

Amir Khan

List of Publications by Year in descending order

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56
papers

3,255
citations

126907

33
h-index

149698

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. Space Science Reviews, 2019, 215, 12.	8.1	238
2	Constraints on the shallow elastic and anelastic structure of Mars from InSight seismic data. Nature Geoscience, 2020, 13, 213-220.	12.9	207
3	The seismicity of Mars. Nature Geoscience, 2020, 13, 205-212.	12.9	194
4	Seismic detection of the martian core. Science, 2021, 373, 443-448.	12.6	169
5	Thickness and structure of the martian crust from InSight seismic data. Science, 2021, 373, 438-443.	12.6	140
6	A new seismic velocity model for the Moon from a Monte Carlo inversion of the Apollo lunar seismic data. Geophysical Research Letters, 2000, 27, 1591-1594.	4.0	129
7	An inquiry into the lunar interior: A nonlinear inversion of the Apollo lunar seismic data. Journal of Geophysical Research, 2002, 107, 3-1.	3.3	123
8	Upper mantle structure of Mars from InSight seismic data. Science, 2021, 373, 434-438.	12.6	105
9	A Geophysical Perspective on the Bulk Composition of Mars. Journal of Geophysical Research E: Planets, 2018, 123, 575-611.	3.6	97
10	The Marsquake catalogue from InSight, sols 0-478. Physics of the Earth and Planetary Interiors, 2021, 310, 106595.	1.9	97
11	Geophysical evidence for melt in the deep lunar interior and implications for lunar evolution. Journal of Geophysical Research E: Planets, 2014, 119, 2197-2221.	3.6	89
12	Pre-mission Insights on the Interior of Mars. Space Science Reviews, 2019, 215, 1.	8.1	85
13	Joint inversion of satellite-detected tidal and magnetospheric signals constrains electrical conductivity and water content of the upper mantle and transition zone. Geophysical Research Letters, 2017, 44, 6074-6081.	4.0	83
14	Planned Products of the Mars Structure Service for the InSight Mission to Mars. Space Science Reviews, 2017, 211, 611-650.	8.1	80
15	Constraining the composition and thermal state of Mars from inversion of geophysical data. Journal of Geophysical Research, 2008, 113, .	3.3	76
16	Detection, Analysis, and Removal of Glitches From InSight's Seismic Data From Mars. Earth and Space Science, 2020, 7, e2020EA001317.	2.6	75
17	Does the Moon possess a molten core? Probing the deep lunar interior using results from LLR and Lunar Prospector. Journal of Geophysical Research, 2004, 109, .	3.3	69
18	Companion guide to the marsquake catalog from InSight, Sols 0-478: Data content and non-seismic events. Physics of the Earth and Planetary Interiors, 2021, 310, 106597.	1.9	64

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19	Lunar Seismology: An Update on Interior Structure Models. <i>Space Science Reviews</i> , 2019, 215, 1.	8.1	60
20	The lunar moho and the internal structure of the Moon: A geophysical perspective. <i>Tectonophysics</i> , 2013, 609, 331-352.	2.2	59
21	Lunar Seismology: A Data and Instrumentation Review. <i>Space Science Reviews</i> , 2020, 216, 1.	8.1	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.	1.9	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.	1.9	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.	3.6	43
26	First Focal Mechanisms of Marsquakes. <i>Journal of Geophysical Research E: Planets</i> , 2021, 126, e2020JE006546.	3.6	43
27	Geophysical and cosmochemical evidence for a volatile-rich Mars. <i>Earth and Planetary Science Letters</i> , 2022, 578, 117330.	4.4	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.	8.1	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.	3.6	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.	4.0	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.	4.0	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.	1.9	37
34	Uncertainty of mantle geophysical properties computed from phase equilibrium models. <i>Geophysical Research Letters</i> , 2016, 43, 5026-5034.	4.0	35
35	Improving Constraints on Planetary Interiors With PPs Receiver Functions. <i>Journal of Geophysical Research E: Planets</i> , 2021, 126, e2021JE006983.	3.6	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.	3.4	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.	3.6	33
38	The Far Side of Mars: Two Distant Marsquakes Detected by InSight. The Seismic Record, 2022, 2, 88-99.	3.1	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.	4.6	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.	3.4	26
41	From Initial Models of Seismicity, Structure and Noise to Synthetic Seismograms for Mars. Space Science Reviews, 2017, 211, 595-610.	8.1	25
42	Magnitude Scales for Marsquakes Calibrated from InSight Data. Bulletin of the Seismological Society of America, 2021, 111, 3003-3015.	2.3	25
43	Simulations of Seismic Wave Propagation on Mars. Space Science Reviews, 2017, 211, 571-594.	8.1	19
44	On the principal building blocks of Mars and Earth. Icarus, 2019, 322, 121-134.	2.5	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.	3.6	19
46	Dynamical evidence for Phobos and Deimos as remnants of a disrupted common progenitor. Nature Astronomy, 2021, 5, 539-543.	10.1	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.	4.0	17
48	MSS/1: Single-Station and Single-Event Marsquake Inversion. Earth and Space Science, 2020, 7, e2020EA001118.	2.6	16
49	Resonances of the InSight Seismometer on Mars. Bulletin of the Seismological Society of America, 2021, 111, 2951-2963.	2.3	15
50	On the Detectability and Use of Normal Modes for Determining Interior Structure of Mars. Space Science Reviews, 2018, 214, 1.	8.1	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.	3.4	10
52	Seismic Velocity Variations in a 3D Martian Mantle: Implications for the InSight Measurements. Journal of Geophysical Research E: Planets, 2021, 126, e2020JE006755.	3.6	10
53	The Global Conductivity Structure of the Lunar Upper and Midmantle. Journal of Geophysical Research E: Planets, 2021, 126, .	3.6	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.	3.4	5

#	ARTICLE	IF	CITATIONS
55	The tidal-thermal evolution of the Pluto-Charon system. <i>Icarus</i> , 2022, 376, 114871.	2.5	5
56	A spectral element approach to computing normal modes. <i>Geophysical Journal International</i> , 2022, 229, 915-932.	2.4	4