Martin Schimmel

List of Publications by Year
in descending order

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97 papers	4,364 citations	117625 34 h-index	114465 63 g-index
119 all docs	119 docs citations	119 times ranked	2973 citing authors

#	Article	IF	Citations
1	Sparsity-Promoting Approach to Polarization Analysis of Seismic Signals in the Timeâ€“Frequency Domain. IEEE Transactions on Geoscience and Remote Sensing, 2022, 60, 1-11.	6.3	7
2	Imaging the crust and uppermost mantle structure of Portugal (West Iberia) with seismic ambient noise. Geophysical Journal International, 2022, 230, 1106-1120.	2.4	6
3	Towards a Digital Twin of the Earth System: Geo-Soft-CoRe, a Geoscientific Software & Code Repository. Frontiers in Earth Science, 2022, 10, .	1.8	1
4	The Far Side of Mars: Two Distant Marsquakes Detected by InSight. The Seismic Record, 2022, 2, 88-99.	3.1	29
5	Evidence for crustal seismic anisotropy at the InSight lander site. Earth and Planetary Science Letters, 2022, 593, 117654.	4.4	21
6	Crustal and uppermost mantle structure of Cape Verde from ambient noise tomography. Geophysical Journal International, 2022, 231, 1421-1433.	2.4	5
7	Companion guide to the marsquake catalog from InSight, Sols 0â€“478: Data content and non-seismic events. Physics of the Earth and Planetary Interiors, 2021, 310, 106597.	1.9	64
8	The Polarization of Ambient Noise on Mars. Journal of Geophysical Research E: Planets, 2021, 126, e2020JE006545.	3.6	33
9	Autocorrelation of the Ground Vibrations Recorded by the SEISâ€InSight Seismometer on Mars. Journal of Geophysical Research E: Planets, 2021, 126, e2020JE006498.	3.6	34
10	Seismic Noise Autocorrelations on Mars. Earth and Space Science, 2021, 8, e2021EA001755.	2.6	31
11	Thickness and structure of the martian crust from InSight seismic data. Science, 2021, 373, 438-443.	12.6	140
12	Seismic detection of the martian core. Science, 2021, 373, 443-448.	12.6	169
13	Urban seismic monitoring in BrasÃ¼lia, Brazil. PLoS ONE, 2021, 16, e0253610.	2.5	5
14	Potential Pitfalls in the Analysis and Structural Interpretation of Seismic Data from the Mars InSight Mission. Bulletin of the Seismological Society of America, 2021, 111, 2982-3002.	2.3	42
15	Four decades of geophysical research on Iberia and adjacent margins. Earth-Science Reviews, 2021, 222, 103841.	9.1	8
16	Resonances and Lander Modes Observed by InSight on Mars (1â€“9ÂHz). Bulletin of the Seismological Society of America, 2021, 111, 2924-2950.	2.3	30
17	Uppermost crustal structure regulates the flow of the Greenland Ice Sheet. Nature Communications, 2021, 12, 7307.	12.8	5
18	Crustal Velocity Anomalies in Costa Rica from Ambient Noise Tomography. Pure and Applied Geophysics, 2020, 177, 941-960.	1.9	10

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19	Detection, Analysis, and Removal of Glitches From InSight's Seismic Data From Mars. Earth and Space Science, 2020, 7, e2020EA001317.	2.6	75
20	MSS/1: Singleâ€Station and Singleâ€Event Marsquake Inversion. Earth and Space Science, 2020, 7, e2020EA001118.	2.6	16
21	Seismometers Within Cities: A Tool to Connect Earth Sciences and Society. Frontiers in Earth Science, 2020, 8, .	1.8	24
22	Constraints on the shallow elastic and anelastic structure of Mars from InSight seismic data. Nature Geoscience, 2020, 13, 213-220.	12.9	207
23	The seismicity of Mars. Nature Geoscience, 2020, 13, 205-212.	12.9	194
24	What can seismic noise tell us about the Alpine reactivation of the Iberian Massif? An example in the Iberian Central System. Solid Earth, 2020, 11, 2499-2513.	2.8	8
25	Characterization of Microseismic Noise in Cape Verde. Bulletin of the Seismological Society of America, 2019, 109, 1099-1109.	2.3	8
26	Lithospheric image of the Central Iberian Zone (Iberian Massif) using global-phase seismic interferometry. Solid Earth, 2019, 10, 1937-1950.	2.8	17
27	Marsâ€™ Background Free Oscillations. Space Science Reviews, 2019, 215, 1.	8.1	7
28	Shortâ€and Longâ€Term Variations in the Reykjanes Geothermal Reservoir From Seismic Noise Interferometry. Geophysical Research Letters, 2019, 46, 5788-5798.	4.0	27
29	Crustal structure beneath Tierra del Fuego, Argentina, inferred from seismic P-wave receiver functions and ambient noise autocorrelations. Tectonophysics, 2019, 751, 41-53.	2.2	12
30	ConstrainingS-wave velocity using Rayleigh wave ellipticity from polarization analysis of seismic noise. Geophysical Journal International, 2019, 216, 1817-1830.	2.4	16
31	Blind source separation of temporally independent microseisms. Geophysical Journal International, 2019, 216, 1260-1275.	2.4	4
32	Upper and Middle Crustal Velocity Structure of the Colombian Andes From Ambient Noise Tomography: Investigating Subductionâ€Related Magmatism in the Overriding Plate. Journal of Geophysical Research: Solid Earth, 2018, 123, 1459-1485.	3.4	29
33	Retrieval of Body-Wave Reflections Using Ambient Noise Interferometry Using a Small-Scale Experiment. Pure and Applied Geophysics, 2018, 175, 2009-2022.	1.9	11
34	Reverse time migration using phase crosscorrelation. Geophysics, 2018, 83, S345-S354.	2.6	7
35	Rayleigh waves from correlation of seismic noise in Great Island of Tierra del Fuego, Argentina: Constraints on upper crustal structure. Geodesy and Geodynamics, 2018, 9, 2-12.	2.2	3
36	Lowâ€Frequency Ambient Noise Autocorrelations: Waveforms and Normal Modes. Seismological Research Letters, 2018, 89, 1488-1496.	1.9	26

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37	Detecting and Locating Precursory Signals During the 2011 El Hierro, Canary Islands, Submarine Eruption. Geophysical Research Letters, 2018, 45, 10,288.	4.0	29
38	Mapping the Basement of the Ebro Basin in Spain With Seismic Ambient Noise Autocorrelations. Journal of Geophysical Research: Solid Earth, 2018, 123, 5052-5067.	3.4	43
39	Measuring Group Velocity in Seismic Noise Correlation Studies Based on Phase Coherence and Resampling Strategies. IEEE Transactions on Geoscience and Remote Sensing, 2017, 55, 1928-1935.	6.3	18
40	Ambient seismic noise tomography of SW Iberia integrating seafloor- and land-based data. Tectonophysics, 2017, 700-701, 131-149.	2.2	16
41	Microseismic noise in the Saint Peter and Saint Paul Archipelago, equatorial Atlantic. Journal of South American Earth Sciences, 2017, 80, 304-315.	1.4	3
42	The Effect of Water Column Resonance on the Spectra of Secondary Microseism P Waves. Journal of Geophysical Research: Solid Earth, 2017, 122, 8121-8142.	3.4	13
43	Extracting surface waves, hum and normal modes: time-scale phase-weighted stack and beyond. Geophysical Journal International, 2017, 211, 30-44.	2.4	44
44	Reflection response of the ParnaÃba Basin from autocorrelation of seismic ambient noise recordings. , 2017, , .		0
45	Enhancing stratigraphic and structural features in RTM-images employing phase crosscorrelation. , 2016, , .		0
46	Causes of intraplate seismicity in central Brazil from travel time seismic tomography. Tectonophysics, 2016, 680, 1-7.	2.2	17
47	Ray-theoretical modeling of secondary microseismPwaves. Geophysical Journal International, 2016, 206, 1730-1739.	2.4	44
48	Statistical redundancy of instantaneous phases: theory and application to the seismic ambient wavefield. Geophysical Journal International, 2016, 204, 1159-1163.	2.4	8
49	The tailings dam failure of 5 November 2015 in SE Brazil and its preceding seismic sequence. Geophysical Research Letters, 2016, 43, 4929-4936.	4.0	58
50	Global tomography using seismic hum. Geophysical Journal International, 2016, 204, 1222-1236.	2.4	70
51	Detection of Subtle Hydromechanical Medium Changes Caused By a Small-Magnitude Earthquake Swarm in NE Brazil. Pure and Applied Geophysics, 2016, 173, 1097-1113.	1.9	22
52	Observation of deep water microseisms in the North Atlantic Ocean using tide modulations. Geophysical Research Letters, 2015, 42, 316-322.	4.0	28
53	Sources of secondary microseisms in the Indian Ocean. Geophysical Journal International, 2015, 202, 1180-1189.	2.4	25
54	The upper-mantle transition zone beneath the Ibero-Maghrebian region as seen by teleseismic Pds phases. Tectonophysics, 2015, 663, 212-224.	2.2	16

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55	Rayleigh-Wave, Group-Velocity Tomography of the Borborema Province, NE Brazil, from Ambient Seismic Noise. Pure and Applied Geophysics, 2015, 172, 1429-1449.	1.9	25
56	How much averaging is necessary to cancel out cross-terms in noise correlation studies?. Geophysical Journal International, 2015, 203, 1096-1100.	2.4	12
57	Modelling the ocean site effect on seismic noise body waves. Geophysical Journal International, 2014, 197, 1096-1106.	2.4	74
58	Detection of microseismic compressional (P) body waves aided by numerical modeling of oceanic noise sources. Journal of Geophysical Research: Solid Earth, 2013, 118, 4312-4324.	3.4	43
59	Modelling secondary microseismic noise by normal mode summation. Geophysical Journal International, 2013, 193, 1732-1745.	2.4	86
60	Studying the 410-km and 660-km discontinuities beneath Spain and Morocco through detection of P-to-s conversions. Geophysical Journal International, 2013, 194, 920-935.	2.4	10
61	Frequencyâ€dependent noise sources in the North Atlantic Ocean. Geochemistry, Geophysics, Geosystems, 2013, 14, 5341-5353.	2.5	25
62	Monitoring medium changes in an intraplate setting with coda wave interferometry. , 2013, , .		0
63	ReconstruÃ§Ã£o do sinal sÃsmico no Nordeste do Brasil a partir de correlaÃ§Ãµes cruzadas do ruÃdo sÃsmico de ambiente. , 2013, , .		0
64	Window length selection for optimum slowness resolution of the local-slant-stack transform. Geophysics, 2012, 77, V31-V40.	2.6	12
65	Modelling long-term seismic noise in various environments. Geophysical Journal International, 2012, 191, 707-722.	2.4	104
66	The structure and kinematics of the central Taiwan mountain belt derived from geological and seismicity data. Tectonics, 2012, 31, .	2.8	43
67	How moderate sea states can generate loud seismic noise in the deep ocean. Geophysical Research Letters, 2012, 39, .	4.0	57
68	Polarized Earth's ambient microseismic noise. Geochemistry, Geophysics, Geosystems, 2011, 12, n/a-n/a.	2.5	88
69	Ocean wave sources of seismic noise. Journal of Geophysical Research, 2011, 116, .	3.3	246
70	Upper-mantle seismic structure beneath SE and Central Brazil from P- and S-wave regional traveltime tomography. Geophysical Journal International, 2011, 184, 268-286.	2.4	57
71	Using instantaneous phase coherence for signal extraction from ambient noise data at a local to a global scale. Geophysical Journal International, 2011, 184, 494-506.	2.4	194
72	Reconstruction of annual winter rainfall since A.D.1579 in central-eastern Spain based on calcite laminated sediment from Lake La Cruz. Climatic Change, 2011, 107, 343-361.	3.6	26

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73	Local Time Slowness Adaptive Filter and Optimal Window Strategies. , 2010, , .		0
74	Global climate imprint on seismic noise. Geochemistry, Geophysics, Geosystems, 2009, 10, .	2.5	112
75	The S-Transform From a Wavelet Point of View. IEEE Transactions on Signal Processing, 2008, 56, 2771-2780.	5.3	146
76	On the TT-Transform and Its Diagonal Elements. IEEE Transactions on Signal Processing, 2008, 56, 5709-5713.	5.3	27
77	The deep seismic reflection MARCONI-3 profile: Role of extensional Mesozoic structure during the Pyrenean contractional deformation at the eastern part of the Bay of Biscay. Marine and Petroleum Geology, 2008, 25, 714-730.	3.3	74
78	Authors' Reply to Comments on â€œThe Inverse S-Transform in Filters With Time-Frequency Localizationâ€• IEEE Transactions on Signal Processing, 2007, 55, 5120-5121.	5.3	11
79	The S-Transform and Its Inverses: Side Effects of Discretizing and Filtering. IEEE Transactions on Signal Processing, 2007, 55, 4928-4937.	5.3	74
80	Frequency-dependent phase coherence for noise suppression in seismic array data. Journal of Geophysical Research, 2007, 112, .	3.3	98
81	An alternative inverse S-transform for filters with time-frequency localization. Proc Int Symp Image Signal Process Anal, 2005, , .	0.0	5
82	The inverse S-transform in filters with time-frequency localization. IEEE Transactions on Signal Processing, 2005, 53, 4417-4422.	5.3	102
83	Intraplate seismicity in SE Brazil: stress concentration in lithospheric thin spots. Geophysical Journal International, 2004, 159, 390-399.	2.4	78
84	Degree of Polarization Filter for Frequency-Dependent Signal Enhancement Through Noise Suppression. Bulletin of the Seismological Society of America, 2004, 94, 1016-1035.	2.3	44
85	The use of instantaneous polarization attributes for seismic signal detection and image enhancement. Geophysical Journal International, 2003, 155, 653-668.	2.4	56
86	Seismic velocity anomalies beneath SE Brazil fromPandSwave travel time inversions. Journal of Geophysical Research, 2003, 108, .	3.3	54
87	Circadian and Ultradian Rhythmicities in Very Premature Neonates Maintained in Incubators. Biological Rhythm Research, 2002, 33, 83-112.	0.9	5
88	The Issue of Significant Features in Random Noise. Biological Rhythm Research, 2001, 32, 355-360.	0.9	3
89	Rescuing Rhythms from Noise: A New Method of Analysis. Biological Rhythm Research, 2001, 32, 271-284.	0.9	5
90	Emphasizing Difficulties in the Detection of Rhythms with Lomb-Scargle Periodograms. Biological Rhythm Research, 2001, 32, 341-346.	0.9	33

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91	Phase cross-correlations: Design, comparisons, and applications. Bulletin of the Seismological Society of America, 1999, 89, 1366-1378.	2.3	97
92	Noise reduction and detection of weak, coherent signals through phase-weighted stacks. Geophysical Journal International, 1997, 130, 497-505.	2.4	408
93	Steeply reflectedScSHprecursors from the Dâ€³ region. Journal of Geophysical Research, 1996, 101, 16077-16087.	3.3	12
94	Upper mantle structure of the Borborema Province, NE Brazil, from P-wave tomography: Implications for rheology and volcanism. Geophysical Journal International, 0, , .	2.4	6
95	Preparing for InSight: Evaluation of the Blind Test for Martian Seismicity. Seismological Research Letters, 0, , .	1.9	5
96	Towards the Processing of Large Data Volumes with Phase Crossâ€Correlation. Seismological Research Letters, 0, , .	1.9	14
97	Resultados preliminares do estudo da metodologia de tomografia sÃsmica de ruÃdo ambiental aplicada Ã escala rasa. , 0, , .		0