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	Transdimensional inversion of receiver functions and surface wave dispersion. Journal of Geophysical Research, 2012, 117, .	3.3	293
2	Dilational Processes Accompanying Earthquakes in the Long Valley Caldera. Science, 2000, 288, 122-125.	12.6	170
3	Transdimensional inference in the geosciences. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2013, 371, 20110547.	3.4	121
4	Benford's law in the natural sciences. Geophysical Research Letters, 2010, 37, .	4.0	95
5	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
6	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
7	Crustal structure beneath China from receiver function analysis. Journal of Geophysical Research, 2010, 115, .	3.3	68
8	The shuffling rotation of the Earthâ€™s inner core revealed by earthquake doublets. Nature Geoscience, 2013, 6, 497-502.	12.9	68
9	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
10	The effect of Dâ€³ on PKP(ABâ^'DF) travel time residuals and possible implications for inner core structure. Earth and Planetary Science Letters, 2000, 175, 133-143.	4.4	65
11	Crustal and uppermost mantle structure variation beneath La RÃ©union hotspot track. Geophysical Journal International, 2015, 203, 107-126.	2.4	61
12	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
13	Complex inner core of the Earth: The last frontier of global seismology. Reviews of Geophysics, 2015, 53, 59-94.	23.0	60
14	PKP(BC-DF) Travel time residuals and short scale heterogeneity in the deep Earth. Geophysical Research Letters, 1999, 26, 3169-3172.	4.0	59
15	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
16	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
17	Centroid moment tensor catalogue using a 3â€Ð 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
18	On the origin of complexity in PKP travel time data. Geodynamic Series, 2003, , 31-44.	0.1	49

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19	Earth's Correlation Wavefield: Late Coda Correlation. Geophysical Research Letters, 2018, 45, 3035-3042.	4.0	48
20	Point source moment tensor inversion through a Bayesian hierarchical model. Geophysical Journal International, 2016, 204, 311-323.	2.4	46
21	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
22	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
23	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
24	Metapyroxenite in the mantle transition zone revealed from majorite inclusions in diamonds. Geology, 2013, 41, 883-886.	4.4	38
25	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
26	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
27	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
28	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
29	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
30	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
31	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
32	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
33	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
34	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
35	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
36	The Earth's coda correlation wavefield: Rise of the new paradigm and recent advances. Earth-Science Reviews, 2020, 208, 103285.	9.1	30

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37	Receiver functions from seismic interferometry: a practical guide. Geophysical Journal International, 2019, 217, 1-24.	2.4	29
38	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
39	Structure of the Tasmanian lithosphere from 3D seismic tomography. Australian Journal of Earth Sciences, 2010, 57, 381-394.	1.0	28
40	Strong, Multi-Scale Heterogeneity in Earthâ€™s Lowermost Mantle. Scientific Reports, 2015, 5, 18416.	3.3	28
41	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
42	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
43	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
44	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
45	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
46	Seismic structure of Kuwait. Geophysical Journal International, 2007, 170, 299-312.	2.4	23
47	Core structure and heterogeneity: a seismological perspectiveâˆ—. Australian Journal of Earth Sciences, 2008, 55, 419-431.	1.0	23
48	Crustal Thickness Beneath the Dinarides and Surrounding Areas From Receiver Function<i>s</i>. Tectonics, 2020, 39, e2019TC005872.	2.8	21
49	Candy Wrapper for the Earth's Inner Core. Scientific Reports, 2013, 3, 2096.	3.3	20
50	Attenuation tomography of the upper inner core. Journal of Geophysical Research: Solid Earth, 2017, 122, 3008-3032.	3.4	20
51	Earth's deepest earthquake swarms track fluid ascent beneath nascent arc volcanoes. Earth and Planetary Science Letters, 2019, 521, 25-36.	4.4	20
52	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
53	Repetitive marsquakes in Martian upper mantle. Nature Communications, 2022, 13, 1695.	12.8	20
54	Dynamic Earth: crustal and mantle heterogeneity. Australian Journal of Earth Sciences, 2008, 55, 265-279.	1.0	19

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55	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
56	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
57	Regionally heterogeneous uppermost inner core observed with Hiâ€net array. Journal of Geophysical Research: Solid Earth, 2014, 119, 7823-7845.	3.4	18
58	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
59	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
60	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
61	Internal structure of ultralow-velocity zones consistent with origin from a basal magma ocean. Nature Geoscience, 2022, 15, 79-84.	12.9	17
62	Imaging crustal structure variation across southeastern Australia. Tectonophysics, 2013, 582, 112-125.	2.2	16
63	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
64	Seismic event coda-correlation's formation: implications for global seismology. Geophysical Journal International, 2020, 222, 1283-1294.	2.4	16
65	Seismic Event Codaâ€Correlation: Toward Global Codaâ€Correlation Tomography. Journal of Geophysical Research: Solid Earth, 2020, 125, e2019JB018848.	3.4	15
66	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
67	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
68	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
69	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
70	Shearâ€Wave Anisotropy in the Earth's Inner Core. Geophysical Research Letters, 2021, 48, e2021GL094784.	4.0	11
71	The Mantle Transition Zone in Fennoscandia: Enigmatic High Topography Without Deep Mantle Thermal Anomaly. Geophysical Research Letters, 2019, 46, 3652-3662.	4.0	10
72	Excitation of the global correlation wavefield by large earthquakes. Geophysical Journal International, 2020, 223, 1769-1779.	2.4	10

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73	Site Response in Las Vegas Valley, Nevada from NTS Explosions and Earthquake Data. Pure and Applied Geophysics, 2006, 163, 55-80.	1.9	9
74	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
75	Transdimensional Bayesian Attenuation Tomography of the Upper Inner Core. Journal of Geophysical Research: Solid Earth, 2019, 124, 1929-1943.	3.4	9
76	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
77	Lineaments and earthquake ruptures on the East Japan megathrust. Lithosphere, 2018, 10, 512-522.	1.4	8
78	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
79	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
80	CCREM: New Reference Earth Model From the Global Codaâ€Correlation Wavefield. Journal of Geophysical Research: Solid Earth, 2021, 126, e2021JB022515.	3.4	8
81	Crustal complexity in the Lachlan Orogen revealed from teleseismic receiver functions. Australian Journal of Earth Sciences, 2013, 60, 413-430.	1.0	7
82	Estimation of splitting functions from Earth's normal mode spectra using the neighbourhood algorithm. Geophysical Journal International, 2016, 204, 111-126.	2.4	7
83	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
84	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
85	A method of spherical harmonic analysis in the geosciences via hierarchical Bayesian inference. Geophysical Journal International, 2015, 203, 1164-1171.	2.4	6
86	Shear Properties of Earth's Inner Core. Annual Review of Earth and Planetary Sciences, 2022, 50, 153-181.	11.0	6
87	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
88	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
89	Lowermost Mantle Shearâ€Velocity Structure From Hierarchical Transâ€Dimensional Bayesian Tomography. Journal of Geophysical Research: Solid Earth, 2021, 126, e2020JB021557.	3.4	5
90	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

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91	Teleseismic Travel-Time Delays in the Las Vegas Basin. Bulletin of the Seismological Society of America, 2008, 98, 2047-2060.	2.3	4
92	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
93	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
94	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
95	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
96	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
97	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
98	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
99	Generic Self-Management Model for Wireless Network Management. , 2013, , .		1
100	Inner Core Surface and Its Interior. , 0, , 38-73.		1
101	Simultaneous use of multiple seismic arrays. Geophysical Journal International, 0, , ggx027.	2.4	1
102	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
103	Efficiency of Decentralized Self-Managing System for IEEE 802.11 WLANs. , 2006, , .		0
104	On the History of Inner Core Discovery. , 0, , 1-6.		0
105	Seismological Tools to Study the Inner Core. , 0, , 7-37.		0
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	AusArray: Toward updatable, high-resolution seismic velocity models of the Australian lithosphere. ASEG Extended Abstracts, 2019, 2019, 1-4.	0.1	0
110	Bayesian Inversion of Receiver Functions and Surface Wave Dispersion Data in the Brazilian Northeast. , 2017, , .		0