Slava G Turyshev

List of Publications by Year
in descending order

106	3,815	186265	133252
papers	citations	28 h-index	59 g-index

109	109	109	1620
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Multipole decomposition of gravitational lensing. Physical Review D, 2022, 105, .	4.7	5
2	Navigating stellar wobbles for imaging with the solar gravitational lens. Physical Review D, 2022, 105, .	4.7	7
3	A fast response mission to rendezvous with an interstellar object. Experimental Astronomy, 2022, 53, 945-960.	3.7	8
4	Recovering the mass distribution of an extended gravitational lens. Monthly Notices of the Royal Astronomical Society, 2022, 513, 5355-5376.	4.4	4
5	Diffraction of electromagnetic waves by an extended gravitational lens. Physical Review D, 2021, 103, .	4.7	22
6	Image recovery with the solar gravitational lens. Physical Review D, 2021, 103, .	4.7	16
7	Optical properties of an extended gravitational lens. Physical Review D, 2021, 104, .	4.7	15
8	Gravitational lensing by an extended mass distribution. Physical Review D, 2021, 104, .	4.7	8
9	Imaging point sources with the gravitational lens of an extended sun. Physical Review D, 2021, 104, .	4.7	9
10	Wave-optical study of the Einstein cross formed by a quadrupole gravitational lens. Physical Review D, 2021, 104, .	4.7	11
11	Image formation for extended sources with the solar gravitational lens. Physical Review D, 2020, 102, .	4.7	25
12	Photometric imaging with the solar gravitational lens. Physical Review D, 2020, 101, .	4.7	14
13	Image formation process with the solar gravitational lens. Physical Review D, 2020, 101, .	4.7	20
14	Putting gravity to work: Imaging of exoplanets with the solar gravitational lens. International Journal of Modern Physics D, 2019, 28, 1950125.	2.1	3
15	Optical properties of the solar gravitational lens in the presence of the solar corona. European Physical Journal Plus, 2019, 134, 1.	2.6	9
16	Diffraction of light by plasma in the solar system. Journal of Optics (United Kingdom), 2019, 21, 045601.	2.2	13
17	Diffraction of light by the gravitational field of the Sun and the solar corona. Physical Review D, 2019, 99, .	4.7	28
18	Imaging extended sources with the solar gravitational lens. Physical Review D, 2019, 100, .	4.7	24

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19	Wave-optical treatment of the shadow cast by a large sphere. Physical Review A, 2018, 97, .	2.5	11
20	Wave-optical treatment of the shadow cast by a large gravitating sphere. Physical Review D, 2018, 98, .	4.7	12
21	Accurate Ground-based Near-Earth-Asteroid Astrometry Using Synthetic Tracking. Astronomical Journal, 2018, 156, 65.	4.7	9
22	A constellation of MicroSats to search for NEOs. , 2018, , .		0
23	Survey of Capabilities and Applications of Accurate Clocks: Directions for Planetary Science. Space Science Reviews, 2017, 212, 1433-1451.	8.1	7
24	A constellation of SmallSats with synthetic tracking cameras to search for 90% of potentially hazardous near-Earth objects. Astronomy and Astrophysics, 2017, 603, A126.	5.1	8
25	Diffraction of electromagnetic waves in the gravitational field of the Sun. Physical Review D, 2017, 96, .	4.7	47
26	Wave-theoretical description of the solar gravitational lens. Physical Review D, 2017, 95, .	4.7	22
27	Using optical communications links for deep-space navigation. , 2017, , .		2
28	Survey of Capabilities and Applications of Accurate Clocks: Directions for Planetary Science. Space Sciences Series of ISSI, 2017, , 163-181.	0.0	0
29	Science, technology and mission design for LATOR experiment. , 2017, , .		0
30	Nanoradian ground-based astrometry, optical navigation, and artificial reference stars. , 2016, , .		1
31	Simulating social-ecological systems: the Island Digital Ecosystem Avatars (IDEA) consortium. GigaScience, 2016, 5, 14.	6.4	15
32	General relativistic observables for the ACES experiment. Physical Review D, 2016, 93, .	4.7	13
33	Solar lens mission concept for interstellar exploration. , 2015, , .		0
34	New perturbative method for solving the gravitational N-body problem in the general theory of relativity. International Journal of Modern Physics D, 2015, 24, 1550039.	2.1	15
35	General relativistic laser interferometric observables of the GRACE-Follow-On mission. Physical Review D, 2014, 89, .	4.7	26
36	FINDING VERY SMALL NEAR-EARTH ASTEROIDS USING SYNTHETIC TRACKING. Astrophysical Journal, 2014, 782, 1.	4.5	51

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37	DETECTION OF A FAINT FAST-MOVING NEAR-EARTH ASTEROID USING THE SYNTHETIC TRACKING TECHNIQUE. Astrophysical Journal, 2014, 792, 60.	4.5	30
38	The past and present Earth-Moon system: the speed of light stays steady as tides evolve. Planetary Science, 2014, 3, 2.	1.5	23
39	Testing Fundamental Gravitation in Space. Nuclear Physics, Section B, Proceedings Supplements, 2013, 243-244, 197-202.	0.4	3
40	Corner-cube retro-reflector instrument for advanced lunar laser ranging. Experimental Astronomy, 2013, 36, 105-135.	3.7	27
41	General relativistic observables of the GRAIL mission. Physical Review D, 2013, 87, .	4.7	28
42	Accelerating relativistic reference frames in Minkowski space-time. Journal of Mathematical Physics, 2012, 53, 032501.	1.1	11
43	Finding the source of the pioneer anomaly. IEEE Spectrum, 2012, 49, 38-62.	0.7	3
44	Lunar laser ranging tests of the equivalence principle. Classical and Quantum Gravity, 2012, 29, 184004.	4.0	125
45	GETEMMEâ€"a mission to explore the Martian satellites and the fundamentals of solar system physics. Experimental Astronomy, 2012, 34, 243-271.	3.7	17
46	Support for the Thermal Origin of the Pioneer Anomaly. Physical Review Letters, 2012, 108, 241101.	7.8	125
47	Support for Temporally Varying Behavior of the Pioneer Anomaly from the Extended Pioneer 10 and 11 Doppler Data Sets. Physical Review Letters, 2011, 107, 081103.	7.8	44
48	The Pioneer Anomaly. Living Reviews in Relativity, 2010, 13, 4.	26.7	113
49	Advancing tests of relativistic gravity via laser ranging to Phobos. Experimental Astronomy, 2010, 28, 209-249.	3.7	50
50	Solar-system tests of relativistic gravity. , 2010, , .		0
51	Testing General Relativity in the Solar System: Present Status and Possible Future Developments. , 2010, , .		1
52	A SEARCH FOR NEW PHYSICS WITH THE BEACON MISSION. International Journal of Modern Physics D, 2009, 18, 1025-1038.	2.1	24
53	LUNAR LASER RANGING TESTS OF THE EQUIVALENCE PRINCIPLE WITH THE EARTH AND MOON. International Journal of Modern Physics D, 2009, 18, 1129-1175.	2.1	140
54	SPACE-BASED TESTS OF GRAVITY WITH LASER RANGING. , 2009, , 293-307.		0

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55	â€œGalileo Galileiâ€•(GG) a small satellite to test the equivalence principle of Galileo, Newton and Einstein. Experimental Astronomy, 2009, 23, 689-710.	3.7	22
56	Astrodynamical Space Test of Relativity Using Optical Devices I (ASTROD I)â€”A class-M fundamental physics mission proposal for Cosmic Vision 2015â€“2025. Experimental Astronomy, 2009, 23, 491-527.	3.7	30
57	The Pioneer Anomaly in the Light of New Data. Space Science Reviews, 2009, 148, 149-167.	8.1	23
58	The Puzzle of the Flyby Anomaly. Space Science Reviews, 2009, 148, 169-174.	8.1	22
59	Thermal recoil force, telemetry, and the Pioneer anomaly. Physical Review D, 2009, 79, .	4.7	20
60	SPACE-BASED RESEARCH IN FUNDAMENTAL PHYSICS AND QUANTUM TECHNOLOGIES. , 2009, , 3-49.		0
61	Tests of relativistic gravity from space. Proceedings of the International Astronomical Union, 2009, 5, 204-208.	0.0	0
62	The Pioneer Anomaly in the Light of New Data. Space Sciences Series of ISSI, 2009, , 149-167.	0.0	0
63	LASER ASTROMETRIC TEST OF RELATIVITY: SCIENCE, TECHNOLOGY AND MISSION DESIGN. , 2009, , 319-331.		0
64	Experimental Tests of General Relativity. Annual Review of Nuclear and Particle Science, 2008, 58, 207-248.	10.2	121
65	Pioneer Anomaly: Evaluating Newly Recovered Data. AIP Conference Proceedings, 2008, , .	0.4	16
66	General Theory of Relativity: Will It Survive the Next Decade?. Astrophysics and Space Science Library, 2008, , 27-74.	2.7	47
67	Lunar Laser Ranging Contributions to Relativity and Geodesy. Astrophysics and Space Science Library, 2008, , 457-472.	2.7	58
68	Science, Technology, and Mission Design for the Laser Astrometric Test of Relativity. Astrophysics and Space Science Library, 2008, , 473-543.	2.7	4
69	LASER ASTROMETRIC TEST OF RELATIVITY: SCIENCE, TECHNOLOGY AND MISSION DESIGN. International Journal of Modern Physics D, 2007, 16, 2191-2203.	2.1	21
70	Williams, Turyshev, and Boggs Reply:. Physical Review Letters, 2007, 98, .	7.8	14
71	SPACE-BASED TESTS OF GRAVITY WITH LASER RANGING. International Journal of Modern Physics D, 2007, 16, 2165-2179.	2.1	61
72	SPACE-BASED RESEARCH IN FUNDAMENTAL PHYSICS AND QUANTUM TECHNOLOGIES. International Journal of Modern Physics D, 2007, 16, 1879-1925.	2.1	41

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73	Lessons learned from the Pioneers 10/11 for a mission to test the Pioneer anomaly. Advances in Space Research, 2007, 39, 291-296.	2.6	14
74	Mission design for the laser astrometric test of relativity. Advances in Space Research, 2007, 39, 297-304.	2.6	0
75	Potential Capabilities of Lunar Laser Ranging for Geodesy and Relativity. , 2007, , 903-909.		9
76	Lunar laser ranging science: Gravitational physics and lunar interior and geodesy. Advances in Space Research, 2006, 37, 67-71.	2.6	59
77	The Pioneer anomaly: seeking an explanation in newly recovered data. Canadian Journal of Physics, 2006, 84, 1063-1087.	1.1	18
78	A STUDY OF THE PIONEER ANOMALY: NEW DATA AND OBJECTIVES FOR NEW INVESTIGATION. International Journal of Modern Physics D, 2006, 15, 1-55.	2.1	59
79	The Pioneer Anomaly: The Data, its Meaning, and a Future Test. AIP Conference Proceedings, 2005, , .	0.4	4
80	Directly measured limit on the interplanetary matter density from Pioneer 10 and 11. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2005, 613, 11-19.	4.1	36
81	Study of the Pioneer anomaly: A problem set. American Journal of Physics, 2005, 73, 1033-1044.	0.7	29
82	The laser astrometric test of relativity mission. Classical and Quantum Gravity, 2004, 21, 2773-2799.	4.0	72
83	35 Years of Testing Relativistic Gravity: Where Do We Go from Here?. Lecture Notes in Physics, 2004, , 311-330.	0.7	25
84	Finding the origin of the Pioneer anomaly. Classical and Quantum Gravity, 2004, 21, 4005-4023.	4.0	47
85	IMPROVING LLR TESTS OF GRAVITATIONAL THEORY. International Journal of Modern Physics D, 2004, 13, 567-582.	2.1	83
86	EXPERIMENTAL DESIGN FOR THE LATOR MISSION. International Journal of Modern Physics D, 2004, 13, 2035-2063.	2.1	27
87	New concept for testing General Relativity: the Laser Astrometric Test Of Relativity (LATOR) mission. Astronomische Nachrichten, 2004, 325, 267-277.	1.2	15
88	The Laser Astrometric Test of Relativity Mission. Nuclear Physics, Section B, Proceedings Supplements, 2004, 134, 171-178.	0.4	4
89	Progress in Lunar Laser Ranging Tests of Relativistic Gravity. Physical Review Letters, 2004, 93, 261101.	7.8	515
90	MEASURING THE INTERPLANETARY MEDIUM WITH A SOLAR SAIL. International Journal of Modern Physics D, 2004, 13, 899-906.	2.1	7

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91	Pioneer anomaly put to the test. Physics World, 2004, 17, 21-22.	0.0	4
92	Analytical modeling of the white-light fringe. Applied Optics, 2003, 42, 71.	2.1	7
93	Modeling the white light fringe. , 2003, , .		0
94	A MISSION TO TEST THE PIONEER ANOMALY. International Journal of Modern Physics D, 2002, 11, 1545-1551.	2.1	27
95	SEARCH FOR A STANDARD EXPLANATION OF THE PIONEER ANOMALY. Modern Physics Letters A, 2002, 17, 875-885.	1.2	53
96	Study of the anomalous acceleration of Pioneer 10 and 11. Physical Review D, 2002, 65, .	4.7	387
97	Effect of wave-number error on the computation of path-length delay in white-light interferometry. Applied Optics, 2002, 41, 4884.	2.1	7
98	Andersonet al.Reply:. Physical Review Letters, 1999, 83, 1891-1891.	7.8	20
99	Andersonet al.Reply:. Physical Review Letters, 1999, 83, 1893-1893.	7.8	18
100	Indication, from Pioneer 10/11, Galileo, and Ulysses Data, of an Apparent Anomalous, Weak, Long-Range Acceleration. Physical Review Letters, 1998, 81, 2858-2861.	7.8	449
101	Science with the Space Interferometry Mission. , 1998, , .		4
102	Relativity studies with high-precision astrometry. , 1998, 3350, 139.		0
103	Are the Singularities Stable?. General Relativity and Gravitation, 1997, 29, 417-433.	2.0	3
104	Black holes with regular horizons in Maxwell-scalar gravity. Canadian Journal of Physics, 1996, 74, 17-28.	1.1	3
105	The Solar Test of the Equivalence Principle. Astrophysical Journal, 1996, 459, 365.	4.5	54
106	A new solution for dilaton-Maxwell gravity. General Relativity and Gravitation, 1995, 27, 981-987.	2.0	5