

# Luciano IESS

## List of Publications by Year in descending order

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92  
papers

5,975  
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117453

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71532

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104  
docs citations

104  
times ranked

4215  
citing authors

#	ARTICLE	IF	CITATIONS
1	Constraining the Internal Structures of Venus and Mars from the Gravity Response to Atmospheric Loading. Planetary Science Journal, 2022, 3, 164.	1.5	6
2	Geodesy, Geophysics and Fundamental Physics Investigations of the BepiColombo Mission. Space Science Reviews, 2021, 217, 1.	3.7	25
3	Gravity, Geodesy and Fundamental Physics with BepiColombo's MORE Investigation. Space Science Reviews, 2021, 217, 1.	3.7	28
4	Comparison of light-time formulations in the post-Newtonian framework for the BepiColombo MORE experiment. Classical and Quantum Gravity, 2021, 38, 227001.	1.5	8
5	The BepiColombo solar conjunction experiments revisited. Classical and Quantum Gravity, 2021, 38, 055002.	1.5	11
6	The depth of Jupiter's Great Red Spot constrained by Juno gravity overflights. Science, 2021, 374, 964-968.	6.0	18
7	The Determination of the Rotational State and Interior Structure of Venus with VERITAS. Planetary Science Journal, 2021, 2, 220.	1.5	18
8	A small spacecraft to probe the interior of the Jovian moon Europa: Europa Tomography Probe (ETP) system design. Acta Astronautica, 2020, 166, 137-146.	1.7	0
9	Jupiter's Gravity Field Halfway Through the Juno Mission. Geophysical Research Letters, 2020, 47, e2019GL086572.	1.5	79
10	Analysis of Cassini radio tracking data for the construction of INPOP19a: A new estimate of the Kuiper belt mass. Astronomy and Astrophysics, 2020, 640, A7.	2.1	16
11	Hardware Prototyping and Validation of a W-1 DOR Digital Signal Processor. Applied Sciences (Switzerland), 2019, 9, 2909.	1.3	3
12	On the determination of Jupiter's satellite-dependent Love numbers from Juno gravity data. Planetary and Space Science, 2019, 175, 34-40.	0.9	10
13	Measurement and implications of Saturn's gravity field and ring mass. Science, 2019, 364, .	6.0	148
14	Saturn's Deep Atmospheric Flows Revealed by the Cassini Grand Finale Gravity Measurements. Geophysical Research Letters, 2019, 46, 616-624.	1.5	65
15	Titan's cold case files - Outstanding questions after Cassini-Huygens. Planetary and Space Science, 2018, 155, 50-72.	0.9	37
16	A suppression of differential rotation in Jupiter's deep interior. Nature, 2018, 555, 227-230.	13.7	165
17	Measurement of Jupiter's asymmetric gravity field. Nature, 2018, 555, 220-222.	13.7	177
18	Jupiter's atmospheric jet streams extend thousands of kilometres deep. Nature, 2018, 555, 223-226.	13.7	189

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19	An analysis of the geodesy and relativity experiments of BepiColombo. <i>Icarus</i> , 2018, 301, 9-25.	1.1	30
20	Estimating Jupiter's Gravity Field Using Juno Measurements, Trajectory Estimation Analysis, and a Flow Model Optimization. <i>Astronomical Journal</i> , 2017, 154, 2.	1.9	10
21	Jupiter's interior and deep atmosphere: The initial pole-to-pole passes with the Juno spacecraft. <i>Science</i> , 2017, 356, 821-825.	6.0	229
22	Jupiter gravity field estimated from the first two Juno orbits. <i>Geophysical Research Letters</i> , 2017, 44, 4694-4700.	1.5	74
23	The determination of the post-Newtonian parameter $\gamma$ during the cruise phase of BepiColombo. <i>Classical and Quantum Gravity</i> , 2017, 34, 075002.	1.5	29
24	Survey of Capabilities and Applications of Accurate Clocks: Directions for Planetary Science. <i>Space Science Reviews</i> , 2017, 212, 1433-1451.	3.7	7
25	The Juno Gravity Science Instrument. <i>Space Science Reviews</i> , 2017, 213, 205-218.	3.7	32
26	Titan's Topography and Shape at the End of the Cassini Mission. <i>Geophysical Research Letters</i> , 2017, 44, 11,754.	1.5	78
27	The effect of Jupiter oscillations on Juno gravity measurements. <i>Icarus</i> , 2017, 282, 174-182.	1.1	15
28	Sensitivity study of systematic errors in the BepiColombo relativity experiment. , 2016, , .		4
29	The rotational dynamics of Titan from Cassini RADAR images. <i>Icarus</i> , 2016, 275, 183-192.	1.1	15
30	Optimizing Data Volume Return for Ka-Band Deep Space Links Exploiting Short-Term Radiometeorological Model Forecast. <i>IEEE Transactions on Antennas and Propagation</i> , 2016, 64, 235-250.	3.1	26
31	Probing the depth of Jupiter's Great Red Spot with the Juno gravity experiment. <i>Icarus</i> , 2016, 267, 232-242.	1.1	20
32	Rhea gravity field and interior modeling from Cassini data analysis. <i>Icarus</i> , 2016, 264, 264-273.	1.1	34
33	Testing general relativity during the cruise phase of the BepiColombo mission to Mercury. , 2015, , .		6
34	Coupling radio propagation and weather forecast models to maximize Ka-band channel transmission rate for interplanetary missions. , 2015, , .		0
35	Quantum tests of the Einstein Equivalence Principle with the STE-QUEST space mission. <i>Advances in Space Research</i> , 2015, 55, 501-524.	1.2	151
36	Evaluation of deep space Ka-band data transfer using radiometeorological forecast models. , 2014, , .		3

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37	The exploration of Titan with an orbiter and a lake probe. <i>Planetary and Space Science</i> , 2014, 104, 78-92.	0.9	26
38	The Gravity Field and Interior Structure of Enceladus. <i>Science</i> , 2014, 344, 78-80.	6.0	339
39	Astra: Interdisciplinary study on enhancement of the end-to-end accuracy for spacecraft tracking techniques. <i>Acta Astronautica</i> , 2014, 94, 699-707.	1.7	62
40	A rigid and weathered ice shell on Titan. <i>Nature</i> , 2013, 500, 550-552.	13.7	71
41	Mercury's gravity field from the first six months of MESSENGER data. <i>Planetary and Space Science</i> , 2013, 81, 55-64.	0.9	15
42	The Tides of Titan. <i>Science</i> , 2012, 337, 457-459.	6.0	237
43	Same beam interferometry as a tool for the investigation of the lunar interior. <i>Planetary and Space Science</i> , 2012, 74, 194-201.	0.9	13
44	Environments in the Outer Solar System. <i>Space Science Reviews</i> , 2010, 153, 11-59.	3.7	8
45	Gravity Field, Shape, and Moment of Inertia of Titan. <i>Science</i> , 2010, 327, 1367-1369.	6.0	177
46	The cross-link technique for deep space missions. , 2009, , .		1
47	Matter wave explorer of gravity (MWXG). <i>Experimental Astronomy</i> , 2009, 23, 611-649.	1.6	30
48	MORE: An advanced tracking experiment for the exploration of Mercury with the mission BepiColombo. <i>Acta Astronautica</i> , 2009, 65, 666-675.	1.7	67
49	Space-time localization of inner heliospheric plasma turbulence using multiple spacecraft radio links. <i>Space Weather</i> , 2009, 7, .	1.3	6
50	Can Cassini detect a subsurface ocean in Titan from gravity measurements?. <i>Icarus</i> , 2008, 194, 711-720.	1.1	34
51	A non-hydrostatic Rhea. <i>Geophysical Research Letters</i> , 2008, 35, .	1.5	22
52	Reducing antenna mechanical noise in precision spacecraft tracking. <i>Radio Science</i> , 2008, 43, .	0.8	14
53	The measurement of Titan rotational state by means of SAR imaging. , 2008, , .		1
54	Titan's Rotation Reveals an Internal Ocean and Changing Zonal Winds. <i>Science</i> , 2008, 319, 1649-1651.	6.0	178

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55	The effect of the motion of the Sun on the light-time in interplanetary relativity experiments. <i>Classical and Quantum Gravity</i> , 2008, 25, 045013.	1.5	17
56	DETERMINING TITAN'S SPIN STATE FROM CASSINI RADAR IMAGES. <i>Astronomical Journal</i> , 2008, 135, 1669-1680.	1.9	78
57	PROBING SPACE-TIME IN THE SOLAR SYSTEM: FROM CASSINI TO BEPICOLOMBO. <i>International Journal of Modern Physics D</i> , 2007, 16, 2117-2126.	0.9	34
58	Mass and interior of Enceladus from Cassini data analysis. <i>Icarus</i> , 2007, 190, 175-178.	1.1	18
59	Gravity field and interior of Rhea from Cassini data analysis. <i>Icarus</i> , 2007, 190, 585-593.	1.1	43
60	The BepiColombo Laser Altimeter (BELA): Concept and baseline design. <i>Planetary and Space Science</i> , 2007, 55, 1398-1413.	0.9	80
61	Hyperion's sponge-like appearance. <i>Nature</i> , 2007, 448, 50-53.	13.7	90
62	SMART-1 mission to the Moon: Status, first results and goals. <i>Advances in Space Research</i> , 2006, 37, 6-13.	1.2	84
63	Small Mission Design for Testing In-Orbit an Electrodynamic Tether Deorbiting System. <i>Journal of Spacecraft and Rockets</i> , 2006, 43, 883-892.	1.3	21
64	The Cassini solar Faraday rotation experiment. <i>Advances in Space Research</i> , 2005, 36, 1587-1594.	1.2	14
65	SMART-1 after lunar capture: First results and perspectives. <i>Journal of Earth System Science</i> , 2005, 114, 689-697.	0.6	9
66	Linear Stability Analysis of Electrodynamic Tethers. <i>Journal of Guidance, Control, and Dynamics</i> , 2005, 28, 843-849.	1.6	7
67	Spacecraft Doppler tracking: Noise budget and accuracy achievable in precision radio science observations. <i>Radio Science</i> , 2005, 40, n/a-n/a.	0.8	149
68	Precise Cassini Navigation During Solar Conjunctions Through Multifrequency Plasma Calibrations. <i>Journal of Guidance, Control, and Dynamics</i> , 2004, 27, 251-257.	1.6	38
69	Cassini Radio Science. <i>Space Science Reviews</i> , 2004, 115, 1-70.	3.7	75
70	SMART-1 mission to the moon: Technology and science goals. <i>Advances in Space Research</i> , 2003, 31, 2323-2333.	1.2	33
71	A test of general relativity using radio links with the Cassini spacecraft. <i>Nature</i> , 2003, 425, 374-376.	13.7	1,547
72	The Cassini solar conjunction experiment: a new test of general relativity. , 2003, , .		5

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73	Stochastic Gravitational Wave Background: Upper Limits in the $10^{-6}$ to $10^{-3}$ Hz Band. <i>Astrophysical Journal</i> , 2003, 599, 806-813.	1.6	89
74	The Cassini gravitational wave experiment. , 2003, 4856, 90.		17
75	satellite de-orbiting by means of electrodynamic tethers part i: general concepts and requirements. <i>Acta Astronautica</i> , 2002, 50, 399-406.	1.7	43
76	SATELLITE DE-ORBITING BY MEANS OF ELECTRODYNAMIC TETHERS PART II: SYSTEM CONFIGURATION AND PERFORMANCE. <i>Acta Astronautica</i> , 2002, 50, 407-416.	1.7	27
77	The Huygens Doppler Wind Experiment ' Titan Winds Derived from Probe Radio Frequency Measurements. <i>Space Science Reviews</i> , 2002, 104, 613-640.	3.7	37
78	Advanced radio science instrumentation for the mission BepiColombo to Mercury. <i>Planetary and Space Science</i> , 2001, 49, 1597-1608.	0.9	64
79	Stability and control of electrodynamic tethers for de-orbiting applications. <i>Acta Astronautica</i> , 2001, 48, 491-501.	1.7	65
80	Doppler measurement of the solar gravitational deflection. <i>Classical and Quantum Gravity</i> , 1999, 16, 1487-1502.	1.5	50
81	Current-voltage characteristic of the TSS-1R satellite: Comparison with isotropic and anisotropic models. <i>Geophysical Research Letters</i> , 1998, 25, 749-752.	1.5	26
82	Plasma waves in the sheath of the TSS-1R satellite. <i>Geophysical Research Letters</i> , 1998, 25, 421-424.	1.5	8
83	Microsatellites and space station for science and technology utilisation. <i>Acta Astronautica</i> , 1996, 39, 605-616.	1.7	1
84	The RETE experiment for the TSS-1 mission. <i>Il Nuovo Cimento Della Societ� Italiana Di Fisica C</i> , 1994, 17, 101-121.	0.2	15
85	Doppler experiments with Cassini radio system. <i>Il Nuovo Cimento Della Societ� Italiana Di Fisica C</i> , 1992, 15, 1193-1198.	0.2	10
86	The rotation of LAGEOS. <i>Journal of Geophysical Research</i> , 1991, 96, 2431-2440.	3.3	59
87	Spacecraft Doppler tracking with a VLBI antenna. <i>Il Nuovo Cimento Della Societ� Italiana Di Fisica C</i> , 1990, 13, 169-176.	0.2	1
88	Effect of particle drag on the LAGEOS node and measurement of the gravitomagnetic field. <i>Societa Italiana Di Fisica Nuovo Cimento B-General Physics, Relativity Astronomy and Mathematical Physics and Methods</i> , 1990, 105, 573-588.	0.2	6
89	Interaction of a hollow-cathode source with an ionospheric plasma. <i>Advances in Space Research</i> , 1990, 10, 147-150.	1.2	0
90	Differential Doppler tracking of interplanetary spacecraft. <i>Il Nuovo Cimento Della Societ� Italiana Di Fisica C</i> , 1987, 10, 235-246.	0.2	4

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91	Parallel proton heating in the solar wind by oblique Alfvén waves. <i>Il Nuovo Cimento Della Società Italiana Di Fisica C</i> , 1986, 9, 1035-1044.	0.2	3
92	Doppler search for a gravitational background radiation with two spacecraft. <i>General Relativity and Gravitation</i> , 1985, 17, 1043-1058.	0.7	6