Leslie A Young

List of Publications by Year
in descending order

164 papers	7,662 citations	38742 50 h-index	60623 81 g-index
164 all docs	164 docs citations	164 times ranked	2862 citing authors

#	Article	IF	Citations
1	The Pluto system: Initial results from its exploration by New Horizons. Science, 2015, 350, aad1815.	12.6	407
2	Surface Ices and the Atmospheric Composition of Pluto. Science, 1993, 261, 745-748.	12.6	358
3	Thermal structure of Jupiter's atmosphere near the edge of a 5-Î¼m hot spot in the north equatorial belt. Journal of Geophysical Research, 1998, 103, 22857-22889.	3.3	304
4	Surface compositions across Pluto and Charon. Science, 2016, 351, aad9189.	12.6	242
5	The geology of Pluto and Charon through the eyes of New Horizons. Science, 2016, 351, 1284-1293.	12.6	219
6	The atmosphere of Pluto as observed by New Horizons. Science, 2016, 351, aad8866.	12.6	201
7	Pluto's atmosphere. Icarus, 1989, 77, 148-170.	2.5	171
8	Discovery of two new satellites of Pluto. Nature, 2006, 439, 943-945.	27.8	148
9	Ralph: A Visible/Infrared Imager for the New Horizons Pluto/Kuiper Belt Mission. Space Science Reviews, 2008, 140, 129-154.	8.1	141
10	Impact craters on Pluto and Charon indicate a deficit of small Kuiper belt objects. Science, 2019, 363, 955-959.	12.6	116
11	Analysis of stellar occultation data for planetary atmospheres. I - Model fitting, with application to Pluto. Astronomical Journal, 1992, 103, 991.	4.7	116
12	Initial results from the New Horizons exploration of 2014 MU ₆₉ , a small Kuiper Belt object. Science, 2019, 364, .	12.6	113
13	ALICE: The Ultraviolet Imaging Spectrograph Aboard the New Horizons Plutoâ€“Kuiper Belt Mission. Space Science Reviews, 2008, 140, 155-187.	8.1	111
14	A giant impact origin for Pluto's small moons and satellite multiplicity in the Kuiper belt. Nature, 2006, 439, 946-948.	27.8	108
15	Reorientation of Sputnik Planitia implies a subsurface ocean on Pluto. Nature, 2016, 540, 94-96.	27.8	108
16	Mean radius and shape of Pluto and Charon from New Horizons images. Icarus, 2017, 287, 12-29.	2.5	105
17	Gravity Waves in Jupiter's Thermosphere. Science, 1997, 276, 108-111.	12.6	102
18	Convection in a volatile nitrogen-ice-rich layer drives Plutoâ€™s geological vigour. Nature, 2016, 534, 82-85.	27.8	102

#	Article	IF	Citations
19	Physical state and distribution of materials at the surface of Pluto from New Horizons LEISA imaging spectrometer. Icarus, 2017, 287, 229-260.	2.5	99
20	Origin of the Plutoâ€“Charon system: Constraints from the New Horizons flyby. Icarus, 2017, 287, 2-11.	2.5	99
21	PLUTO'S SEASONS: NEW PREDICTIONS FOR NEW HORIZONS. Astrophysical Journal Letters, 2013, 766, L22.	8.3	96
22	Plutoâ€™s global surface composition through pixel-by-pixel Hapke modeling of New Horizons Ralph/LEISA data. Icarus, 2017, 287, 218-228.	2.5	95
23	Orbits and Photometry of Pluto's Satellites: Charon, S/2005 P1, and S/2005 P2. Astronomical Journal, 2006, 132, 290-298.	4.7	90
24	Structure and composition of Pluto's atmosphere from the New Horizons solar ultraviolet occultation. Icarus, 2018, 300, 174-199.	2.5	90
25	Thermal Structure of Jupiter's Upper Atmosphere Derived from the Galileo Probe. Science, 1997, 276, 102-104.	12.6	88
26	Global albedos of Pluto and Charon from LORRI New Horizons observations. Icarus, 2017, 287, 207-217.	2.5	82
27	Detection of Gaseous Methane on Pluto. Icarus, 1997, 127, 258-262.	2.5	81
28	VERTICAL STRUCTURE IN PLUTO'S ATMOSPHERE FROM THE 2006 JUNE 12 STELLAR OCCULTATION. Astronomical Journal, 2008, 136, 1757-1769.	4.7	79
29	The solar nebula origin of (486958) Arrokoth, a primordial contact binary in the Kuiper Belt. Science, 2020, 367, .	12.6	79
30	The small satellites of Pluto as observed by New Horizons. Science, 2016, 351, aae0030.	12.6	78
31	The geology and geophysics of Kuiper Belt object (486958) Arrokoth. Science, 2020, 367, .	12.6	76
32	The photochemistry of Pluto's atmosphere as illuminated by New Horizons. Icarus, 2017, 287, 110-115.	2.5	75
33	Basins, fractures and volcanoes: Global cartography and topography of Pluto from New Horizons. Icarus, 2018, 314, 400-433.	2.5	75
34	New Horizons: Anticipated Scientific Investigations atÂtheÂPluto System. Space Science Reviews, 2008, 140, 93-127.	8.1	74
35	Radio occultation measurements of Plutoâ€™s neutral atmosphere with New Horizons. Icarus, 2017, 290, 96-111.	2.5	74
36	Constraints on the microphysics of Pluto's photochemical haze from New Horizons observations. Icarus, 2017, 287, 116-123.	2.5	73

#	Article	IF	Citations
37	Haze in Pluto's atmosphere. Icarus, 2017, 290, 112-133.	2.5	72
38	The Pluto System After New Horizons. Annual Review of Astronomy and Astrophysics, 2018, 56, 357-392.	24.3	72
39	Near-infrared spectral monitoring of Plutoâ€™s ices: Spatial distribution and secular evolution. Icarus, 2013, 223, 710-721.	2.5	70
40	PLUTO AND CHARON WITH THEHUBBLE SPACE TELESCOPE. II. RESOLVING CHANGES ON PLUTOâ€™S SURFACE AND A MAP FOR CHARON. Astronomical Journal, 2010, 139, 1128-1143.	4.7	69
41	Color, composition, and thermal environment of Kuiper Belt object (486958) Arrokoth. Science, 2020, 367, .	12.6	64
42	Plutoâ€™s interaction with its space environment: Solar wind, energetic particles, and dust. Science, 2016, 351, aad9045.	12.6	60
43	Craters of the Pluto-Charon system. Icarus, 2017, 287, 187-206.	2.5	59
44	Long-term surface temperature modeling of Pluto. Icarus, 2017, 287, 37-46.	2.5	55
45	Past epochs of significantly higher pressure atmospheres on Pluto. Icarus, 2017, 287, 47-53.	2.5	54
46	TheÂnitrogenÂcyclesÂonÂPlutoÂoverÂseasonalÂand astronomicalÂtimescales. Icarus, 2018, 309, 277-296.	2.5	54
47	The Thermal Structure of Triton's Atmosphere: Results from the 1993 and 1995 Occultations. Icarus, 1997, 129, 178-201.	2.5	52
48	Polar Lightning and Decadal-Scale Cloud Variability on Jupiter. Science, 2007, 318, 226-229.	12.6	52
49	Geological mapping of Sputnik Planitia on Pluto. Icarus, 2017, 287, 261-286.	2.5	52
50	Sublimation as a landform-shaping process on Pluto. Icarus, 2017, 287, 320-333.	2.5	51
51	Overview of the New Horizons Science Payload. Space Science Reviews, 2008, 140, 75-91.	8.1	50
52	Plutoâ€™s climate modeled with new observational constraints. Icarus, 2015, 246, 183-191.	2.5	50
53	Pluto's haze as a surface material. Icarus, 2018, 314, 232-245.	2.5	50
54	PLUTO AND CHARON WITH THEHUBBLE SPACE TELESCOPE.I. MONITORING GLOBAL CHANGE AND IMPROVED SURFACE PROPERTIES FROM LIGHT CURVES. Astronomical Journal, 2010, 139, 1117-1127.	4.7	49

#	Article	IF	Citations
55	Evidence that Plutoâ€™s atmosphere does not collapse from occultations including the 2013 May 04 event. Icarus, 2015, 246, 220-225.	2.5	49
56	Composition of Plutoâ€™s small satellites: Analysis of New Horizons spectral images. Icarus, 2018, 315, 30-45.	2.5	49
57	Detection of ammonia on Plutoâ€™s surface in a region of geologically recent tectonism. Science Advances, 2019, 5, eaav5731.	10.3	49
58	Jupiter Cloud Composition, Stratification, Convection, and Wave Motion: A View from New Horizons. Science, 2007, 318, 223-225.	12.6	48
59	Pluto's Spectrum from 1.0 to 4.2 Î¼m: Implications for Surface Properties. Astronomical Journal, 2007, 133, 420-431.	4.7	47
60	Bladed Terrain on Pluto: Possible origins and evolution. Icarus, 2018, 300, 129-144.	2.5	47
61	Recent cryovolcanism in Virgil Fossae on Pluto. Icarus, 2019, 330, 155-168.	2.5	45
62	The formation of Charonâ€™s red poles from seasonally cold-trapped volatiles. Nature, 2016, 539, 65-68.	27.8	44
63	Present and past glaciation on Pluto. Icarus, 2017, 287, 287-300.	2.5	43
64	New Horizons Observations of the Cosmic Optical Background. Astrophysical Journal, 2021, 906, 77.	4.5	42
65	Io's Atmospheric Response to Eclipse: UV Aurorae Observations. Science, 2007, 318, 237-240.	12.6	41
66	Modeling glacial flow on and onto Plutoâ€™s Sputnik Planitia. Icarus, 2017, 287, 301-319.	2.5	38
67	Ices on Charon: Distribution of H2O and NH3 from New Horizons LEISA observations. Icarus, 2018, 300, 21-32.	2.5	38
68	The CH4 cycles on Pluto over seasonal and astronomical timescales. Icarus, 2019, 329, 148-165.	2.5	38
69	The rapid formation of Sputnik Planitia early in Plutoâ€™s history. Nature, 2016, 540, 97-99.	27.8	34
70	Climate zones on Pluto and Charon. Icarus, 2017, 287, 30-36.	2.5	34
71	Near-infrared spectral monitoring of Triton with IRTF/SpeX I: establishing a baseline for rotational variability. Icarus, 2004, 172, 455-465.	2.5	33
72	Pluto's interaction with the solar wind. Journal of Geophysical Research: Space Physics, 2016, 121, 4232-4246.	2.4	32

#	Article	IF	Citations
73	New Horizons constraints on Charon's present day atmosphere. Icarus, 2017, 287, 124-130.	2.5	32
74	Anomalous Flux in the Cosmic Optical Background Detected with New Horizons Observations. Astrophysical Journal Letters, 2022, 927, L8.	8.3	32
75	Gravity waves in Jupiter's stratosphere, as measured by the Galileo ASI experiment. Icarus, 2005, 173, 185-199.	2.5	31
76	On the origin & thermal stability of Arrokoth's and Pluto's ices. Icarus, 2021, 356, 114072.	2.5	31
77	Charon tectonics. Icarus, 2017, 287, 161-174.	2.5	30
78	An upper limit on Plutoâ€™s ionosphere from radio occultation measurements with New Horizons. Icarus, 2018, 307, 17-24.	2.5	30
79	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
80	Lower atmosphere and pressure evolution on Pluto from ground-based stellar occultations, 1988â€“2016. Astronomy and Astrophysics, 2019, 625, A42.	5.1	29
81	Volatile transport on inhomogeneous surfaces: I â€“ Analytic expressions, with application to Plutoâ€™s day. Icarus, 2012, 221, 80-88.	2.5	28
82	VOLATILE LOSS AND CLASSIFICATION OF KUIPER BELT OBJECTS. Astrophysical Journal, 2015, 809, 43.	4.5	27
83	The nature and origin of Charon's smooth plains. Icarus, 2019, 323, 16-32.	2.5	26
84	Prebiotic Chemistry of Pluto. Astrobiology, 2019, 19, 831-848.	3.0	26
85	The Global Color of Pluto from New Horizons. Astronomical Journal, 2017, 154, 258.	4.7	25
86	Jupiter's Nightside Airglow and Aurora. Science, 2007, 318, 229-231.	12.6	24
87	Gas transfer in the Plutoâ€“Charon system: A Charon atmosphere. Icarus, 2015, 246, 291-297.	2.5	24
88	Pluto: Pits and mantles on uplands north and east of Sputnik Planitia. Icarus, 2017, 293, 218-230.	2.5	24
89	Limits on the radius and a possible atmosphere of Charon from its 1980 stellar occultation. Icarus, 1991, 89, 244-254.	2.5	22
90	New Horizons Observations of the Atmosphere of Pluto. Annual Review of Earth and Planetary Sciences, 2019, 47, 119-140.	11.0	22

#	Article	IF	Citations
91	The distribution of H2O, CH3OH, and hydrocarbon-ices on Pluto: Analysis of New Horizons spectral images. Icarus, 2019, 331, 148-169.	2.5	21
92	New Horizons Alice ultraviolet observations of a stellar occultation by Jupiterâ€™s atmosphere. Icarus, 2010, 208, 293-305.	2.5	20
93	The Lymanâ€Î± Sky Background as Observed by New Horizons. Geophysical Research Letters, 2018, 45, 8022-8028.	4.0	19
94	A major ice component in Plutoâ€™s haze. Nature Astronomy, 2021, 5, 289-297.	10.1	19
95	Evidence for longitudinal variability of ethane ice on the surface of Pluto. Icarus, 2014, 243, 104-110.	2.5	18
96	Disk-resolved Photometric Properties of Pluto and the Coloring Materials across its Surface. Astronomical Journal, 2020, 159, 74.	4.7	18
97	Pluto's Far Side. Icarus, 2021, 356, 113805.	2.5	18
98	New Constraints on Additional Satellites of the Pluto System. Astronomical Journal, 2006, 132, 614-619.	4.7	17
99	Near-infrared spectral monitoring of Plutoâ€™s ices II: Recent decline of CO and N2 ice absorptions. Icarus, 2014, 235, 220-224.	2.5	17
100	Albedo matters: Understanding runaway albedo variations on Pluto. Icarus, 2018, 303, 1-9.	2.5	17
101	Pluto's Beating Heart Regulates the Atmospheric Circulation: Results From Highâ€Resolution and Multiyear Numerical Climate Simulations. Journal of Geophysical Research E: Planets, 2020, 125, e2019JE006120.	3.6	16
102	Measuring temperature and ammonia hydrate ice on Charon in 2015 from Keck/OSIRIS spectra. Icarus, 2017, 284, 394-406.	2.5	15
103	Suprathermal Ions in the Outer Heliosphere. Astrophysical Journal, 2019, 876, 46.	4.5	15
104	Ongoing resurfacing of KBO Eris by volatile transport in local, collisional, sublimation atmosphere regime. Icarus, 2019, 334, 52-61.	2.5	15
105	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
106	Large-scale cryovolcanic resurfacing on Pluto. Nature Communications, 2022, 13, 1542.	12.8	15
107	A Predicted Dearth of Majority Hypervolatile Ices in Oort Cloud Comets. Planetary Science Journal, 2022, 3, 112.	3.6	15
108	Stellar Occultation Observations of Saturn's North-Polar Temperature Structure. Icarus, 1998, 132, 298-310.	2.5	14

#	Article	IF	Citations
109	Gravity waves in Titanâ€™s lower stratosphere from Huygens probe in situ temperature measurements. Icarus, 2014, 227, 49-55.	2.5	14
110	THE FIRST HIGH-PHASE OBSERVATIONS OF A KBO: NEW HORIZONS IMAGING OF (15810) 1994 JR₁ FROM THE KUIPER BELT. Astrophysical Journal Letters, 2016, 828, L15.	8.3	14
111	Inflight radiometric calibration of New Horizonsâ€™ Multispectral Visible Imaging Camera (MVIC). Icarus, 2017, 287, 140-151.	2.5	14
112	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
113	Methane distribution on Pluto as mapped by the New Horizons Ralph/MVIC instrument. Icarus, 2018, 314, 195-209.	2.5	14
114	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
115	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
116	INTERPLANETARY MAGNETIC FIELD SECTOR FROM SOLAR WIND AROUND PLUTO (SWAP) MEASUREMENTS OF HEAVY ION PICKUP NEAR PLUTO. Astrophysical Journal Letters, 2016, 823, L30.	8.3	13
117	A search for temporal changes on Pluto and Charon. Icarus, 2018, 302, 273-284.	2.5	12
118	Pluto's Ultraviolet Spectrum, Surface Reflectance, and Airglow Emissions. Astronomical Journal, 2020, 159, 274.	4.7	12
119	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
120	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
121	Finding KBO Flyby Targets for New Horizons. Earth, Moon and Planets, 2003, 92, 483-491.	0.6	10
122	Seasonal variations in Plutoâ€™s atmospheric tides. Icarus, 2015, 246, 247-267.	2.5	10
123	Volatile transport on inhomogeneous surfaces: II. Numerical calculations (VT3D). Icarus, 2017, 284, 443-476.	2.5	10
124	Determining the Alpha to Proton Density Ratio for the New Horizons Solar Wind Observations. Astrophysical Journal, 2018, 866, 85.	4.5	10
125	Washboard and fluted terrains on Pluto as evidence for ancient glaciation. Nature Astronomy, 2019, 3, 62-68.	10.1	10
126	Modeling Plutoâ€™s minimum pressure: Implications for haze production. Icarus, 2021, 356, 114070.	2.5	10

#	Article	IF	Citations
127	The Diverse Shapes of Dwarf Planet and Large KBO Phase Curves Observed from New Horizons. Planetary Science Journal, 2022, 3, 95.	3.6	10
128	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
129	The Pluto system after New Horizons. , 2020, , 271-288.		9
130	Cryovolcanic flooding in Viking Terra on Pluto. Icarus, 2021, 356, 113786.	2.5	9
131	Global compositional cartography of Pluto from intensity-based registration of LEISA data. Icarus, 2021, 356, 113833.	2.5	9
132	A Near-surface Temperature Model of Arrokoth. Planetary Science Journal, 2022, 3, 110.	3.6	9
133	New Horizons Photometry of Pluto's Moon Charon. Astrophysical Journal Letters, 2019, 874, L3.	8.3	8
134	Radio thermal emission from Pluto and Charon during the New Horizons encounter. Icarus, 2019, 322, 192-209.	2.5	8
135	New Horizons Upper Limits on O₂ in Plutoâ€™s Present Day Atmosphere. Astronomical Journal, 2017, 154, 55.	4.7	7
136	Persephone: A Pluto-system Orbiter and Kuiper Belt Explorer. Planetary Science Journal, 2021, 2, 75.	3.6	7
137	Volatile transport modeling on Triton with new observational constraints. Icarus, 2022, 373, 114764.	2.5	7
138	New Horizons Detection of the Local Galactic Lyman-Î± Background. Astronomical Journal, 2021, 162, 241.	4.7	7
139	Phase Curves of Nix and Hydra from the New Horizons Imaging Cameras. Astrophysical Journal Letters, 2018, 852, L35.	8.3	6
140	K2 precision lightcurve: Twelve days in the Pluto-Charon system. Icarus, 2018, 314, 265-273.	2.5	6
141	Distribution and energy balance of Plutoâ€™s nitrogen ice, as seen by New Horizons in 2015. Icarus, 2021, 356, 113633.	2.5	6
142	Plutoâ€™s Haze Abundance and Size Distribution from Limb Scatter Observations by MVIC. Planetary Science Journal, 2021, 2, 91.	3.6	5
143	Pluto's Sputnik Planitia: Composition of geological units from infrared spectroscopy. Icarus, 2021, 359, 114303.	2.5	5
144	New Constraints on Plutoâ€™s Sputnik Planitia Ice Sheet from a Coupled Reorientationâ€“Climate Model. Planetary Science Journal, 2021, 2, 194.	3.6	5

#	Article	IF	Citations
145	A bimodal distribution of haze in Plutoâ€™s atmosphere. Nature Communications, 2022, 13, 240.	12.8	5
146	Pluto's Interaction With Energetic Heliospheric Ions. Journal of Geophysical Research: Space Physics, 2019, 124, 7413-7424.	2.4	4
147	Charon: A Brief History of Tides. Journal of Geophysical Research E: Planets, 2020, 125, e2020JE006449.	3.6	4
148	Evaluation of short-term temporal evolution of Plutoâ€™s surface composition from 2014â€“2017 with APO/TripleSpec. Icarus, 2022, 373, 114729.	2.5	4
149	Excited state photochemically driven surface formation of benzene from acetylene ices on Pluto and in the outer solar system. Physical Chemistry Chemical Physics, 2022, 24, 1424-1436.	2.8	4
150	RAPID COMPUTATION OF OCCULTATION LIGHTCURVES USING FOURIER DECOMPOSITION. Astronomical Journal, 2009, 137, 3398-3403.	4.7	3
151	New Horizons: Encountering Pluto and KBOs. Proceedings of the International Astronomical Union, 2009, 5, 305-311.	0.0	3
152	Volatile evolution and atmospheres of Trans-Neptunian objects. , 2020, , 127-151.		3
153	New Horizons Observations of an Ultraviolet Stellar Occultation and Appulse by Plutoâ€™s Atmosphere. Astronomical Journal, 2020, 159, 26.	4.7	3
154	Ralph: A Visible/Infrared Imager for the New Horizons Pluto/Kuiper Belt Mission. , 2009, , 129-154.		3
155	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
156	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
157	Charon's light curves, as observed by New Horizonsâ€™ Ralph color camera (MVIC) on approach to the Pluto system. Icarus, 2017, 287, 152-160.	2.5	2
158	Constraining the IMF at Pluto Using New Horizons SWAP Data and Hybrid Simulations. Journal of Geophysical Research: Space Physics, 2019, 124, 1568-1581.	2.4	2
159	Constraints on Plutoâ€™s H and CH4 profiles from New Horizons Alice LyÎ± observations. Icarus, 2021, 356, 113973.	2.5	2
160	Charonâ€™s Far Side Geomorphology. Planetary Science Journal, 2021, 2, 141.	3.6	2
161	Plutoâ€™s Volatile and Climate Cycles on Short and Long Timescales. , 2020, , 1-1.		2
162	The Dark Side of Pluto. Planetary Science Journal, 2021, 2, 214.	3.6	2

#	Article	IF	Citations
163	High-resolution radiometry of Pluto at 4.2Âcm with New Horizons. Icarus, 2021, 363, 114430.	2.5	1
164	Tracing seasonal trends across Plutoâ€™s craters: New Horizons Ralph/MVIC results. Icarus, 2022, 373, 114771.	2.5	1