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List of Publications by Year
in descending order

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92 papers	5,975 citations	117453 34 h-index	71532 76 g-index
104 all docs	104 docs citations	104 times ranked	4215 citing authors

#	Article	IF	Citations
1	A test of general relativity using radio links with the Cassini spacecraft. Nature, 2003, 425, 374-376.	13.7	1,547
2	The Gravity Field and Interior Structure of Enceladus. Science, 2014, 344, 78-80.	6.0	339
3	The Tides of Titan. Science, 2012, 337, 457-459.	6.0	237
4	Jupiterâ€™s interior and deep atmosphere: The initial pole-to-pole passes with the Juno spacecraft. Science, 2017, 356, 821-825.	6.0	229
5	Jupiterâ€™s atmospheric jet streams extend thousands of kilometres deep. Nature, 2018, 555, 223-226.	13.7	189
6	Titan's Rotation Reveals an Internal Ocean and Changing Zonal Winds. Science, 2008, 319, 1649-1651.	6.0	178
7	Gravity Field, Shape, and Moment of Inertia of Titan. Science, 2010, 327, 1367-1369.	6.0	177
8	Measurement of Jupiterâ€™s asymmetric gravity field. Nature, 2018, 555, 220-222.	13.7	177
9	A suppression of differential rotation in Jupiterâ€™s deep interior. Nature, 2018, 555, 227-230.	13.7	165
10	Quantum tests of the Einstein Equivalence Principle with the STEâ€“QUEST space mission. Advances in Space Research, 2015, 55, 501-524.	1.2	151
11	Spacecraft Doppler tracking: Noise budget and accuracy achievable in precision radio science observations. Radio Science, 2005, 40, n/a-n/a.	0.8	149
12	Measurement and implications of Saturnâ€™s gravity field and ring mass. Science, 2019, 364, .	6.0	148
13	Hyperion's sponge-like appearance. Nature, 2007, 448, 50-53.	13.7	90
14	Stochastic Gravitational Wave Background: Upper Limits in the 10â^'6to 10â^'3Hz Band. Astrophysical Journal, 2003, 599, 806-813.	1.6	89
15	SMART-1 mission to the Moon: Status, first results and goals. Advances in Space Research, 2006, 37, 6-13.	1.2	84
16	The BepiColombo Laser Altimeter (BELA): Concept and baseline design. Planetary and Space Science, 2007, 55, 1398-1413.	0.9	80
17	Jupiter's Gravity Field Halfway Through the Juno Mission. Geophysical Research Letters, 2020, 47, e2019GL086572.	1.5	79
18	DETERMINING TITAN'S SPIN STATE FROMCASSINIRADAR IMAGES. Astronomical Journal, 2008, 135, 1669-1680.	1.9	78

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19	Titan's Topography and Shape at the End of the Cassini Mission. Geophysical Research Letters, 2017, 44, 11,754.	1.5	78
20	Cassini Radio Science. Space Science Reviews, 2004, 115, 1-70.	3.7	75
21	Jupiter gravity field estimated from the first two Juno orbits. Geophysical Research Letters, 2017, 44, 4694-4700.	1.5	74
22	A rigid and weathered ice shell on Titan. Nature, 2013, 500, 550-552.	13.7	71
23	MORE: An advanced tracking experiment for the exploration of Mercury with the mission BepiColombo. Acta Astronautica, 2009, 65, 666-675.	1.7	67
24	Stability and control of electrodynamic tethers for de-orbiting applications. Acta Astronautica, 2001, 48, 491-501.	1.7	65
25	Saturn's Deep Atmospheric Flows Revealed by the Cassini Grand Finale Gravity Measurements. Geophysical Research Letters, 2019, 46, 616-624.	1.5	65
26	Advanced radio science instrumentation for the mission BepiColombo to Mercury. Planetary and Space Science, 2001, 49, 1597-1608.	0.9	64
27	Astra: Interdisciplinary study on enhancement of the end-to-end accuracy for spacecraft tracking techniques. Acta Astronautica, 2014, 94, 699-707.	1.7	62
28	The rotation of LAGEOS. Journal of Geophysical Research, 1991, 96, 2431-2440.	3.3	59
29	Doppler measurement of the solar gravitational deflection. Classical and Quantum Gravity, 1999, 16, 1487-1502.	1.5	50
30	satellite de-orbiting by means of electrodynamic tethers part i: general concepts and requirements. Acta Astronautica, 2002, 50, 399-406.	1.7	43
31	Gravity field and interior of Rhea from Cassini data analysis. Icarus, 2007, 190, 585-593.	1.1	43
32	Precise Cassini Navigation During Solar Conjunctions Through Multifrequency Plasma Calibrations. Journal of Guidance, Control, and Dynamics, 2004, 27, 251-257.	1.6	38
33	The Huygens Doppler Wind Experiment ' Titan Winds Derived from Probe Radio Frequency Measurements. Space Science Reviews, 2002, 104, 613-640.	3.7	37
34	Titan's cold case files - Outstanding questions after Cassini-Huygens. Planetary and Space Science, 2018, 155, 50-72.	0.9	37
35	PROBING SPACEâ€“TIME IN THE SOLAR SYSTEM: FROM CASSINI TO BEPICOLOMBO. International Journal of Modern Physics D, 2007, 16, 2117-2126.	0.9	34
36	Can Cassini detect a subsurface ocean in Titan from gravity measurements?. Icarus, 2008, 194, 711-720.	1.1	34

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37	Rhea gravity field and interior modeling from Cassini data analysis. Icarus, 2016, 264, 264-273.	1.1	34
38	SMART-1 mission to the moon: Technology and science goals. Advances in Space Research, 2003, 31, 2323-2333.	1.2	33
39	The Juno Gravity Science Instrument. Space Science Reviews, 2017, 213, 205-218.	3.7	32
40	Matter wave explorer of gravity (MWXG). Experimental Astronomy, 2009, 23, 611-649.	1.6	30
41	An analysis of the geodesy and relativity experiments of BepiColombo. Icarus, 2018, 301, 9-25.	1.1	30
42	The determination of the post-Newtonian parameter Î³ during the cruise phase of BepiColombo. Classical and Quantum Gravity, 2017, 34, 075002.	1.5	29
43	Gravity, Geodesy and Fundamental Physics with BepiColomboâ€™s MORE Investigation. Space Science Reviews, 2021, 217, 1.	3.7	28
44	SATELLITE DE-ORBITING BY MEANS OF ELECTRODYNAMIC TETHERS PART II: SYSTEM CONFIGURATION AND PERFORMANCE. Acta Astronautica, 2002, 50, 407-416.	1.7	27
45	Current-voltage characteristic of the TSS-1R satellite: Comparison with isotropic and anisotropic models. Geophysical Research Letters, 1998, 25, 749-752.	1.5	26
46	The exploration of Titan with an orbiter and a lake probe. Planetary and Space Science, 2014, 104, 78-92.	0.9	26
47	Optimizing Data Volume Return for Ka-Band Deep Space Links Exploiting Short-Term Radiometeorological Model Forecast. IEEE Transactions on Antennas and Propagation, 2016, 64, 235-250.	3.1	26
48	Geodesy, Geophysics and Fundamental Physics Investigations of the BepiColombo Mission. Space Science Reviews, 2021, 217, 1.	3.7	25
49	A nonâ€hydrostatic Rhea. Geophysical Research Letters, 2008, 35, .	1.5	22
50	Small Mission Design for Testing In-Orbit an Electrodynamic Tether Deorbiting System. Journal of Spacecraft and Rockets, 2006, 43, 883-892.	1.3	21
51	Probing the depth of Jupiterâ€™s Great Red Spot with the Juno gravity experiment. Icarus, 2016, 267, 232-242.	1.1	20
52	Mass and interior of Enceladus from Cassini data analysis. Icarus, 2007, 190, 175-178.	1.1	18
53	The depth of Jupiterâ€™s Great Red Spot constrained by Juno gravity overflights. Science, 2021, 374, 964-968.	6.0	18
54	The Determination of the Rotational State and Interior Structure of Venus with VERITAS. Planetary Science Journal, 2021, 2, 220.	1.5	18

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55	The Cassini gravitational wave experiment. , 2003, 4856, 90.		17
56	The effect of the motion of the Sun on the light-time in interplanetary relativity experiments. Classical and Quantum Gravity, 2008, 25, 045013.	1.5	17
57	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
58	The RETE experiment for the TSS-1 mission. Il Nuovo Cimento Della SocietÃ Italiana Di Fisica C, 1994, 17, 101-121.	0.2	15
59	Mercury's gravity field from the first six months of MESSENGER data. Planetary and Space Science, 2013, 81, 55-64.	0.9	15
60	The rotational dynamics of Titan from Cassini RADAR images. Icarus, 2016, 275, 183-192.	1.1	15
61	The effect of Jupiter oscillations on Juno gravity measurements. Icarus, 2017, 282, 174-182.	1.1	15
62	The Cassini solar Faraday rotation experiment. Advances in Space Research, 2005, 36, 1587-1594.	1.2	14
63	Reducing antenna mechanical noise in precision spacecraft tracking. Radio Science, 2008, 43, .	0.8	14
64	Same beam interferometry as a tool for the investigation of the lunar interior. Planetary and Space Science, 2012, 74, 194-201.	0.9	13
65	The BepiColombo solar conjunction experiments revisited. Classical and Quantum Gravity, 2021, 38, 055002.	1.5	11
66	Doppler experiments with Cassini radio system. Il Nuovo Cimento Della SocietÃ Italiana Di Fisica C, 1992, 15, 1193-1198.	0.2	10
67	Estimating Jupiterâ€™s Gravity Field Using Juno Measurements, Trajectory Estimation Analysis, and a Flow Model Optimization. Astronomical Journal, 2017, 154, 2.	1.9	10
68	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
69	SMART-1 after lunar capture: First results and perspectives. Journal of Earth System Science, 2005, 114, 689-697.	0.6	9
70	Plasma waves in the sheath of the TSS-1R satellite. Geophysical Research Letters, 1998, 25, 421-424.	1.5	8
71	Environments in the Outer Solar System. Space Science Reviews, 2010, 153, 11-59.	3.7	8
72	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

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73	Linear Stability Analysis of Electrodynamic Tethers. Journal of Guidance, Control, and Dynamics, 2005, 28, 843-849.	1.6	7
74	Survey of Capabilities and Applications of Accurate Clocks: Directions for Planetary Science. Space Science Reviews, 2017, 212, 1433-1451.	3.7	7
75	Doppler search for a gravitational background radiation with two spacecraft. General Relativity and Gravitation, 1985, 17, 1043-1058.	0.7	6
76	Effect of particle drag on the LAGEOS node and measurement of the gravitomagnetic field. Societa Italiana Di Fisica Nuovo Cimento B-General Physics, Relativity Astronomy and Mathematical Physics and Methods, 1990, 105, 573-588.	0.2	6
77	Spaceâ€time localization of inner heliospheric plasma turbulence using multiple spacecraft radio links. Space Weather, 2009, 7, .	1.3	6
78	Testing general relativity during the cruise phase of the BepiColombo mission to Mercury. , 2015, , .		6
79	Constraining the Internal Structures of Venus and Mars from the Gravity Response to Atmospheric Loading. Planetary Science Journal, 2022, 3, 164.	1.5	6
80	The Cassini solar conjunction experiment: a new test of general relativity. , 2003, , .		5
81	Differential Doppler tracking of interplanetary spacecraft. Il Nuovo Cimento Della SocietÃ Italiana Di Fisica C, 1987, 10, 235-246.	0.2	4
82	Sensitivity study of systematic errors in the BepiColombo relativity experiment. , 2016, , .		4
83	Parallel proton heating in the solar wind by oblique AlfvÃ©n waves. Il Nuovo Cimento Della SocietÃ Italiana Di Fisica C, 1986, 9, 1035-1044.	0.2	3
84	Evaluation of deep space Ka-band data transfer using radiometeorological forecast models. , 2014, , .		3
85	Hardware Prototyping and Validation of a W-Î”DOR Digital Signal Processor. Applied Sciences (Switzerland), 2019, 9, 2909.	1.3	3
86	Spacecraft Doppler tracking with a VLBI antenna. Il Nuovo Cimento Della SocietÃ Italiana Di Fisica C, 1990, 13, 169-176.	0.2	1
87	Microsatellites and space station for science and technology utilisation. Acta Astronautica, 1996, 39, 605-616.	1.7	1
88	The measurement of Titan rotational state by means of SAR imaging. , 2008, , .		1
89	The cross-link tecnique for deep space missions. , 2009, , .		1
90	Interaction of a hollow-cathode source with an ionospheric plasma. Advances in Space Research, 1990, 10, 147-150.	1.2	0

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91	Coupling radio propagation and weather forecast models to maximize Ka-band channel transmission rate for interplanetary missions. , 2015, , .		0
92	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