John R Spencer

List of Publications by Year
in descending order

119 papers	7,092 citations	57758 44 h-index	62596 80 g-index
122 all docs	122 docs citations	122 times ranked	3610 citing authors

#	Article	IF	Citations
1	Orbits and Occultation Opportunities of 15 TNOs Observed by New Horizons. Planetary Science Journal, 2022, 3, 23.	3.6	3
2	High-resolution Search for Kuiper Belt Object Binaries from New Horizons. Planetary Science Journal, 2022, 3, 46.	3.6	4
3	Anomalous Flux in the Cosmic Optical Background Detected with New Horizons Observations. Astrophysical Journal Letters, 2022, 927, L8.	8.3	32
4	Large-scale cryovolcanic resurfacing on Pluto. Nature Communications, 2022, 13, 1542.	12.8	15
5	The Diverse Shapes of Dwarf Planet and Large KBO Phase Curves Observed from New Horizons. Planetary Science Journal, 2022, 3, 95.	3.6	10
6	A Near-surface Temperature Model of Arrokoth. Planetary Science Journal, 2022, 3, 110.	3.6	9
7	A Predicted Dearth of Majority Hypervolatile Ices in Oort Cloud Comets. Planetary Science Journal, 2022, 3, 112.	3.6	15
8	Upper Limits on the Escape of Volatiles from (486958) Arrokoth Using New Horizons Alice Ultraviolet Spectrograph Observations. Planetary Science Journal, 2022, 3, 111.	3.6	3
9	The Geophysical Environment of (486958) Arrokothâ€"A Small Kuiper Belt Object Explored by New Horizons. Journal of Geophysical Research E: Planets, 2022, 127, .	3.6	18
10	Detection of Radio Thermal Emission from the Kuiper Belt Object (486958) Arrokoth during the New Horizons Encounter. Planetary Science Journal, 2022, 3, 109.	3.6	3
11	Snow Crash: Compaction Craters on (486958) Arrokoth and Other Small KBOs, With Implications. Geophysical Research Letters, 2022, 49, .	4.0	3
12	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. Icarus, 2021, 356, 113834.	2.5	5
13	Photometry of Kuiper belt object (486958) Arrokoth from New Horizons LORRI. Icarus, 2021, 356, 113723.	2.5	13
14	Persephone: A Pluto-system Orbiter and Kuiper Belt Explorer. Planetary Science Journal, 2021, 2, 75.	3.6	7
15	Charonâ€™s Far Side Geomorphology. Planetary Science Journal, 2021, 2, 141.	3.6	2
16	Lucy Mission to the Trojan Asteroids: Science Goals. Planetary Science Journal, 2021, 2, 171.	3.6	54
17	The Orbit and Density of the Jupiter Trojan Satellite System Eurybatesâ€“Queta. Planetary Science Journal, 2021, 2, 170.	3.6	10
18	Lucy Mission to the Trojan Asteroids: Instrumentation and Encounter Concept of Operations. Planetary Science Journal, 2021, 2, 172.	3.6	21

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19	Triton: Topography and Geology of a Probable Ocean World with Comparison to Pluto and Charon. Remote Sensing, 2021, 13, 3476.	4.0	7
20	New Horizons Observations of the Cosmic Optical Background. Astrophysical Journal, 2021, 906, 77.	4.5	42
21	The Dark Side of Pluto. Planetary Science Journal, 2021, 2, 214.	3.6	2
22	Collisions of Small Kuiper Belt Objects With (486958) Arrokoth: Implications for Its Spin Evolution and Bulk Density. Journal of Geophysical Research E: Planets, 2021, 126, e2021JE006961.	3.6	3
23	New Horizons Detection of the Local Galactic Lyman-Î± Background. Astronomical Journal, 2021, 162, 241.	4.7	7
24	The Pluto system after New Horizons. , 2020, , 271-288.		9
25	Plans for and initial results from the exploration of the Kuiper belt by New Horizons. , 2020, , 379-394.		1
26	Charon: A Brief History of Tides. Journal of Geophysical Research E: Planets, 2020, 125, e2020JE006449.	3.6	4
27	In-flight Performance and Calibration of the LOng Range Reconnaissance Imager (LORRI) for the New Horizons Mission. Publications of the Astronomical Society of the Pacific, 2020, 132, 035003.	3.1	14
28	Color, composition, and thermal environment of Kuiper Belt object (486958) Arrokoth. Science, 2020, 367, .	12.6	64
29	The geology and geophysics of Kuiper Belt object (486958) Arrokoth. Science, 2020, 367, .	12.6	76
30	The solar nebula origin of (486958) Arrokoth, a primordial contact binary in the Kuiper Belt. Science, 2020, 367, .	12.6	79
31	Influence of Solar Disturbances on Galactic Cosmic Rays in the Solar Wind, Heliosheath, and Local Interstellar Medium: Advanced Composition Explorer, New Horizons, and Voyager Observations. Astrophysical Journal, 2020, 905, 69.	4.5	15
32	Detection of a Satellite of the Trojan Asteroid (3548) Eurybatesâ€"A Lucy Mission Target. Planetary Science Journal, 2020, 1, 44.	3.6	13
33	Suprathermal Ions in the Outer Heliosphere. Astrophysical Journal, 2019, 876, 46.	4.5	15
34	Phase Curves from the Kuiper Belt: Photometric Properties of Distant Kuiper Belt Objects Observed by New Horizons. Astronomical Journal, 2019, 158, 123.	4.7	14
35	The nature and origin of Charon's smooth plains. Icarus, 2019, 323, 16-32.	2.5	26
36	Geologic Landforms and Chronostratigraphic History of Charon as Revealed by a Hemispheric Geologic Map. Journal of Geophysical Research E: Planets, 2019, 124, 155-174.	3.6	11

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37	Student Dust Counter: Status report at 38 AU. Icarus, 2019, 321, 116-125.	2.5	14
38	Initial results from the New Horizons exploration of 2014 MU ₆₉ , a small Kuiper Belt object. Science, 2019, 364, .	12.6	113
39	Recent cryovolcanism in Virgil Fossae on Pluto. Icarus, 2019, 330, 155-168.	2.5	45
40	Impact craters on Pluto and Charon indicate a deficit of small Kuiper belt objects. Science, 2019, 363, 955-959.	12.6	116
41	Close Cassini flybys of Saturnâ€™s ring moons Pan, Daphnis, Atlas, Pandora, and Epimetheus. Science, 2019, 364, .	12.6	24
42	Probing the Hill Sphere of (486958) 2014 MU₆₉. II. Hubble Space Telescope Fine Guidance Sensors Observations during the 2018 August 4 Stellar Occultation. Astronomical Journal, 2019, 158, 168.	4.7	1
43	Pluto's Interaction With Energetic Heliospheric Ions. Journal of Geophysical Research: Space Physics, 2019, 124, 7413-7424.	2.4	4
44	Maps of Tethysâ€™ thermophysical properties. Icarus, 2019, 321, 705-714.	2.5	4
45	Collecting amino acids in the Enceladus plume. International Journal of Astrobiology, 2019, 18, 47-59.	1.6	24
46	Phase Curves of Nix and Hydra from the New Horizons Imaging Cameras. Astrophysical Journal Letters, 2018, 852, L35.	8.3	6
47	The New Horizons and Hubble Space Telescope search for rings, dust, and debris in the Pluto-Charon system. Icarus, 2018, 301, 155-172.	2.5	11
48	Bladed Terrain on Pluto: Possible origins and evolution. Icarus, 2018, 300, 129-144.	2.5	47
49	Investigation of Charon's Craters With Abrupt Terminus Ejecta, Comparisons With Other Icy Bodies, and Formation Implications. Journal of Geophysical Research E: Planets, 2018, 123, 20-36.	3.6	9
50	Limits on Dione's Activity Using Cassini/CIRS Data. Geophysical Research Letters, 2018, 45, 5876-5898.	4.0	2
51	The Global Distribution of Active Ionian Volcanoes and Implications for Tidal Heating Models. Astronomical Journal, 2018, 156, 207.	4.7	11
52	Determining the Alpha to Proton Density Ratio for the New Horizons Solar Wind Observations. Astrophysical Journal, 2018, 866, 85.	4.5	10
53	Dunes on Pluto. Science, 2018, 360, 992-997.	12.6	81
54	Breaking up is hard to do: Global cartography and topography of Pluto's mid-sized icy Moon Charon from New Horizons. Icarus, 2018, 315, 124-145.	2.5	29

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55	Great Expectations: Plans and Predictions for New Horizons Encounter With Kuiper Belt Object 2014 MU₆₉ (â€œUltima Thuleâ€). Geophysical Research Letters, 2018, 45, 8111-8120.	4.0	14
56	The New Horizons Kuiper Belt Extended Mission. Space Science Reviews, 2018, 214, 1.	8.1	35
57	The Lymanâ€ Sky Background as Observed by New Horizons. Geophysical Research Letters, 2018, 45, 8022-8028.	4.0	19
58	Basins, fractures and volcanoes: Global cartography and topography of Pluto from New Horizons. Icarus, 2018, 314, 400-433.	2.5	75
59	High-precision Orbit Fitting and Uncertainty Analysis of (486958) 2014 MU69. Astronomical Journal, 2018, 156, 20.	4.7	39
60	Geological mapping of Sputnik Planitia on Pluto. Icarus, 2017, 287, 261-286.	2.5	52
61	Pluto: Pits and mantles on uplands north and east of Sputnik Planitia. Icarus, 2017, 293, 218-230.	2.5	24
62	Charon tectonics. Icarus, 2017, 287, 161-174.	2.5	30
63	Enceladus Plume Structure and Time Variability: Comparison of Cassini Observations. Astrobiology, 2017, 17, 926-940.	3.0	43
64	Interstellar Pickup Ion Observations to 38 au. Astrophysical Journal, Supplement Series, 2017, 233, 8.	7.7	59
65	The Global Color of Pluto from New Horizons. Astronomical Journal, 2017, 154, 258.	4.7	25
66	Sublimation as a landform-shaping process on Pluto. Icarus, 2017, 287, 320-333.	2.5	51
67	Present and past glaciation on Pluto. Icarus, 2017, 287, 287-300.	2.5	43
68	Craters of the Pluto-Charon system. Icarus, 2017, 287, 187-206.	2.5	59
69	The rapid formation of Sputnik Planitia early in Plutoâ€™s history. Nature, 2016, 540, 97-99.	27.8	34
70	Dual-telescope multi-channel thermal-infrared radiometer for outer planet fly-by missions. Acta Astronautica, 2016, 128, 628-639.	3.2	7
71	The formation of Charonâ€™s red poles from seasonally cold-trapped volatiles. Nature, 2016, 539, 65-68.	27.8	44
72	Convection in a volatile nitrogen-ice-rich layer drives Plutoâ€™s geological vigour. Nature, 2016, 534, 82-85.	27.8	102

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73	The atmosphere of Pluto as observed by New Horizons. Science, 2016, 351, aad8866.	12.6	201
74	Plutoâ€™s interaction with its space environment: Solar wind, energetic particles, and dust. Science, 2016, 351, aad9045.	12.6	60
75	The geology of Pluto and Charon through the eyes of New Horizons. Science, 2016, 351, 1284-1293.	12.6	219
76	Surface compositions across Pluto and Charon. Science, 2016, 351, aad9189.	12.6	242
77	Io: Eruptions at Pillan, and the time evolution of Pele and Pillan from 1996 to 2015. Icarus, 2016, 264, 198-212.	2.5	15
78	The Pluto system: Initial results from its exploration by New Horizons. Science, 2015, 350, aad1815.	12.6	407
79	Geology before Pluto: Pre-encounter considerations. Icarus, 2015, 246, 65-81.	2.5	29
80	Spatially resolved HST/STIS observations of Ioâ€™s dayside equatorial atmosphere. Icarus, 2015, 248, 165-189.	2.5	16
81	Io's hot spots in the near-infrared detected by LEISA during the New Horizons flyby. Journal of Geophysical Research E: Planets, 2014, 119, 2222-2238.	3.6	11
82	Detectability of thermal signatures associated with active formation of â€˜chaos terrainâ€™ on Europa. Earth and Planetary Science Letters, 2013, 384, 37-41.	4.4	3
83	The temperature and width of an active fissure on Enceladus measured with Cassini VIMS during the 14 April 2012 South Pole flyover. Icarus, 2013, 226, 1128-1137.	2.5	69
84	Enceladus: An Active Ice World in the Saturn System. Annual Review of Earth and Planetary Sciences, 2013, 41, 693-717.	11.0	142
85	Sublimation-driven erosion on Hyperion: Topographic analysis and landform simulation model tests. Icarus, 2012, 220, 268-276.	2.5	17
86	Characterizing Ioâ€™s Pele, Tvashtar and Pillan plumes: Lessons learned from Hubble. Icarus, 2012, 218, 378-405.	2.5	16
87	High heat flow from Enceladus' south polar region measured using 10â€“600 cm^{â^’1}Cassini/CIRS data. Journal of Geophysical Research, 2011, 116, .	3.3	145
88	Simulation of Ioâ€™s auroral emission: Constraints on the atmosphere in eclipse. Icarus, 2011, 214, 495-509.	2.5	26
89	Surface, Subsurface and Atmosphere Exchanges onÂtheÂSatellites ofÂtheÂOuter Solar System. Space Science Reviews, 2010, 153, 375-410.	8.1	19
90	Galileo PPR observations of Europa: Hotspot detection limits and surface thermal properties. Icarus, 2010, 210, 763-769.	2.5	44

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91	Formation of Iapetusâ€™ Extreme Albedo Dichotomy by Exogenically Triggered Thermal Ice Migration. Science, 2010, 327, 432-435.	12.6	81
92	Surface, Subsurface and Atmosphere Exchanges onÂtheÂSatellites ofÂtheÂOuter Solar System. Space Sciences Series of ISSI, 2010, , 373-408.	0.0	1
93	Enceladus with a grain of salt. Nature, 2009, 459, 1067-1068.	27.8	5
94	Endogenic heat from Enceladus' south polar fractures: New observations, and models of conductive surface heating. Icarus, 2009, 199, 189-196.	2.5	55
95	Enceladus: An Active Cryovolcanic Satellite. , 2009, , 683-724.		65
96	Ralph: A Visible/Infrared Imager for the New Horizons Pluto/Kuiper Belt Mission. Space Science Reviews, 2008, 140, 129-154.	8.1	141
97	New Horizons: Anticipated Scientific Investigations atÂtheÂPluto System. Space Science Reviews, 2008, 140, 93-127.	8.1	74
98	Numerical modeling of endogenic thermal anomalies on Europa. Icarus, 2008, 195, 378-385.	2.5	14
99	COMMISSION 16: PHYSICAL STUDY OF PLANETS AND SATELLITES. Proceedings of the International Astronomical Union, 2008, 4, 163-168.	0.0	0
100	Energetic Particles in the Jovian Magnetotail. Science, 2007, 318, 220-222.	12.6	50
101	Io's Atmospheric Response to Eclipse: UV Aurorae Observations. Science, 2007, 318, 237-240.	12.6	41
102	Io Volcanism Seen by New Horizons: A Major Eruption of the Tvashtar Volcano. Science, 2007, 318, 240-243.	12.6	104
103	The orbit, mass, size, albedo, and density of (65489) Ceto/Phorcys: A tidally-evolved binary Centaur. Icarus, 2007, 191, 286-297.	2.5	54
104	Inside Enceladus. Nature, 2007, 445, 376-377.	27.8	10
105	Shear heating as the origin of the plumes and heat flux on Enceladus. Nature, 2007, 447, 289-291.	27.8	232
106	A Clathrate Reservoir Hypothesis for Enceladus' South Polar Plume. Science, 2006, 314, 1764-1766.	12.6	156
107	Cassini Encounters Enceladus: Background and the Discovery of a South Polar Hot Spot. Science, 2006, 311, 1401-1405.	12.6	481
108	Temperatures, Winds, and Composition in the Saturnian System. Science, 2005, 307, 1247-1251.	12.6	184

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109	Exploring The Saturn System In The Thermal Infrared: The Composite Infrared Spectrometer. Space Science Reviews, 2004, 115, 169-297.	8.1	275
110	Ground-based observations of volcanism on Io in 1999 and early 2000. Journal of Geophysical Research, 2001, 106, 33129-33139.	3.3	47
111	Discovery of Gaseous S2 in Io's Pele Plume. Science, 2000, 288, 1208-1210.	12.6	193
112	Mass Movement and Landform Degradation on the Icy Galilean Satellites: Results of the Galileo Nominal Mission. Icarus, 1999, 140, 294-312.	2.5	128
113	Temperatures on Europa from Galileo Photopolarimeter-Radiometer: Nighttime Thermal Anomalies. Science, 1999, 284, 1514-1516.	12.6	226
114	High-Temperature Silicate Volcanism on Jupiter's Moon Io. , 1998, 281, 87-90.		198
115	Violent silicate volcanism on Io in 1996. Geophysical Research Letters, 1997, 24, 2455-2458.	4.0	53
116	The influence of thermal inertia on temperatures and frost stability on Triton. Icarus, 1992, 99, 261-272.	2.5	82
117	A rough-surface thermophysical model for airless planets. Icarus, 1990, 83, 27-38.	2.5	158
118	Systematic biases in radiometric diameter determinations. Icarus, 1989, 78, 337-354.	2.5	267
119	Thermal segregation of water ice on the Galilean satellites. Icarus, 1987, 69, 297-313.	2.5	99