of The Geysers and Long Valley Caldera Earthquakes. Bulletin of the Seismological Society of America, 0, , .	2.3	3
110	Simultaneous use of multiple seismic arrays. Geophysical Journal International, 0, , ggx027.	2.4	1