

Thomas R Watters

List of Publications by Year in descending order

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67
papers

5,383
citations

87888

38
h-index

106344

65
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67
all docs

67
docs citations

67
times ranked

1970
citing authors

#	ARTICLE	IF	CITATIONS
1	Lunar Wrinkle Ridges and the Evolution of the Nearside Lithosphere. Journal of Geophysical Research E: Planets, 2022, 127, .	3.6	9
2	The Lunar Geophysical Network Landing Sites Science Rationale. Planetary Science Journal, 2022, 3, 40.	3.6	7
3	Topography of nearside mare graben: Implications for dike-induced or passive extension formation. Icarus, 2021, 354, 114039.	2.5	6
4	Dielectric Properties of the Medusae Fossae Formation and Implications for Ice Content. Journal of Geophysical Research E: Planets, 2021, 126, e2020JE006601.	3.6	15
5	A case for limited global contraction of Mercury. Communications Earth & Environment, 2021, 2, 9.	6.8	12
6	Mercury's Crustal Thickness and Contractual Strain. Geophysical Research Letters, 2021, 48, e2021GL093528.	4.0	7
7	Provenance of Block Fields Along Lunar Wrinkle Ridges. Journal of Geophysical Research E: Planets, 2019, 124, 2970-2982.	3.6	10
8	Shallow seismic activity and young thrust faults on the Moon. Nature Geoscience, 2019, 12, 411-417.	12.9	64
9	Wrinkle ridges on Mercury and the Moon within and outside of mascons. Icarus, 2019, 331, 226-237.	2.5	16
10	Evidence for recent and ancient faulting at Mare Frigoris and implications for lunar tectonic evolution. Icarus, 2019, 326, 151-161.	2.5	13
11	How old are lunar lobate scarps? 1. Seismic resetting of crater size-frequency distributions. Icarus, 2018, 306, 225-242.	2.5	39
12	Radar sounder evidence of thick, porous sediments in Meridiani Planum and implications for ice-filled deposits on Mars. Geophysical Research Letters, 2017, 44, 9208-9215.	4.0	12
13	Toward high-resolution global topography of Mercury from MESSENGER orbital stereo imaging: A prototype model for the H6 (Kuiper) quadrangle. Planetary and Space Science, 2017, 142, 26-37.	1.7	18
14	Recent tectonic activity on Mercury revealed by small thrust fault scarps. Nature Geoscience, 2016, 9, 743-747.	12.9	31
15	Fault-bound valley associated with the Rembrandt basin on Mercury. Geophysical Research Letters, 2016, 43, 11,536.	4.0	8
16	Phase compensation of MARSIS subsurface sounding data and estimation of ionospheric properties: New insights from SHARAD results. Journal of Geophysical Research E: Planets, 2016, 121, 180-193.	3.6	18
17	Distribution of large-scale contractional tectonic landforms on Mercury: Implications for the origin of global stresses. Geophysical Research Letters, 2015, 42, 3755-3763.	4.0	29
18	Duration of activity on lobate scarp thrust faults on Mercury. Journal of Geophysical Research E: Planets, 2015, 120, 1751-1762.	3.6	41

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19	Small-scale lunar graben: Distribution, dimensions, and formation processes. <i>Icarus</i> , 2015, 252, 95-106.	2.5	21
20	Global thrust faulting on the Moon and the influence of tidal stresses. <i>Geology</i> , 2015, 43, 851-854.	4.4	56
21	Stratigraphy of the Caloris basin, Mercury: Implications for volcanic history and basin impact melt. <i>Icarus</i> , 2015, 250, 413-429.	2.5	49
22	Mercury's global contraction much greater than earlier estimates. <i>Nature Geoscience</i> , 2014, 7, 301-307.	12.9	181
23	The distribution and origin of smooth plains on Mercury. <i>Journal of Geophysical Research E: Planets</i> , 2013, 118, 891-907.	3.6	193
24	Insights into the subsurface structure of the Caloris basin, Mercury, from assessments of mechanical layering and changes in long-wavelength topography. <i>Journal of Geophysical Research E: Planets</i> , 2013, 118, 2030-2044.	3.6	37
25	Deformation associated with ghost craters and basins in volcanic smooth plains on Mercury: Strain analysis and implications for plains evolution. <i>Journal of Geophysical Research</i> , 2012, 117, .	3.3	37
26	On the origin of graben and ridges within and near volcanically buried craters and basins in Mercury's northern plains. <i>Journal of Geophysical Research</i> , 2012, 117, .	3.3	30
27	Recent extensional tectonics on the Moon revealed by the Lunar Reconnaissance Orbiter Camera. <i>Nature Geoscience</i> , 2012, 5, 181-185.	12.9	83
28	Thrust faults and the near-surface strength of asteroid 433 Eros. <i>Geophysical Research Letters</i> , 2011, 38, n/a-n/a.	4.0	20
29	Flood Volcanism in the Northern High Latitudes of Mercury Revealed by MESSENGER. <i>Science</i> , 2011, 333, 1853-1856.	12.6	225
30	Stereo topographic models of Mercury after three MESSENGER flybys. <i>Planetary and Space Science</i> , 2011, 59, 1910-1917.	1.7	57
31	The morphology of Mercury's Caloris basin as seen in MESSENGER stereo topographic models. <i>Icarus</i> , 2010, 209, 230-238.	2.5	41
32	Interpretation and analysis of planetary structures. <i>Journal of Structural Geology</i> , 2010, 32, 855-875.	2.3	71
33	Accommodation of lithospheric shortening on Mercury from altimetric profiles of ridges and lobate scarps measured during MESSENGER flybys 1 and 2. <i>Icarus</i> , 2010, 209, 247-255.	2.5	29
34	Evidence for Young Volcanism on Mercury from the Third MESSENGER Flyby. <i>Science</i> , 2010, 329, 668-671.	12.6	118
35	Geology of the Martian crustal dichotomy boundary: Age, modifications, and implications for modeling efforts. <i>Journal of Geophysical Research</i> , 2010, 115, .	3.3	16
36	Evidence of Recent Thrust Faulting on the Moon Revealed by the Lunar Reconnaissance Orbiter Camera. <i>Science</i> , 2010, 329, 936-940.	12.6	135

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37	The tectonics of Mercury. , 2009, , 15-80.		13
38	Lunar tectonics. , 2009, , 121-182.		13
39	Shallow radar (SHARAD) sounding observations of the Medusae Fossae Formation, Mars. Icarus, 2009, 199, 295-302.	2.5	102
40	The tectonics of Mercury: The view after MESSENGER's first flyby. Earth and Planetary Science Letters, 2009, 285, 283-296.	4.4	135
41	Could Pantheon Fossae be the result of the Apollodorus crater-forming impact within the Caloris basin, Mercury?. Earth and Planetary Science Letters, 2009, 285, 320-327.	4.4	27
42	Emplacement and tectonic deformation of smooth plains in the Caloris basin, Mercury. Earth and Planetary Science Letters, 2009, 285, 309-319.	4.4	53
43	Evolution of the Rembrandt Impact Basin on Mercury. Science, 2009, 324, 618-621.	12.6	46
44	The Evolution of Mercury's Crust: A Global Perspective from MESSENGER. Science, 2009, 324, 613-618.	12.6	194
45	Geology of the Caloris Basin, Mercury: A View from MESSENGER. Science, 2008, 321, 73-76.	12.6	140
46	Reflectance and Color Variations on Mercury: Regolith Processes and Compositional Heterogeneity. Science, 2008, 321, 66-69.	12.6	167
47	Volcanism on Mercury: Evidence from the First MESSENGER Flyby. Science, 2008, 321, 69-72.	12.6	169
48	Return to Mercury: A Global Perspective on MESSENGER's First Mercury Flyby. Science, 2008, 321, 59-62.	12.6	170
49	Radar Sounding of the Medusae Fossae Formation Mars: Equatorial Ice or Dry, Low-Density Deposits?. Science, 2007, 318, 1125-1128.	12.6	143
50	Subsurface Radar Sounding of the South Polar Layered Deposits of Mars. Science, 2007, 316, 92-95.	12.6	330
51	Hemispheres Apart: The Crustal Dichotomy on Mars. Annual Review of Earth and Planetary Sciences, 2007, 35, 621-652.	11.0	83
52	The Mercury Dual Imaging System on the MESSENGER Spacecraft. Space Science Reviews, 2007, 131, 247-338.	8.1	242
53	MARSIS radar sounder evidence of buried basins in the northern lowlands of Mars. Nature, 2006, 444, 905-908.	27.8	55
54	Radar Soundings of the Subsurface of Mars. Science, 2005, 310, 1925-1928.	12.6	327

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55	Extensional troughs in the Caloris Basin of Mercury: Evidence of lateral crustal flow. <i>Geology</i> , 2005, 33, 669.	4.4	34
56	Elastic dislocation modeling of wrinkle ridges on Mars. <i>Icarus</i> , 2004, 171, 284-294.	2.5	61
57	Thrust faults and the global contraction of Mercury. <i>Geophysical Research Letters</i> , 2004, 31, .	4.0	70
58	Thrust faults along the dichotomy boundary in the eastern hemisphere of Mars. <i>Journal of Geophysical Research</i> , 2003, 108, .	3.3	106
59	The mechanical and thermal structure of Mercury's early lithosphere. <i>Geophysical Research Letters</i> , 2002, 29, 37-1.	4.0	79
60	Forward mechanical modeling of the Amenthes Rupes Thrust Fault on Mars. <i>Geophysical Research Letters</i> , 2001, 28, 4659-4662.	4.0	99
61	Displacement-length relations of thrust faults associated with lobate scarps on Mercury and Mars: Comparison with terrestrial faults. <i>Geophysical Research Letters</i> , 2000, 27, 3659-3662.	4.0	75
62	Topography of lobate scarps on Mercury: New constraints on the planet's contraction. <i>Geology</i> , 1998, 26, 991.	4.4	123
63	Radar and photoclinometric studies of wrinkle ridges on Mars. <i>Journal of Geophysical Research</i> , 1997, 102, 10889-10903.	3.3	37
64	Compressional tectonism on Mars. <i>Journal of Geophysical Research</i> , 1993, 98, 17049-17060.	3.3	210
65	System of tectonic features common to Earth, Mars, and Venus. <i>Geology</i> , 1992, 20, 609.	4.4	31
66	Origin of periodically spaced wrinkle ridges on the Tharsis Plateau of Mars. <i>Journal of Geophysical Research</i> , 1991, 96, 15599-15616.	3.3	109
67	Wrinkle ridge assemblages on the terrestrial planets. <i>Journal of Geophysical Research</i> , 1988, 93, 10236-10254.	3.3	186