

# William B Mckinnon

## List of Publications by Year in descending order

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Version: 2024-02-01

61  
papers

3,211  
citations

159525

30  
h-index

149623

56  
g-index

65  
all docs

65  
docs citations

65  
times ranked

2028  
citing authors

#	ARTICLE	IF	CITATIONS
1	The Pluto system: Initial results from its exploration by New Horizons. <i>Science</i> , 2015, 350, aad1815.	6.0	407
2	The geology of Pluto and Charon through the eyes of New Horizons. <i>Science</i> , 2016, 351, 1284-1293.	6.0	219
3	The atmosphere of Pluto as observed by New Horizons. <i>Science</i> , 2016, 351, aad8866.	6.0	201
4	Impact craters on Pluto and Charon indicate a deficit of small Kuiper belt objects. <i>Science</i> , 2019, 363, 955-959.	6.0	116
5	Initial results from the New Horizons exploration of 2014 MU <sub>69</sub> , a small Kuiper Belt object. <i>Science</i> , 2019, 364, .	6.0	113
6	Reorientation of Sputnik Planitia implies a subsurface ocean on Pluto. <i>Nature</i> , 2016, 540, 94-96.	13.7	108
7	Effect of Enceladus's rapid synchronous spin on interpretation of Cassini gravity. <i>Geophysical Research Letters</i> , 2015, 42, 2137-2143.	1.5	105
8	Mean radius and shape of Pluto and Charon from New Horizons images. <i>Icarus</i> , 2017, 287, 12-29.	1.1	105
9	Convection in a volatile nitrogen-ice-rich layer drives Pluto's geological vigour. <i>Nature</i> , 2016, 534, 82-85.	13.7	102
10	Origin of the Pluto-Charon system: Constraints from the New Horizons flyby. <i>Icarus</i> , 2017, 287, 2-11.	1.1	99
11	Sulfate Content of Europa's Ocean and Shell: Evolutionary Considerations and Some Geological and Astrobiological Implications. <i>Astrobiology</i> , 2003, 3, 879-897.	1.5	95
12	The solar nebula origin of (486958) Arrokoth, a primordial contact binary in the Kuiper Belt. <i>Science</i> , 2020, 367, .	6.0	79
13	The geology and geophysics of Kuiper Belt object (486958) Arrokoth. <i>Science</i> , 2020, 367, .	6.0	76
14	Basins, fractures and volcanoes: Global cartography and topography of Pluto from New Horizons. <i>Icarus</i> , 2018, 314, 400-433.	1.1	75
15	The Pluto System After <i>New Horizons</i> . <i>Annual Review of Astronomy and Astrophysics</i> , 2018, 56, 357-392.	8.1	72
16	Impact and cratering rates onto Pluto. <i>Icarus</i> , 2015, 258, 267-288.	1.1	70
17	On convection in ice I shells of outer Solar System bodies, with detailed application to Callisto. <i>Icarus</i> , 2006, 183, 435-450.	1.1	69
18	Elastoviscoplastic relaxation of impact crater topography with application to Ganymede and Callisto. <i>Journal of Geophysical Research</i> , 2006, 111, .	3.3	64

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19	Color, composition, and thermal environment of Kuiper Belt object (486958) Arrokoth. <i>Science</i> , 2020, 367, .	6.0	64
20	Craters of the Pluto-Charon system. <i>Icarus</i> , 2017, 287, 187-206.	1.1	59
21	Geological mapping of Sputnik Planitia on Pluto. <i>Icarus</i> , 2017, 287, 261-286.	1.1	52
22	Sublimation as a landform-shaping process on Pluto. <i>Icarus</i> , 2017, 287, 320-333.	1.1	51
23	Evolution of Icy Satellites. <i>Space Science Reviews</i> , 2010, 153, 447-484.	3.7	49
24	Detection of ammonia on Pluto's surface in a region of geologically recent tectonism. <i>Science Advances</i> , 2019, 5, eaav5731.	4.7	49
25	Bladed Terrain on Pluto: Possible origins and evolution. <i>Icarus</i> , 2018, 300, 129-144.	1.1	47
26	Estimates of comet fragment masses from impact crater chains on Callisto and Ganymede. <i>Geophysical Research Letters</i> , 1995, 22, 1829-1832.	1.5	46
27	Recent cryovolcanism in Virgil Fossae on Pluto. <i>Icarus</i> , 2019, 330, 155-168.	1.1	45
28	Present and past glaciation on Pluto. <i>Icarus</i> , 2017, 287, 287-300.	1.1	43
29	New Horizons Observations of the Cosmic Optical Background. <i>Astrophysical Journal</i> , 2021, 906, 77.	1.6	42
30	Secondary craters from large impacts on Europa and Ganymede: Ejecta size-velocity distributions on icy worlds, and the scaling of ejected blocks. <i>Icarus</i> , 2013, 226, 865-884.	1.1	37
31	Anomalous Flux in the Cosmic Optical Background Detected with New Horizons Observations. <i>Astrophysical Journal Letters</i> , 2022, 927, L8.	3.0	32
32	Charon tectonics. <i>Icarus</i> , 2017, 287, 161-174.	1.1	30
33	Breaking up is hard to do: Global cartography and topography of Pluto's mid-sized icy Moon Charon from New Horizons. <i>Icarus</i> , 2018, 315, 124-145.	1.1	29
34	Icy Satellites of Saturn: Impact Cratering and Age Determination. , 2009, , 613-635.		29
35	Constraining the heat flux between Enceladus' tiger stripes: Numerical modeling of funicular plains formation. <i>Icarus</i> , 2015, 260, 232-245.	1.1	27
36	Crater Density Predictions for New Horizons Flyby Target 2014 MU69. <i>Astrophysical Journal Letters</i> , 2019, 872, L5.	3.0	26

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37	Pluto: Pits and mantles on uplands north and east of Sputnik Planitia. <i>Icarus</i> , 2017, 293, 218-230.	1.1	24
38	Viscous relaxation of Ganymede's impact craters: Constraints on heat flux. <i>Icarus</i> , 2017, 296, 275-288.	1.1	22
39	Orbital Behavior of Captured Satellites: The Effect of Solar Gravity on Triton's Post-Capture Orbit. <i>Icarus</i> , 1995, 114, 1-20.	1.1	20
40	The shape of Enceladus as explained by an irregular core: Implications for gravity, libration, and survival of its subsurface ocean. <i>Journal of Geophysical Research E: Planets</i> , 2013, 118, 1775-1788.	1.5	19
41	Faster paleospin and deep-seated uncompensated mass as possible explanations for Ceres' present-day shape and gravity. <i>Icarus</i> , 2018, 299, 430-442.	1.1	18
42	The Geophysical Environment of (486958) Arrokoth: A Small Kuiper Belt Object Explored by New Horizons. <i>Journal of Geophysical Research E: Planets</i> , 2022, 127, .	1.5	18
43	Large-scale cryovolcanic resurfacing on Pluto. <i>Nature Communications</i> , 2022, 13, 1542.	5.8	15
44	A Predicted Dearth of Majority Hypervolatile Ices in Oort Cloud Comets. <i>Planetary Science Journal</i> , 2022, 3, 112.	1.5	15
45	Great Expectations: Plans and Predictions for New Horizons Encounter With Kuiper Belt Object 2014 MU <sub>69</sub> (æ Ultima Thule). <i>Geophysical Research Letters</i> , 2018, 45, 8111-8120.	1.5	14
46	Lunar Secondary Craters and Estimated Ejecta Block Sizes Reveal a Scale-Dependent Fragmentation Trend. <i>Journal of Geophysical Research E: Planets</i> , 2020, 125, e2019JE006313.	1.5	12
47	Relaxed impact craters on Ganymede: Regional variation and high heat flows. <i>Icarus</i> , 2018, 306, 214-224.	1.1	11
48	Washboard and fluted terrains on Pluto as evidence for ancient glaciation. <i>Nature Astronomy</i> , 2019, 3, 62-68.	4.2	10
49	Geologically Diverse Pluto and Charon: Implications for the Dwarf Planets of the Kuiper Belt. <i>Annual Review of Earth and Planetary Sciences</i> , 2021, 49, 173-200.	4.6	10
50	Investigation of Charon's Craters With Abrupt Terminus Ejecta, Comparisons With Other Icy Bodies, and Formation Implications. <i>Journal of Geophysical Research E: Planets</i> , 2018, 123, 20-36.	1.5	9
51	A Near-surface Temperature Model of Arrokoth. <i>Planetary Science Journal</i> , 2022, 3, 110.	1.5	9
52	Spin evolution of Ceres and Vesta due to impacts. <i>Meteoritics and Planetary Science</i> , 2020, 55, 2493-2518.	0.7	7
53	Persephone: A Pluto-system Orbiter and Kuiper Belt Explorer. <i>Planetary Science Journal</i> , 2021, 2, 75.	1.5	7
54	Triton: Topography and Geology of a Probable Ocean World with Comparison to Pluto and Charon. <i>Remote Sensing</i> , 2021, 13, 3476.	1.8	7

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55	Origins of pits and troughs and degradation on a small primitive planetesimal in the Kuiper Belt: high-resolution topography of (486958) Arrokoth (aka 2014 MU69) from New Horizons. <i>Icarus</i> , 2021, 356, 113834.	1.1	5
56	Formation, Composition, and History of the Pluto System: A Post-New Horizons Synthesis. , 2020, , 1-1.		4
57	Collisions of Small Kuiper Belt Objects With (486958) Arrokoth: Implications for Its Spin Evolution and Bulk Density. <i>Journal of Geophysical Research E: Planets</i> , 2021, 126, e2021JE006961.	1.5	3
58	Snow Crash: Compaction Craters on (486958) Arrokoth and Other Small KBOs, With Implications. <i>Geophysical Research Letters</i> , 2022, 49, .	1.5	3
59	The Strangest Terrestrial Planet. <i>Science</i> , 2012, 336, 162-163.	6.0	2
60	Impact Cratering. , 2003, , 693-702.		2
61	The Dark Side of Pluto. <i>Planetary Science Journal</i> , 2021, 2, 214.	1.5	2