

Naomi Murdoch

List of Publications by Year in descending order

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Version: 2024-02-01

75
papers

3,726
citations

147726

31
h-index

128225

60
g-index

84
all docs

84
docs citations

84
times ranked

2460
citing authors

#	ARTICLE	IF	CITATIONS
1	Thermal fatigue as the origin of regolith on small asteroids. <i>Nature</i> , 2014, 508, 233-236.	13.7	280
2	Initial results from the InSight mission on Mars. <i>Nature Geoscience</i> , 2020, 13, 183-189.	5.4	274
3	SEIS: InSight's Seismic Experiment for Internal Structure of Mars. <i>Space Science Reviews</i> , 2019, 215, 12.	3.7	238
4	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
5	The seismicity of Mars. <i>Nature Geoscience</i> , 2020, 13, 205-212.	5.4	194
6	The atmosphere of Mars as observed by InSight. <i>Nature Geoscience</i> , 2020, 13, 190-198.	5.4	161
7	The SuperCam Instrument Suite on the NASA Mars 2020 Rover: Body Unit and Combined System Tests. <i>Space Science Reviews</i> , 2021, 217, 4.	3.7	160
8	The SuperCam Instrument Suite on the Mars 2020 Rover: Science Objectives and Mast-Unit Description. <i>Space Science Reviews</i> , 2021, 217, 1.	3.7	131
9	European component of the AIDA mission to a binary asteroid: Characterization and interpretation of the impact of the DART mission. <i>Advances in Space Research</i> , 2018, 62, 2261-2272.	1.2	118
10	Geology of the InSight landing site on Mars. <i>Nature Communications</i> , 2020, 11, 1014.	5.8	107
11	Atmospheric Science with InSight. <i>Space Science Reviews</i> , 2018, 214, 1.	3.7	88
12	The ESA Hera Mission: Detailed Characterization of the DART Impact Outcome and of the Binary Asteroid (65803) Didymos. <i>Planetary Science Journal</i> , 2022, 3, 160.	1.5	82
13	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
14	Geology and Physical Properties Investigations by the InSight Lander. <i>Space Science Reviews</i> , 2018, 214, 1.	3.7	77
15	The Noise Model of the SEIS Seismometer of the InSight Mission to Mars. <i>Space Science Reviews</i> , 2017, 211, 383-428.	3.7	73
16	Evaluating the Wind-Induced Mechanical Noise on the InSight Seismometers. <i>Space Science Reviews</i> , 2017, 211, 429-455.	3.7	65
17	Numerical simulations of granular dynamics: I. Hard-sphere discrete element method and tests. <i>Icarus</i> , 2011, 212, 427-437.	1.1	61
18	Granular Convection in Microgravity. <i>Physical Review Letters</i> , 2013, 110, 018307.	2.9	58

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19	A Pre-Landing Assessment of Regolith Properties at the InSight Landing Site. <i>Space Science Reviews</i> , 2018, 214, 1.	3.7	58
20	Listening to laser sparks: a link between Laser-Induced Breakdown Spectroscopy, acoustic measurements and crater morphology. <i>Spectrochimica Acta, Part B: Atomic Spectroscopy</i> , 2019, 153, 50-60.	1.5	57
21	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
22	Direct observations of asteroid interior and regolith structure: Science measurement requirements. <i>Advances in Space Research</i> , 2018, 62, 2141-2162.	1.2	54
23	Estimations of the Seismic Pressure Noise on Mars Determined from Large Eddy Simulations and Demonstration of Pressure Decorrelation Techniques for the InSight Mission. <i>Space Science Reviews</i> , 2017, 211, 457-483.	3.7	53
24	The dynamic atmospheric and aeolian environment of Jezero crater, Mars. <i>Science Advances</i> , 2022, 8, .	4.7	47
25	A Study of Daytime Convective Vortices and Turbulence in the Martian Planetary Boundary Layer Based on Half a Year of InSight Atmospheric Measurements and Large Eddy Simulations. <i>Journal of Geophysical Research E: Planets</i> , 2021, 126, .	1.5	45
26	Subsurface Structure at the InSight Landing Site From Compliance Measurements by Seismic and Meteorological Experiments. <i>Journal of Geophysical Research E: Planets</i> , 2020, 125, e2020JE006387.	1.5	44
27	Seismometer Detection of Dust Devil Vortices by Ground Tilt. <i>Bulletin of the Seismological Society of America</i> , 2015, 105, 3015-3023.	1.1	39
28	Field Measurements of Terrestrial and Martian Dust Devils. <i>Space Science Reviews</i> , 2016, 203, 39-87.	3.7	39
29	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
30	The Polarization of Ambient Noise on Mars. <i>Journal of Geophysical Research E: Planets</i> , 2021, 126, e2020JE006545.	1.5	33
31	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
32	Laser-induced breakdown spectroscopy acoustic testing of the Mars 2020 microphone. <i>Planetary and Space Science</i> , 2019, 165, 260-271.	0.9	32
33	Small Solar System Bodies as granular media. <i>Astronomy and Astrophysics Review</i> , 2019, 27, 1.	9.1	31
34	Pressure Effects on the SEIS in InSight Instrument, Improvement of Seismic Records, and Characterization of Long Period Atmospheric Waves From Ground Displacements. <i>Journal of Geophysical Research E: Planets</i> , 2020, 125, e2019JE006278.	1.5	31
35	Seasonal Variability of the Daytime and Nighttime Atmospheric Turbulence Experienced by InSight on Mars. <i>Geophysical Research Letters</i> , 2021, 48, e2021GL095453.	1.5	31
36	Monitoring of Dust Devil Tracks Around the InSight Landing Site, Mars, and Comparison With In Situ Atmospheric Data. <i>Geophysical Research Letters</i> , 2020, 47, e2020GL087234.	1.5	30

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37	Resonances and Lander Modes Observed by InSight on Mars (1â€“9ÂHz). Bulletin of the Seismological Society of America, 2021, 111, 2924-2950.	1.1	30
38	In situ recording of Mars soundscape. Nature, 2022, 605, 653-658.	13.7	30
39	Granular shear flow in varying gravitational environments. Granular Matter, 2013, 15, 129-137.	1.1	27
40	Onâ€œDeck Seismology: Lessons from InSight for Future Planetary Seismology. Journal of Geophysical Research E: Planets, 2020, 125, e2019JE006353.	1.5	25
41	Vortexâ€œDominated Aeolian Activity at InSight's Landing Site, Part 1: Multiâ€œInstrument Observations, Analysis, and Implications. Journal of Geophysical Research E: Planets, 2021, 126, e2020JE006757.	1.5	23
42	Lander and rover histories of dust accumulation on and removal from solar arrays on Mars. Planetary and Space Science, 2021, 207, 105337.	0.9	23
43	A Numerical Model of the SEIS Leveling System Transfer Matrix and Resonances: Application to SEIS Rotational Seismology and Dynamic Ground Interaction. Space Science Reviews, 2018, 214, 1.	3.7	22
44	Asteroid Surface Geophysics. , 2015, , .		21
45	Seismic Coupling of Short-Period Wind Noise Through Marsâ€™ Regolith for NASAâ€™s InSight Lander. Space Science Reviews, 2017, 211, 485-500.	3.7	20
46	The MMX rover: performing in situ surface investigations on Phobos. Earth, Planets and Space, 2022, 74, .	0.9	20
47	Micro-meteoroid seismic uplift and regolith concentration on kilometeric scale asteroids. Icarus, 2015, 253, 159-168.	1.1	18
48	CASTAway: An asteroid main belt tour and survey. Advances in Space Research, 2018, 62, 1998-2025.	1.2	18
49	Simulating regoliths in microgravity. Monthly Notices of the Royal Astronomical Society, 2013, 433, 506-514.	1.6	16
50	Probing the internal structure of the asteroid Didymoon with a passive seismic investigation. Planetary and Space Science, 2017, 144, 89-105.	0.9	16
51	Flexible Mode Modelling of the InSight Lander and Consequences for the SEIS Instrument. Space Science Reviews, 2018, 214, 1.	3.7	16
52	MSS/1: Singleâ€œStation and Singleâ€œEvent Marsquake Inversion. Earth and Space Science, 2020, 7, e2020EA001118.	1.1	16
53	Constraining Martian Regolith and Vortex Parameters From Combined Seismic and Meteorological Measurements. Journal of Geophysical Research E: Planets, 2021, 126, e2020JE006410.	1.5	16
54	Surface environment of Phobos and Phobos simulant UTPS. Earth, Planets and Space, 2021, 73, .	0.9	15

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55	A novel facility for reduced-gravity testing: A setup for studying low-velocity collisions into granular surfaces. <i>Review of Scientific Instruments</i> , 2016, 87, 084504.	0.6	13
56	Validating N-body code chrono for granular DEM simulations in reduced-gravity environments. <i>Monthly Notices of the Royal Astronomical Society</i> , 2020, 498, 1062-1079.	1.6	13
57	Low-velocity impacts into granular material: application to small-body landing. <i>Monthly Notices of the Royal Astronomical Society</i> , 2021, 503, 3460-3471.	1.6	13
58	Experimental Wind Characterization with the SuperCam Microphone under a Simulated martian Atmosphere. <i>Icarus</i> , 2021, 354, 114060.	1.1	12
59	An experimental study of low-velocity impacts into granular material in reduced gravity. <i>Monthly Notices of the Royal Astronomical Society</i> , 0, , stw3391.	1.6	10
60	Influence of Body Waves, Instrumentation Resonances, and Prior Assumptions on Rayleigh Wave Ellipticity Inversion for Shallow Structure at the InSight Landing Site. <i>Space Science Reviews</i> , 2018, 214, 1.	3.7	10
61	Numerical simulations of granular dynamics II: Particle dynamics in a shaken granular material. <i>Icarus</i> , 2012, 219, 321-335.	1.1	8
62	Exploring planets and asteroids with 6DoF sensors: Utopia and realism. <i>Earth, Planets and Space</i> , 2020, 72, .	0.9	8
63	Search for Infrasound Signals in InSight Data Using Coupled Pressure/Ground Deformation Methods. <i>Bulletin of the Seismological Society of America</i> , 2021, 111, 3055-3064.	1.1	8
64	The influence of gravity on granular impacts. <i>Astronomy and Astrophysics</i> , 2021, 656, A97.	2.1	8
65	Near-Field Seismic Propagation and Coupling Through Mars's Regolith: Implications for the InSight Mission. <i>Space Science Reviews</i> , 2018, 214, 1.	3.7	7
66	The Site Tilt and Lander Transfer Function from the Short-Period Seismometer of InSight on Mars. <i>Bulletin of the Seismological Society of America</i> , 2021, 111, 2889-2908.	1.1	7
67	Spectral Analysis of the Martian Atmospheric Turbulence: InSight Observations. <i>Geophysical Research Letters</i> , 2022, 49, .	1.5	7
68	Preparing for InSight: Evaluation of the Blind Test for Martian Seismicity. <i>Seismological Research Letters</i> , 0, , .	0.8	5
69	The influence of gravity on granular impacts. <i>Astronomy and Astrophysics</i> , 2022, 658, A118.	2.1	5
70	Investigation of magnetic field signals during vortex-induced pressure drops at InSight. <i>Planetary and Space Science</i> , 2022, 217, 105487.	0.9	3
71	AIDA: Asteroid Impact and Deflection Assessment. <i>Proceedings of the International Astronomical Union</i> , 2012, 10, 480-480.	0.0	2
72	Publisher's Note: Granular Convection in Microgravity [<i>Phys. Rev. Lett.</i> 110, 018307 (2013)]. <i>Physical Review Letters</i> , 2013, 110, .	2.9	2

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73	Isolation of Seismic Signal from InSight/SEIS-SP Microseismometer Measurements. Space Science Reviews, 2018, 214, 1.	3.7	2
74	Small solar system bodies as granular systems. EPJ Web of Conferences, 2017, 140, 14011.	0.1	1
75	Measuring Fundamental and Higher Mode Surface Wave Dispersion on Mars From Seismic Waveforms. Earth and Space Science, 2021, 8, e2020EA001263.	1.1	0