

Sebastian Rost

List of Publications by Year in descending order

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Version: 2024-02-01

58
papers

2,438
citations

257450

24
h-index

197818

49
g-index

64
all docs

64
docs citations

64
times ranked

1776
citing authors

#	ARTICLE	IF	CITATIONS
1	Array seismology: Methods and applications. <i>Reviews of Geophysics</i> , 2002, 40, 2-1.	23.0	717
2	Tracking deep mantle reservoirs with ultra-low velocity zones. <i>Earth and Planetary Science Letters</i> , 2010, 299, 1-9.	4.4	187
3	Seismological constraints on a possible plume root at the core-mantle boundary. <i>Nature</i> , 2005, 435, 666-669.	27.8	156
4	Melting of the Earth's inner core. <i>Nature</i> , 2011, 473, 361-363.	27.8	125
5	Improving Seismic Resolution Through Array Processing Techniques. <i>Surveys in Geophysics</i> , 2009, 30, 271-299.	4.6	96
6	Small-scale ultralow-velocity zone structure imaged by ScP. <i>Journal of Geophysical Research</i> , 2003, 108, .	3.3	73
7	Seismic Detection of Rigid Zones at the Top of the Core. <i>Science</i> , 2001, 294, 1911-1914.	12.6	69
8	Fine-scale ultralow-velocity zone structure from high-frequency seismic array data. <i>Journal of Geophysical Research</i> , 2006, 111, .	3.3	62
9	Crustal imaging across the North Anatolian Fault Zone from the autocorrelation of ambient seismic noise. <i>Geophysical Research Letters</i> , 2016, 43, 2502-2509.	4.0	56
10	Seismic array detection of subducted oceanic crust in the lower mantle. <i>Journal of Geophysical Research</i> , 2008, 113, .	3.3	48
11	Regional stratification at the top of Earth's core due to core-mantle boundary heat flux variations. <i>Nature Geoscience</i> , 2019, 12, 575-580.	12.9	48
12	New insights into the P- and S-wave velocity structure of the D ₄₃₃ discontinuity beneath the Cocos plate. <i>Geophysical Journal International</i> , 2007, 169, 631-645.	2.4	40
13	A reflector at 200 km depth beneath the northwest Pacific. <i>Geophysical Journal International</i> , 2001, 147, 12-28.	2.4	38
14	The P-wave boundary of the Large-Low Shear Velocity Province beneath the Pacific. <i>Earth and Planetary Science Letters</i> , 2014, 403, 380-392.	4.4	36
15	A compositional origin to ultralow-velocity zones. <i>Geophysical Research Letters</i> , 2015, 42, 1039-1045.	4.0	36
16	Crustal-scale shear zones and heterogeneous structure beneath the North Anatolian Fault Zone, Turkey, revealed by a high-density seismometer array. <i>Earth and Planetary Science Letters</i> , 2015, 430, 129-139.	4.4	35
17	The upper mantle transition zone discontinuities in the Pacific as determined by short-period array data. <i>Earth and Planetary Science Letters</i> , 2002, 204, 347-361.	4.4	32
18	Thin and intermittent ultralow-velocity zones. <i>Journal of Geophysical Research</i> , 2010, 115, .	3.3	32

#	ARTICLE	IF	CITATIONS
19	Detection of a tall ridge at the core-mantle boundary from scattered PKP energy. <i>Geophysical Journal International</i> , 2013, 195, 558-574.	2.4	32
20	Seismic evidence for Earth's crusty deep mantle. <i>Earth and Planetary Science Letters</i> , 2017, 470, 54-63.	4.4	31
21	Scattering beneath Western Pacific subduction zones: evidence for oceanic crust in the mid-mantle. <i>Geophysical Journal International</i> , 2014, 197, 1627-1641.	2.4	28
22	Detection of an ultralow velocity zone at the core-mantle boundary using diffracted PKP waves. <i>Journal of Geophysical Research</i> , 2006, 111, .	3.3	26
23	New constraints on micro-seismicity and stress state in the western part of the North Anatolian Fault Zone: Observations from a dense seismic array. <i>Tectonophysics</i> , 2015, 656, 190-201.	2.2	26
24	Near-surface structure of the North Anatolian Fault zone from Rayleigh and Love wave tomography using ambient seismic noise. <i>Solid Earth</i> , 2019, 10, 363-378.	2.8	26
25	Identifying regions of strong scattering at the core-mantle boundary from analysis of PKP precursor energy. <i>Earth and Planetary Science Letters</i> , 2010, 297, 616-626.	4.4	25
26	Dynamical links between small- and large-scale mantle heterogeneity: Seismological evidence. <i>Earth and Planetary Science Letters</i> , 2018, 482, 135-146.	4.4	24
27	Crustal thickness variations and isostatic disequilibrium across the North Anatolian Fault, western Turkey. <i>Geophysical Research Letters</i> , 2015, 42, 751-757.	4.0	23
28	On the absence of an ultralow-velocity zone in the North Pacific. <i>Journal of Geophysical Research</i> , 2010, 115, .	3.3	22
29	Small-scale changes of core-mantle boundary reflectivity studied using core reflected PcP. <i>Physics of the Earth and Planetary Interiors</i> , 2004, 145, 19-36.	1.9	21
30	SPdKS analysis of ultralow-velocity zones beneath the western Pacific. <i>Geophysical Research Letters</i> , 2013, 40, 4574-4578.	4.0	21
31	Mantle transition zone structure beneath India and Western China from migration of PP and SS precursors. <i>Geophysical Journal International</i> , 2014, 197, 396-413.	2.4	21
32	Automated seismic waveform location using multichannel coherency migration (MCM) theory. <i>Geophysical Journal International</i> , 2019, 216, 1842-1866.	2.4	21
33	High resolution CMB imaging from migration of short-period core reflected phases. <i>Physics of the Earth and Planetary Interiors</i> , 2010, 183, 143-150.	1.9	16
34	Fine-scale structure of the mid-mantle characterised by global stacks of PP precursors. <i>Earth and Planetary Science Letters</i> , 2017, 472, 164-173.	4.4	15
35	The Most Parsimonious Ultralow-velocity Zone Distribution From Highly Anomalous SPdKS Waveforms. <i>Geochemistry, Geophysics, Geosystems</i> , 2021, 22, .	2.5	15
36	Imaging Global Seismic Phase Arrivals by Stacking Array Processed Short-Period Data. <i>Seismological Research Letters</i> , 2006, 77, 697-707.	1.9	14

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37	Ultralow-velocity zone geometries resolved by multidimensional waveform modelling. <i>Geophysical Journal International</i> , 2016, 206, 659-674.	2.4	12
38	A study of the uppermost inner core from PKKP and ϵ^2 differential traveltimes. <i>Geophysical Journal International</i> , 2004, 156, 565-574.	2.4	11
39	Array seismology advances research into Earth's interior. <i>Eos</i> , 2004, 85, 301.	0.1	11
40	Scattered P'P' Waves Observed at Short Distances. <i>Bulletin of the Seismological Society of America</i> , 2011, 101, 2843-2854.	2.3	11
41	Seismic Detections of Small-Scale Heterogeneities in the Deep Earth. , 2015, , 367-390.		11
42	A joint inversion of receiver function and Rayleigh wave phase velocity dispersion data to estimate crustal structure in West Antarctica. <i>Geophysical Journal International</i> , 2020, 223, 1644-1657.	2.4	11
43	Investigating ultra-low velocity zones in the southern hemisphere using an Antarctic dataset. <i>Earth and Planetary Science Letters</i> , 2020, 536, 116142.	4.4	11
44	Fine-Scale Ultra-Low Velocity Zone Layering at the Core-Mantle Boundary and Superplumes. , 2007, , 139-158.		10
45	Lateral Velocity Gradients in the African Lower Mantle Inferred From Slowness Space Observations of Multipathing. <i>Geochemistry, Geophysics, Geosystems</i> , 2020, 21, e2020GC009025.	2.5	8
46	Core-mantle boundary landscapes. <i>Nature Geoscience</i> , 2013, 6, 89-90.	12.9	7
47	Automated seismic waveform location using Multichannel Coherency Migration (MCM) II. Application to induced and volcano-tectonic seismicity. <i>Geophysical Journal International</i> , 2019, 216, 1608-1632.	2.4	7
48	Detection of a ϵ^3 discontinuity in the south Atlantic using PKKP. <i>Geophysical Research Letters</i> , 2003, 30, .	4.0	6
49	Seismic detection of sublithospheric plume head residue beneath the Pitcairn hot-spot chain. <i>Earth and Planetary Science Letters</i> , 2003, 209, 71-83.	4.4	6
50	Interaction of the Cyprus/Tethys slab with the mantle transition zone beneath Anatolia. <i>Geophysical Journal International</i> , 2019, 216, 1665-1674.	2.4	6
51	Automatic slowness vector measurements of seismic arrivals with uncertainty estimates using bootstrap sampling, array methods and unsupervised learning. <i>Geophysical Journal International</i> , 2021, 226, 1847-1857.	2.4	6
52	Structure of the northwestern North Anatolian Fault Zone imaged via teleseismic scattering tomography. <i>Geophysical Journal International</i> , 2021, 227, 922-940.	2.4	5
53	Historical Interstation Pattern Referencing (HIPR): An Application to PcP Waves Recorded in the Antarctic for ULVZ Imaging. <i>Journal of Geophysical Research: Solid Earth</i> , 2021, 126, e2021JB022741.	3.4	3
54	Stress Drops on the Blanco Oceanic Transform Fault from Interstation Phase Coherence. <i>Bulletin of the Seismological Society of America</i> , 2019, 109, 929-943.	2.3	1

#	ARTICLE	IF	CITATIONS
55	Improving Seismic Resolution Through Array Processing Techniques. , 2009, , 3-31.		1
56	Seismic constraints on Earth's small-scale structure. Astronomy and Geophysics, 0, 51, 2.26-2.32.	0.2	0
57	Small-scale lithospheric heterogeneity characterization using Bayesian inference and energy flux models. Geophysical Journal International, 2021, 227, 1682-1699.	2.4	0
58	Kinetic effects on the 660km-phase transition in mantle upstreams and seismological implications. Geophysical Journal International, 0, , .	2.4	0