Amir Khan

List of Publications by Year
in descending order

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	Geophysical and cosmochemical evidence for a volatile-rich Mars. Earth and Planetary Science Letters, 2022, 578, 117330.	1.8	42
2	The tidalâ€“thermal evolution of the Plutoâ€“Charon system. Icarus, 2022, 376, 114871.	1.1	5
3	Seismology on Mars: An analysis of direct, reflected, and converted seismic body waves with implications for interior structure. Physics of the Earth and Planetary Interiors, 2022, 325, 106851.	0.7	45
4	A spectral element approach to computing normal modes. Geophysical Journal International, 2022, 229, 915-932.	1.0	4
5	The Far Side of Mars: Two Distant Marsquakes Detected by InSight. The Seismic Record, 2022, 2, 88-99.	1.3	29
6	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.	0.7	64
7	The Marsquake catalogue from InSight, sols 0â€“478. Physics of the Earth and Planetary Interiors, 2021, 310, 106595.	0.7	97
8	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
9	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
10	Highâ€Frequency Seismic Events on Mars Observed by InSight. Journal of Geophysical Research E: Planets, 2021, 126, e2020JE006670.	1.5	40
11	Dynamical evidence for Phobos and Deimos as remnants of a disrupted common progenitor. Nature Astronomy, 2021, 5, 539-543.	4.2	19
12	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
13	First Focal Mechanisms of Marsquakes. Journal of Geophysical Research E: Planets, 2021, 126, e2020JE006546.	1.5	43
14	Magnitude Scales for Marsquakes Calibrated from InSight Data. Bulletin of the Seismological Society of America, 2021, 111, 3003-3015.	1.1	25
15	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
16	Thickness and structure of the martian crust from InSight seismic data. Science, 2021, 373, 438-443.	6.0	140
17	Upper mantle structure of Mars from InSight seismic data. Science, 2021, 373, 434-438.	6.0	105
18	Seismic detection of the martian core. Science, 2021, 373, 443-448.	6.0	169

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19	The Global Conductivity Structure of the Lunar Upper and Midmantle. Journal of Geophysical Research E: Planets, 2021, 126, .	1.5	6
20	Improving Constraints on Planetary Interiors With PPs Receiver Functions. Journal of Geophysical Research E: Planets, 2021, 126, e2021JE006983.	1.5	34
21	Resonances of the InSight Seismometer on Mars. Bulletin of the Seismological Society of America, 2021, 111, 2951-2963.	1.1	15
22	Lunar Seismology: A Data and Instrumentation Review. Space Science Reviews, 2020, 216, 1.	3.7	59
23	Detection, Analysis, and Removal of Glitches From InSight's Seismic Data From Mars. Earth and Space Science, 2020, 7, e2020EA001317.	1.1	75
24	MSS/1: Singleâ€Station and Singleâ€Event Marsquake Inversion. Earth and Space Science, 2020, 7, e2020EA001118.	1.1	16
25	Constraints on the shallow elastic and anelastic structure of Mars from InSight seismic data. Nature Geoscience, 2020, 13, 213-220.	5.4	207
26	The seismicity of Mars. Nature Geoscience, 2020, 13, 205-212.	5.4	194
27	Joint Inversion of Daily and Longâ€Period Geomagnetic Transfer Functions Reveals Lateral Variations in Mantle Water Content. Geophysical Research Letters, 2020, 47, e2020GL087222.	1.5	17
28	Tidal Response of Mars Constrained From Laboratoryâ€Based Viscoelastic Dissipation Models and Geophysical Data. Journal of Geophysical Research E: Planets, 2019, 124, 2703-2727.	1.5	43
29	Lunar Seismology: An Update on Interior Structure Models. Space Science Reviews, 2019, 215, 1.	3.7	60
30	SEIS: Insightâ€™s Seismic Experiment for Internal Structure of Mars. Space Science Reviews, 2019, 215, 12.	3.7	238
31	On the principal building blocks of Mars and Earth. Icarus, 2019, 322, 121-134.	1.1	19
32	Pre-mission InSights on the Interior of Mars. Space Science Reviews, 2019, 215, 1.	3.7	85
33	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
34	A Geophysical Perspective on the Bulk Composition of Mars. Journal of Geophysical Research E: Planets, 2018, 123, 575-611.	1.5	97
35	Stochastic Inversion of Pâ€toâ€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
36	The Marsquake Service: Securing Daily Analysis of SEIS Data and Building the Martian Seismicity Catalogue for InSight. Space Science Reviews, 2018, 214, 1.	3.7	41

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37	On the Detectability and Use of Normal Modes for Determining Interior Structure of Mars. Space Science Reviews, 2018, 214, 1.	3.7	11
38	Planned Products of the Mars Structure Service for the InSight Mission to Mars. Space Science Reviews, 2017, 211, 611-650.	3.7	80
39	Simulations of Seismic Wave Propagation on Mars. Space Science Reviews, 2017, 211, 571-594.	3.7	19
40	Preparing for InSight: An Invitation to Participate in a Blind Test for Martian Seismicity. Seismological Research Letters, 2017, 88, 1290-1302.	0.8	37
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	Joint inversion of satelliteâ€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.	1.5	83
43	Single-station and single-event marsquake location and inversion for structure using synthetic Martian waveforms. Physics of the Earth and Planetary Interiors, 2016, 258, 28-42.	0.7	56
44	The shallow elastic structure of the lunar crust: New insights from seismic wavefield gradient analysis. Geophysical Research Letters, 2016, 43, 10,078.	1.5	38
45	Uncertainty of mantle geophysical properties computed from phase equilibrium models. Geophysical Research Letters, 2016, 43, 5026-5034.	1.5	35
46	On Earthâ€™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
47	Geophysical evidence for melt in the deep lunar interior and implications for lunar evolution. Journal of Geophysical Research E: Planets, 2014, 119, 2197-2221.	1.5	89
48	The lunar moho and the internal structure of the Moon: A geophysical perspective. Tectonophysics, 2013, 609, 331-352.	0.9	59
49	Upper mantle compositional variations and discontinuity topography imaged beneath Australia from Bayesian inversion of surfaceâ€wave phase velocities and thermochemical modeling. Journal of Geophysical Research: Solid Earth, 2013, 118, 5285-5306.	1.4	33
50	On mantle chemical and thermal heterogeneities and anisotropy as mapped by inversion of global surface wave data. Journal of Geophysical Research, 2009, 114, .	3.3	45
51	Inversion of seismic and geodetic data for the major element chemistry and temperature of the Earth's mantle. Journal of Geophysical Research, 2008, 113, .	3.3	40
52	Constraining the composition and thermal state of Mars from inversion of geophysical data. Journal of Geophysical Research, 2008, 113, .	3.3	76
53	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
54	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

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55	New information on the deep lunar interior from an inversion of lunar free oscillation periods. Geophysical Research Letters, 2001, 28, 1791-1794.	1.5	39
56	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.	1.5	129