

Amir Khan

List of Publications by Year in descending order

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56
papers

3,255
citations

126858

33
h-index

149623

56
g-index

59
all docs

59
docs citations

59
times ranked

1547
citing authors

#	ARTICLE	IF	CITATIONS
1	SEIS: Insight's Seismic Experiment for Internal Structure of Mars. <i>Space Science Reviews</i> , 2019, 215, 12.	3.7	238
2	Constraints on the shallow elastic and anelastic structure of Mars from InSight seismic data. <i>Nature Geoscience</i> , 2020, 13, 213-220.	5.4	207
3	The seismicity of Mars. <i>Nature Geoscience</i> , 2020, 13, 205-212.	5.4	194
4	Seismic detection of the martian core. <i>Science</i> , 2021, 373, 443-448.	6.0	169
5	Thickness and structure of the martian crust from InSight seismic data. <i>Science</i> , 2021, 373, 438-443.	6.0	140
6	A new seismic velocity model for the Moon from a Monte Carlo inversion of the Apollo lunar seismic data. <i>Geophysical Research Letters</i> , 2000, 27, 1591-1594.	1.5	129
7	An inquiry into the lunar interior: A nonlinear inversion of the Apollo lunar seismic data. <i>Journal of Geophysical Research</i> , 2002, 107, 3-1.	3.3	123
8	Upper mantle structure of Mars from InSight seismic data. <i>Science</i> , 2021, 373, 434-438.	6.0	105
9	A Geophysical Perspective on the Bulk Composition of Mars. <i>Journal of Geophysical Research E: Planets</i> , 2018, 123, 575-611.	1.5	97
10	The Marsquake catalogue from InSight, sols 0-478. <i>Physics of the Earth and Planetary Interiors</i> , 2021, 310, 106595.	0.7	97
11	Geophysical evidence for melt in the deep lunar interior and implications for lunar evolution. <i>Journal of Geophysical Research E: Planets</i> , 2014, 119, 2197-2221.	1.5	89
12	Pre-mission Insights on the Interior of Mars. <i>Space Science Reviews</i> , 2019, 215, 1.	3.7	85
13	Joint inversion of satellite-detected tidal and magnetospheric signals constrains electrical conductivity and water content of the upper mantle and transition zone. <i>Geophysical Research Letters</i> , 2017, 44, 6074-6081.	1.5	83
14	Planned Products of the Mars Structure Service for the InSight Mission to Mars. <i>Space Science Reviews</i> , 2017, 211, 611-650.	3.7	80
15	Constraining the composition and thermal state of Mars from inversion of geophysical data. <i>Journal of Geophysical Research</i> , 2008, 113, .	3.3	76
16	Detection, Analysis, and Removal of Glitches From InSight's Seismic Data From Mars. <i>Earth and Space Science</i> , 2020, 7, e2020EA001317.	1.1	75
17	Does the Moon possess a molten core? Probing the deep lunar interior using results from LLR and Lunar Prospector. <i>Journal of Geophysical Research</i> , 2004, 109, .	3.3	69
18	Companion guide to the marsquake catalog from InSight, Sols 0-478: Data content and non-seismic events. <i>Physics of the Earth and Planetary Interiors</i> , 2021, 310, 106597.	0.7	64

#	ARTICLE	IF	CITATIONS
19	Lunar Seismology: An Update on Interior Structure Models. <i>Space Science Reviews</i> , 2019, 215, 1.	3.7	60
20	The lunar moho and the internal structure of the Moon: A geophysical perspective. <i>Tectonophysics</i> , 2013, 609, 331-352.	0.9	59
21	Lunar Seismology: A Data and Instrumentation Review. <i>Space Science Reviews</i> , 2020, 216, 1.	3.7	59
22	Single-station and single-event marsquake location and inversion for structure using synthetic Martian waveforms. <i>Physics of the Earth and Planetary Interiors</i> , 2016, 258, 28-42.	0.7	56
23	On mantle chemical and thermal heterogeneities and anisotropy as mapped by inversion of global surface wave data. <i>Journal of Geophysical Research</i> , 2009, 114, .	3.3	45
24	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
25	Tidal Response of Mars Constrained From Laboratory-Based Viscoelastic Dissipation Models and Geophysical Data. <i>Journal of Geophysical Research E: Planets</i> , 2019, 124, 2703-2727.	1.5	43
26	First Focal Mechanisms of Marsquakes. <i>Journal of Geophysical Research E: Planets</i> , 2021, 126, e2020JE006546.	1.5	43
27	Geophysical and cosmochemical evidence for a volatile-rich Mars. <i>Earth and Planetary Science Letters</i> , 2022, 578, 117330.	1.8	42
28	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
29	Inversion of seismic and geodetic data for the major element chemistry and temperature of the Earth's mantle. <i>Journal of Geophysical Research</i> , 2008, 113, .	3.3	40
30	High-Frequency Seismic Events on Mars Observed by InSight. <i>Journal of Geophysical Research E: Planets</i> , 2021, 126, e2020JE006670.	1.5	40
31	New information on the deep lunar interior from an inversion of lunar free oscillation periods. <i>Geophysical Research Letters</i> , 2001, 28, 1791-1794.	1.5	39
32	The shallow elastic structure of the lunar crust: New insights from seismic wavefield gradient analysis. <i>Geophysical Research Letters</i> , 2016, 43, 10,078.	1.5	38
33	Preparing for InSight: An Invitation to Participate in a Blind Test for Martian Seismicity. <i>Seismological Research Letters</i> , 2017, 88, 1290-1302.	0.8	37
34	Uncertainty of mantle geophysical properties computed from phase equilibrium models. <i>Geophysical Research Letters</i> , 2016, 43, 5026-5034.	1.5	35
35	Improving Constraints on Planetary Interiors With PPs Receiver Functions. <i>Journal of Geophysical Research E: Planets</i> , 2021, 126, e2021JE006983.	1.5	34
36	Upper mantle compositional variations and discontinuity topography imaged beneath Australia from Bayesian inversion of surface-wave phase velocities and thermochemical modeling. <i>Journal of Geophysical Research: Solid Earth</i> , 2013, 118, 5285-5306.	1.4	33

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37	A Comodulation Analysis of Atmospheric Energy Injection Into the Ground Motion at InSight, Mars. Journal of Geophysical Research E: Planets, 2021, 126, e2020JE006538.	1.5	33
38	The Far Side of Mars: Two Distant Marsquakes Detected by InSight. The Seismic Record, 2022, 2, 88-99.	1.3	29
39	On Earth's Mantle Constitution and Structure from Joint Analysis of Geophysical and Laboratory-Based Data: An Example. Surveys in Geophysics, 2016, 37, 149-189.	2.1	26
40	Stochastic Inversion of Geomagnetic Observatory Data Including Rigorous Treatment of the Ocean Induction Effect With Implications for Transition Zone Water Content and Thermal Structure. Journal of Geophysical Research: Solid Earth, 2018, 123, 31-51.	1.4	26
41	From Initial Models of Seismicity, Structure and Noise to Synthetic Seismograms for Mars. Space Science Reviews, 2017, 211, 595-610.	3.7	25
42	Magnitude Scales for Marsquakes Calibrated from InSight Data. Bulletin of the Seismological Society of America, 2021, 111, 3003-3015.	1.1	25
43	Simulations of Seismic Wave Propagation on Mars. Space Science Reviews, 2017, 211, 571-594.	3.7	19
44	On the principal building blocks of Mars and Earth. Icarus, 2019, 322, 121-134.	1.1	19
45	Super High Frequency Events: A New Class of Events Recorded by the InSight Seismometers on Mars. Journal of Geophysical Research E: Planets, 2021, 126, e2020JE006599.	1.5	19
46	Dynamical evidence for Phobos and Deimos as remnants of a disrupted common progenitor. Nature Astronomy, 2021, 5, 539-543.	4.2	19
47	Joint Inversion of Daily and Long-Period Geomagnetic Transfer Functions Reveals Lateral Variations in Mantle Water Content. Geophysical Research Letters, 2020, 47, e2020GL087222.	1.5	17
48	MSS/1: Single-Station and Single-Event Marsquake Inversion. Earth and Space Science, 2020, 7, e2020EA001118.	1.1	16
49	Resonances of the InSight Seismometer on Mars. Bulletin of the Seismological Society of America, 2021, 111, 2951-2963.	1.1	15
50	On the Detectability and Use of Normal Modes for Determining Interior Structure of Mars. Space Science Reviews, 2018, 214, 1.	3.7	11
51	Multifrequency Inversion of Ps and Sp Receiver Functions: Methodology and Application to USArray Data. Journal of Geophysical Research: Solid Earth, 2021, 126, e2020JB020350.	1.4	10
52	Seismic Velocity Variations in a 3D Martian Mantle: Implications for the InSight Measurements. Journal of Geophysical Research E: Planets, 2021, 126, e2020JE006755.	1.5	10
53	The Global Conductivity Structure of the Lunar Upper and Midmantle. Journal of Geophysical Research E: Planets, 2021, 126, .	1.5	6
54	Stochastic Inversion of P -to- S Converted Waves for Mantle Composition and Thermal Structure: Methodology and Application. Journal of Geophysical Research: Solid Earth, 2018, 123, 10,706.	1.4	5

#	ARTICLE	IF	CITATIONS
55	The tidal-thermal evolution of the Pluto-Charon system. <i>Icarus</i> , 2022, 376, 114871.	1.1	5
56	A spectral element approach to computing normal modes. <i>Geophysical Journal International</i> , 2022, 229, 915-932.	1.0	4