

Simon C Stähler

List of Publications by Year in descending order

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76
papers

3,707
citations

147726

31
h-index

138417

58
g-index

110
all docs

110
docs citations

110
times ranked

1919
citing authors

#	ARTICLE	IF	CITATIONS
1	Seismic constraints from a Mars impact experiment using InSight and Perseverance. <i>Nature Astronomy</i> , 2022, 6, 59-64.	4.2	9
2	Seismology on Mars: An analysis of direct, reflected, and converted seismic body waves with implications for interior structure. <i>Physics of the Earth and Planetary Interiors</i> , 2022, 325, 106851.	0.7	45
3	Seasonal variations of subsurface seismic velocities monitored by the SEIS-InSight seismometer on Mars. <i>Geophysical Journal International</i> , 2022, 229, 776-799.	1.0	10
4	The Far Side of Mars: Two Distant Marsquakes Detected by InSight. <i>The Seismic Record</i> , 2022, 2, 88-99.	1.3	29
5	An autonomous lunar geophysical experiment package (ALGEP) for future space missions. <i>Experimental Astronomy</i> , 2022, 54, 617-640.	1.6	2
6	Low-Frequency Marsquakes and Where to Find Them: Back Azimuth Determination Using a Polarization Analysis Approach. <i>Bulletin of the Seismological Society of America</i> , 2022, 112, 1787-1805.	1.1	24
7	Seismic Detection of Euroquakes Originating From Europa's Silicate Interior. <i>Earth and Space Science</i> , 2022, 9, .	1.1	3
8	Seismic sources of InSight marsquakes and seismotectonic context of Elysium Planitia, Mars. <i>Tectonophysics</i> , 2022, 837, 229434.	0.9	18
9	Companion guide to the marsquake catalog from InSight, Sols 0â€“478: Data content and non-seismic events. <i>Physics of the Earth and Planetary Interiors</i> , 2021, 310, 106597.	0.7	64
10	The Marsquake catalogue from InSight, sols 0â€“478. <i>Physics of the Earth and Planetary Interiors</i> , 2021, 310, 106595.	0.7	97
11	Super High Frequency Events: A New Class of Events Recorded by the InSight Seismometers on Mars. <i>Journal of Geophysical Research E: Planets</i> , 2021, 126, e2020JE006599.	1.5	19
12	The Polarization of Ambient Noise on Mars. <i>Journal of Geophysical Research E: Planets</i> , 2021, 126, e2020JE006545.	1.5	33
13	Measuring Fundamental and Higher Mode Surface Wave Dispersion on Mars From Seismic Waveforms. <i>Earth and Space Science</i> , 2021, 8, e2020EA001263.	1.1	0
14	Highâ€“Frequency Seismic Events on Mars Observed by InSight. <i>Journal of Geophysical Research E: Planets</i> , 2021, 126, e2020JE006670.	1.5	40
15	Analyzing Low Frequency Seismic Events at Cerberus Fossae as Long Period Volcanic Quakes. <i>Journal of Geophysical Research E: Planets</i> , 2021, 126, e2020JE006518.	1.5	19
16	Planetary Seismology: The Solar Systemâ€™s Ocean Worlds. , 2021, 53, .		1
17	Distributed Geophysical Exploration of Enceladus and Other Ocean Worlds. , 2021, 53, .		5
18	Listening for the Landing: Seismic Detections of Perseverance's Arrival at Mars With InSight. <i>Earth and Space Science</i> , 2021, 8, e2020EA001585.	1.1	5

#	ARTICLE	IF	CITATIONS
19	A Comodulation Analysis of Atmospheric Energy Injection Into the Ground Motion at InSight, Mars. <i>Journal of Geophysical Research E: Planets</i> , 2021, 126, e2020JE006538.	1.5	33
20	Characteristics of Current-Induced Harmonic Tremor Signals in Ocean-Bottom Seismometer Records. <i>Seismological Research Letters</i> , 2021, 92, 3100-3112.	0.8	12
21	First Focal Mechanisms of Marsquakes. <i>Journal of Geophysical Research E: Planets</i> , 2021, 126, e2020JE006546.	1.5	43
22	Magnitude Scales for Marsquakes Calibrated from InSight Data. <i>Bulletin of the Seismological Society of America</i> , 2021, 111, 3003-3015.	1.1	25
23	Seismic Velocity Variations in a 3D Martian Mantle: Implications for the InSight Measurements. <i>Journal of Geophysical Research E: Planets</i> , 2021, 126, e2020JE006755.	1.5	10
24	Thickness and structure of the martian crust from InSight seismic data. <i>Science</i> , 2021, 373, 438-443.	6.0	140
25	Upper mantle structure of Mars from InSight seismic data. <i>Science</i> , 2021, 373, 434-438.	6.0	105
26	Seismic detection of the martian core. <i>Science</i> , 2021, 373, 443-448.	6.0	169
27	Science Goals and Objectives for the Dragonfly Titan Rotorcraft Relocatable Lander. <i>Planetary Science Journal</i> , 2021, 2, 130.	1.5	80
28	A Reconstruction Algorithm for Temporally Aliased Seismic Signals Recorded by the InSight Mars Lander. <i>Earth and Space Science</i> , 2021, 8, e2020EA001234.	1.1	6
29	Potential Pitfalls in the Analysis and Structural Interpretation of Seismic Data from the Mars InSight Mission. <i>Bulletin of the Seismological Society of America</i> , 2021, 111, 2982-3002.	1.1	42
30	Resonances and Lander Modes Observed by InSight on Mars (1–9 Hz). <i>Bulletin of the Seismological Society of America</i> , 2021, 111, 2924-2950.	1.1	30
31	Visualizing Global Seismic Phases with AlpArray. <i>Seismological Research Letters</i> , 2021, 92, 3845-3855.	0.8	2
32	Seismic High-Resolution Acquisition Electronics for the NASA InSight Mission on Mars. <i>Bulletin of the Seismological Society of America</i> , 2021, 111, 2909-2923.	1.1	17
33	Resonances of the InSight Seismometer on Mars. <i>Bulletin of the Seismological Society of America</i> , 2021, 111, 2951-2963.	1.1	15
34	Energy Envelope and Attenuation Characteristics of High-Frequency (HF) and Very-High-Frequency (VF) Martian Events. <i>Bulletin of the Seismological Society of America</i> , 2021, 111, 3016-3034.	1.1	23
35	The shallow structure of Mars at the InSight landing site from inversion of ambient vibrations. <i>Nature Communications</i> , 2021, 12, 6756.	5.8	40
36	Questions to Heaven. <i>Astronomy and Geophysics</i> , 2021, 62, 6.22-6.25.	0.1	2

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37	A New Crater Near InSight: Implications for Seismic Impact Detectability on Mars. Journal of Geophysical Research E: Planets, 2020, 125, e2020JE006382.	1.5	24
38	Detection, Analysis, and Removal of Glitches From InSight's Seismic Data From Mars. Earth and Space Science, 2020, 7, e2020EA001317.	1.1	75
39	MSS/1: Single-Station and Single-Event Marsquake Inversion. Earth and Space Science, 2020, 7, e2020EA001118.	1.1	16
40	Geophysical Observations of Phobos Transits by InSight. Geophysical Research Letters, 2020, 47, e2020GL089099.	1.5	10
41	The atmosphere of Mars as observed by InSight. Nature Geoscience, 2020, 13, 190-198.	5.4	161
42	Constraints on the shallow elastic and anelastic structure of Mars from InSight seismic data. Nature Geoscience, 2020, 13, 213-220.	5.4	207
43	The seismicity of Mars. Nature Geoscience, 2020, 13, 205-212.	5.4	194
44	On-Deck Seismology: Lessons from InSight for Future Planetary Seismology. Journal of Geophysical Research E: Planets, 2020, 125, e2019JE006353.	1.5	25
45	Initial results from the InSight mission on Mars. Nature Geoscience, 2020, 13, 183-189.	5.4	274
46	Exploring planets and asteroids with 6DoF sensors: Utopia and realism. Earth, Planets and Space, 2020, 72, .	0.9	8
47	Seismology on Titan: A seismic signal and noise budget in preparation for Dragonfly. , 2020, , .		2
48	SEIS: InSight's Seismic Experiment for Internal Structure of Mars. Space Science Reviews, 2019, 215, 12.	3.7	238
49	Estimation of the Seismic Moment Rate from an Incomplete Seismicity Catalog, in the Context of the InSight Mission to Mars. Bulletin of the Seismological Society of America, 2019, 109, 1125-1147.	1.1	7
50	Seismic signal from waves on Titan's seas. Earth and Planetary Science Letters, 2019, 520, 250-259.	1.8	9
51	Sparse Reconstruction of Aliased Seismic Signals Recorded During the InSight Mars Mission. , 2019, , .		1
52	Pre-mission InSights on the Interior of Mars. Space Science Reviews, 2019, 215, 1.	3.7	85
53	The first active seismic experiment on Mars to characterize the shallow subsurface structure at the InSight landing site. , 2019, , .		10
54	Seismic Wave Propagation in Icy Ocean Worlds. Journal of Geophysical Research E: Planets, 2018, 123, 206-232.	1.5	35

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55	Expected Seismicity and the Seismic Noise Environment of Europa. <i>Journal of Geophysical Research E: Planets</i> , 2018, 123, 163-179.	1.5	38
56	Vital Signs: Seismology of Icy Ocean Worlds. <i>Astrobiology</i> , 2018, 18, 37-53.	1.5	31
57	Geophysical Investigations of Habitability in Ice-Covered Ocean Worlds. <i>Journal of Geophysical Research E: Planets</i> , 2018, 123, 180-205.	1.5	133
58	Magnitude Scales for Marsquakes. <i>Bulletin of the Seismological Society of America</i> , 2018, 108, 2764-2777.	1.1	18
59	A Self-Noise Model for the German DEPAS OBS Pool. <i>Seismological Research Letters</i> , 2018, 89, 1838-1845.	0.8	20
60	The Marsquake Service: Securing Daily Analysis of SEIS Data and Building the Martian Seismicity Catalogue for InSight. <i>Space Science Reviews</i> , 2018, 214, 1.	3.7	41
61	Impact-Seismic Investigations of the InSight Mission. <i>Space Science Reviews</i> , 2018, 214, 1.	3.7	48
62	On the Detectability and Use of Normal Modes for Determining Interior Structure of Mars. <i>Space Science Reviews</i> , 2018, 214, 1.	3.7	11
63	Clock errors in land and ocean bottom seismograms: high-accuracy estimates from multiple-component noise cross-correlations. <i>Geophysical Journal International</i> , 2018, 214, 2014-2034.	1.0	31
64	From Initial Models of Seismicity, Structure and Noise to Synthetic Seismograms for Mars. <i>Space Science Reviews</i> , 2017, 211, 595-610.	3.7	25
65	On-Demand Custom Broadband Synthetic Seismograms. <i>Seismological Research Letters</i> , 2017, 88, 1127-1140.	0.8	39
66	Fully probabilistic seismic source inversion – Part 2: Modelling errors and station covariances. <i>Solid Earth</i> , 2016, 7, 1521-1536.	1.2	21
67	The lack of equipartitioning in global body wave coda. <i>Geophysical Research Letters</i> , 2015, 42, 7483-7489.	1.5	48
68	Structural monitoring of a highway bridge using passive noise recordings from street traffic. <i>Journal of the Acoustical Society of America</i> , 2015, 138, 3864-3872.	0.5	33
69	Instaseis: instant global seismograms based on a broadband waveform database. <i>Solid Earth</i> , 2015, 6, 701-717.	1.2	111
70	AxiSEM: broadband 3-D seismic wavefields in axisymmetric media. <i>Solid Earth</i> , 2014, 5, 425-445.	1.2	205
71	Fully probabilistic seismic source inversion – Part 1: Efficient parameterisation. <i>Solid Earth</i> , 2014, 5, 1055-1069.	1.2	53
72	Requirements Engineering for Computational Seismology Software. <i>Lecture Notes in Computational Science and Engineering</i> , 2013, , 157-175.	0.1	0

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73	Triplicated P-wave measurements for waveform tomography of the mantle transition zone. Solid Earth, 2012, 3, 339-354.	1.2	29
74	Monitoring stress changes in a concrete bridge with coda wave interferometry. Journal of the Acoustical Society of America, 2011, 129, 1945-1952.	0.5	93
75	New data on direct ion storage dosimeters. Radiation Protection Dosimetry, 2007, 128, 120-123.	0.4	3
76	Performance report of the RHUM-RUM ocean bottom seismometer network around La Réunion, western Indian Ocean. Advances in Geosciences, 0, 41, 43-63.	12.0	55