Glenn D Starkman

List of Publications by Year
in descending order

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161 papers	7,534 citations	57631 44 h-index	54797 84 g-index
161 all docs	161 docs citations	161 times ranked	5522 citing authors

#	Article	IF	Citations
1	Is the Low-â„“Microwave Background Cosmic?. Physical Review Letters, 2004, 93, 221301.	2.9	371
2	Beyond<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" altimg="si33.gif" display="inline" overflow="scroll"><mml:mi>Î›</mml:mi><mml:mstyle mathvariant="normal"><mml:mi>CDM</mml:mi></mml:mstyle></mml:math>: Problems, solutions, and the road ahead. Physics of the Dark Universe, 2016, 12, 56-99.	1.8	361
3	Cosmology intertwined: A review of the particle physics, astrophysics, and cosmology associated with the cosmological tensions and anomalies. Journal of High Energy Astrophysics, 2022, 34, 49-211.	2.4	350
4	Probing Newtonâ€™s constant on vast scales: Dvali-Gabadadze-Porrati gravity, cosmic acceleration, and large scale structure. Physical Review D, 2004, 69, .	1.6	281
5	Multipole vectors: A new representation of the CMB sky and evidence for statistical anisotropy or non-Gaussianity at 2â©½lâ©½8. Physical Review D, 2004, 70, .	1.6	254
6	Parametrization of Dark-Energy Properties: A Principal-Component Approach. Physical Review Letters, 2003, 90, 031301.	2.9	250
7	CMB anomalies after Planck. Classical and Quantum Gravity, 2016, 33, 184001.	1.5	232
8	On the large-angle anomalies of the microwave sky. Monthly Notices of the Royal Astronomical Society, 2006, 367, 79-102.	1.6	226
9	Uncorrelated universe: Statistical anisotropy and the vanishing angular correlation function in WMAP years 1â€“3. Physical Review D, 2007, 75, .	1.6	213
10	Circles in the sky: finding topology with the microwave background radiation. Classical and Quantum Gravity, 1998, 15, 2657-2670.	1.5	192
11	Systematic SO(10) operator analysis for fermion masses. Physical Review D, 1994, 49, 3660-3690.	1.6	183
12	Differentiating between modified gravity and dark energy. Physical Review D, 2004, 69, .	1.6	175
13	Opening the window on strongly interacting dark matter. Physical Review D, 1990, 41, 3594-3603.	1.6	174
14	Large-Angle Anomalies in the CMB. Advances in Astronomy, 2010, 2010, 1-17.	0.5	174
15	Compact Hyperbolic Extra Dimensions: Branes, Kaluza-Klein Modes, and Cosmology. Physical Review Letters, 2000, 85, 928-931.	2.9	165
16	Gravitational leakage into extra dimensions: Probing dark energy using local gravity. Physical Review D, 2003, 67, .	1.6	165
17	Constraining the Topology of the Universe. Physical Review Letters, 2004, 92, 201302.	2.9	164
18	Is the universe closed by baryons? Nucleosynthesis with a late-decaying massive particle. Astrophysical Journal, 1988, 330, 545.	1.6	146

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19	How a brane cosmological constant can trick us into thinking thatw<â^'1. Physical Review D, 2004, 70, .	1.6	140
20	Getting a charge out of dark matter. Physical Review D, 1990, 41, 2388-2397.	1.6	129
21	No large-angle correlations on the non-Galactic microwave sky. Monthly Notices of the Royal Astronomical Society, 2009, 399, 295-303.	1.6	123
22	Limits on late decaying particles from nucleosynthesis. Nuclear Physics B, 1989, 311, 699-718.	0.9	103
23	BlackMax: A black-hole event generator with rotation, recoil, split branes, and brane tension. Physical Review D, 2008, 77, .	1.6	92
24	Macro dark matter. Monthly Notices of the Royal Astronomical Society, 2015, 450, 3418-3430.	1.6	91
25	Homogeneity, Flatness, and â€œLargeâ€•Extra Dimensions. Physical Review Letters, 2001, 87, 231303.	2.9	90
26	Cross sections for lepton- and baryon-number-violating processes from supersymmetry atp-pÂ¯ colliders. Physical Review D, 1990, 41, 2099-2112.	1.6	88
27	Vector-tensor nature of Bekensteinâ€™s relativistic theory of modified gravity. Physical Review D, 2006, 74, .	1.6	87
28	Large extra dimensions and cosmological problems. Physical Review D, 2001, 63, .	1.6	86
29	Does Chaotic Mixing Facilitateî©<1Inflation?. Physical Review Letters, 1996, 77, 215-218.	2.9	84
30	Life, the Universe, and Nothing: Life and Death in an Everâ€expanding Universe. Astrophysical Journal, 2000, 531, 22-30.	1.6	80
31	CMB-S4: Forecasting Constraints on Primordial Gravitational Waves. Astrophysical Journal, 2022, 926, 54.	1.6	79
32	Improved constraints on cosmological parameters from Type Ia supernova data. Monthly Notices of the Royal Astronomical Society, 2011, 418, 2308-2329.	1.6	75
33	Departures from the Friedmann-Lemaitre-Robertston-Walker Cosmological Model in an Inhomogeneous Universe: A Numerical Examination. Physical Review Letters, 2016, 116, 251301.	2.9	74
34	Topology and cosmology. Classical and Quantum Gravity, 1998, 15, 2529-2538.	1.5	67
35	Big bang nucleosynthesis constraints on primordial magnetic fields. Physical Review D, 1996, 54, 7207-7214.	1.6	65
36	Large-scale alignments from WMAP and Planck. Monthly Notices of the Royal Astronomical Society, 2015, 449, 3458-3470.	1.6	63

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37	Laboratory limits on solar axions from an ultralow-background germanium spectrometer. Physical Review D, 1987, 35, 2752-2757.	1.6	58
38	Extending the WMAP bound on the size of the Universe. Physical Review D, 2007, 75, .	1.6	55
39	Lack of large-angle TT correlations persists in WMAP and Planck. Monthly Notices of the Royal Astronomical Society, 2015, 451, 2978-2985.	1.6	55
40	Can COBE see the shape of the universe?. Physical Review D, 1998, 57, 5982-5996.	1.6	51
41	Solving the cosmic lithium problems with primordial late-decaying particles. Physical Review D, 2007, 76, .	1.6	50
42	OBSERVABLE DEVIATIONS FROM HOMOGENEITY IN AN INHOMOGENEOUS UNIVERSE. Astrophysical Journal, 2016, 833, 247.	1.6	48
43	Primordial nucleosynthesis without a computer. Astrophysical Journal, 1991, 378, 504.	1.6	47
44	TheBig Occulting Steerable Satellite(BOSS). Astrophysical Journal, 2000, 532, 581-592.	1.6	46
45	Integration of inhomogeneous cosmological spacetimes in the BSSN formalism. Physical Review D, 2016, 93, .	1.6	46
46	Kiloelectronvolt-Era Nucleosynthesis and Its Implications. Physical Review Letters, 1988, 60, 7-10.	2.9	44
47	Radion stabilization in compact hyperbolic extra dimensions. Physical Review D, 2002, 66, .	1.6	42
48	A quantitative measure of structure in the three-dimensional galaxy distribution - Sheets and filaments. Astrophysical Journal, 1992, 401, 28.	1.6	42
49	Stellar energy transfer by keV-mass scalars. Physical Review D, 1989, 40, 942-947.	1.6	41
50	Holes in the walls: Primordial black holes as a solution to the cosmological domain wall problem. Physical Review D, 2005, 72, .	1.6	40
51	Atomic enhancements in the detection of weakly interacting particles. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 1986, 168, 145-150.	1.5	39
52	Evaporation of a black hole off of a tense brane. Physical Review D, 2007, 75, .	1.6	39
53	Measuring the topology of the universe. Proceedings of the National Academy of Sciences of the United States of America, 1998, 95, 82-84.	3.3	34
54	Dark energy, colored antiâ€“de Sitter vacuum, and the CERN Large Hadron Collider phenomenology. Physical Review D, 2008, 77, .	1.6	32

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55	Large-angle cosmic microwave background suppression and polarization predictions. Monthly Notices of the Royal Astronomical Society, 2013, 434, 3590-3596.	1.6	32
56	Constraints on the topology of the Universe: Extension to general geometries. Physical Review D, 2012, 86, .	1.6	31
57	Einsteinâ€™s Theory of Gravity and the Problem of Missing Mass. Science, 2009, 326, 812-815.	6.0	30
58	Missing power vs low-â„“ alignments in the cosmic microwave background: No correlation in the standard cosmological model. Astroparticle Physics, 2011, 34, 591-594.	1.9	30
59	Axiorecombination: A new mechanism for stellar axion production. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 1986, 179, 223-227.	1.5	29
60	Zero modes of fermions with a general mass matrix. Physical Review D, 2002, 65, .	1.6	27
61	Neutrino zero modes on electroweak strings. Physical Review D, 2001, 63, .	1.6	26
62	Limited accuracy of linearized gravity. Physical Review D, 2019, 99, .	1.6	25
63	Beating non-linearities: improving the baryon acoustic oscillations with the linear point. Monthly Notices of the Royal Astronomical Society, 2016, 455, 2474-2483.	1.6	23
64	Observation of Cosmic Acceleration and Determining the Fate of the Universe. Physical Review Letters, 1999, 83, 1510-1513.	2.9	22
65	Production of black holes and their angular momentum distribution in models with split fermions. Physical Review D, 2006, 73, .	1.6	22
66	Why Anthropic Reasoning Cannot Predictî›. Physical Review Letters, 2006, 97, 201301.	2.9	22
67	Generalized Einstein-Aether theories and the Solar System. Physical Review D, 2008, 77, .	1.6	22
68	Why Black Hole Production in Scattering of Cosmic Ray Neutrinos Is Generically Suppressed. Physical Review Letters, 2006, 96, 041303.	2.9	20
69	Gravitational lenses in generalized Einstein-aether theory: The bullet cluster. Physical Review D, 2008, 78, .	1.6	20
70	Should we doubt the cosmological constant?. Monthly Notices of the Royal Astronomical Society, 2011, 410, 2488-2496.	1.6	20
71	INFORMATION-PRESERVING BLACK HOLES STILL DO NOT PRESERVE BARYON NUMBER AND OTHER EFFECTIVE GLOBAL QUANTUM NUMBERS. International Journal of Modern Physics D, 2005, 14, 2293-2300.	0.9	19
72	General relativistic corrections to the weak lensing convergence power spectrum. Physical Review D, 2017, 96, .	1.6	19

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73	Galaxy Correlation Functions Provide a More Robust Cosmological Standard Ruler. Physical Review Letters, 2018, 121, 021302.	2.9	19
74	Proposed New Technique for Detecting Supersymmetric Dark Matter. Physical Review Letters, 1995, 74, 2623-2625.	2.9	18
75	Cosmic distance inference from purely geometric BAO methods: Linear point standard ruler and correlation function model fitting. Physical Review D, 2019, 99, .	1.6	18
76	Squeezing MOND into a Cosmological Scenario. Physical Review Letters, 2004, 92, 131102.	2.9	17
77	Retarded Greenâ€™s functions in perturbed spacetimes for cosmology and gravitational physics. Physical Review D, 2011, 84, .	1.6	17
78	A cosmologically motivated reference formulation of numerical relativity. Classical and Quantum Gravity, 2017, 34, 214001.	1.5	17
79	Linear point standard ruler for galaxy survey data: Validation with mock catalogs. Physical Review D, 2018, 98, .	1.6	17
80	Resonant bar detector constraints on macro dark matter. Physical Review D, 2015, 91, .	1.6	16
81	Macroscopic dark matter constraints from bolide camera networks. Physical Review D, 2019, 100, .	1.6	16
82	Bias in low-multipole cosmic microwave background reconstructions. Monthly Notices of the Royal Astronomical Society, 2011, 418, 505-515.	1.6	15
83	Modifying gravity: you cannot always get what you want. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2011, 369, 5018-5041.	1.6	14
84	Neutrino lasing in the early Universe. Physical Review Letters, 1993, 71, 1128-1131.	2.9	13
85	WIMP abundance and lepton (flavour) asymmetry. Journal of Cosmology and Astroparticle Physics, 2012, 2012, 040-040.	1.9	13
86	Microwave background polarization as a probe of large-angle correlations. Physical Review D, 2015, 91, .	1.6	13
87	Using Quasars as Standard Clocks for Measuring Cosmological Redshift. Physical Review Letters, 2012, 108, 231302.	2.9	12
88	Galactic cosmic strings as sources of primary antiprotons. Physical Review D, 1996, 53, R6711-R6714.	1.6	11
89	Anthropic Arguments and the Cosmological Constant, with and without the Assumption of Typicality. Physical Review Letters, 2008, 100, 041301.	2.9	11
90	Consequences of the absence of Birkhoffâ€™s theorem in modified-gravity theories: The Dvali-Gabadaze-Porrati model. Physical Review D, 2008, 77, .	1.6	11

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91	Macro detection using fluorescence detectors. Journal of Cosmology and Astroparticle Physics, 2019, 2019, 037-037.	1.9	11
92	Linear point and sound horizon as purely geometric standard rulers. Physical Review D, 2020, 101, .	1.6	11
93	Death and serious injury from dark matter. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2020, 803, 135300.	1.5	11
94	Sensitivity of Redshift Distortion Measurements to Cosmological Parameters. Astrophysical Journal, 1998, 501, 427-441.	1.6	11
95	Difficulties in explaining the cosmic photon excess with compact composite object dark matter. Physical Review D, 2008, 77, .	1.6	10
96	Probing large-angle correlations with the microwave background temperature and lensing cross-correlation. Monthly Notices of the Royal Astronomical Society, 2014, 442, 2392-2397.	1.6	10
97	Comment on â€œConstraints on the strength of primordial magnetic fields from big bang nucleosynthesis reexaminedâ€• Physical Review D, 1997, 56, 3766-3767.	1.6	9
98	Limited utility of Birkhoffâ€™s theorem in modified Newtonian dynamics: Nonzero accelerations inside a shell. Physical Review D, 2010, 81, .	1.6	9
99	Pre-Hawking radiation from a collapsing shell. Journal of Cosmology and Astroparticle Physics, 2011, 2011, 024-024.	1.9	9
100	Reconsidering astrophysical constraints on macroscopic dark matter. Physical Review D, 2020, 101, .	1.6	9
101	Antimatter as macroscopic dark matter. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2020, 807, 135574.	1.5	9
102	Family Replication in the Dual Standard Model. Physical Review Letters, 1997, 78, 1223-1226.	2.9	8
103	The Fate of Life in the Universe. Scientific American, 1999, 281, 58-65.	1.0	8
104	Is the universe inflating? Dark energy and the future of the universe. Physical Review D, 2002, 66, .	1.6	8
105	LATE TIME DECAY OF THE FALSE VACUUM, MEASUREMENT, AND QUANTUM COSMOLOGY. International Journal of Modern Physics D, 2008, 17, 2501-2505.	0.9	8
106	It is hard to learn how gravity and electromagnetism couple. Physical Review D, 2010, 82, .	1.6	8
107	The ISW effect and the lack of large-angle CMB temperature correlations. Monthly Notices of the Royal Astronomical Society, 2016, 463, 3305-3310.	1.6	8
108	Waves from the centre: probing PBH and other macroscopic dark matter with LISA. European Physical Journal C, 2020, 80, 1.	1.4	8

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109	Two-loop calculation of the effective potential for the Wess-Zumino model. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 1983, 133, 393-397.	1.5	7
110	Almost-standard big-bang nucleosynthesis withÎ©Bh20››0.015: A reexamination of neutrino chemical potentials andÎ”G. Physical Review D, 1992, 45, 476-480.	1.6	7
111	How frustrated strings would pull the black holes from the centers of galaxies. Physical Review D, 2001, 63, .	1.6	7
112	Is the Universe Out of Tune?. Scientific American, 2005, 293, 48-55.	1.0	7
113	Externally occulted terrestrial planet finder coronagraph: simulations and sensitivities. Proceedings of SPIE, 2007, , .	0.8	7
114	Electroweak stars: how nature may capitalize on the standard model's ultimate fuel. Journal of Cosmology and Astroparticle Physics, 2010, 2010, 004-004.	1.9	7
115	CMB-S4 and the hemispherical variance anomaly. Monthly Notices of the Royal Astronomical Society, 2017, 470, 372-378.	1.6	7
116	Failures of homogeneous and isotropic cosmologies in extended quasidilaton massive gravity. Physical Review D, 2017, 96, .	1.6	7
117	Counter-top search for macroscopic dark matter. Physical Review D, 2019, 100, .	1.6	7
118	Straight lightning as a signature of macroscopic dark matter. Physical Review D, 2021, 103, .	1.6	7
119	Reconsidering seismological constraints on the available parameter space of macroscopic dark matter. Physical Review D, 2017, 95, .	1.6	6
120	Cosmic expansion from spinning black holes. Classical and Quantum Gravity, 2019, 36, 195009.	1.5	6
121	Exploring suppressed long-distance correlations as the cause of suppressed large-angle correlations. Monthly Notices of the Royal Astronomical Society, 2019, 490, 5174-5181.	1.6	6
122	Testing the statistical isotropy of large scale structure with multipole vectors. Physical Review D, 2011, 84, .	1.6	5
123	Degree-scale anomalies in the CMB: Localizing the first peak dip to a small patch of the north ecliptic sky. Physical Review D, 2011, 83, .	1.6	5
124	CMB spectral distortions from cooling macroscopic dark matter. Physical Review D, 2019, 99, .	1.6	5
125	Question of measuring spatial curvature in an inhomogeneous universe. Physical Review D, 2021, 103, .	1.6	5
126	Point particle motion in topologically nontrivial spacetimes. Physical Review D, 2015, 92, .	1.6	4

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127	Extreme parameter sensitivity in quasidilaton massive gravity. Physical Review D, 2015, 92, .	1.6	4
128	Manual of BlackMax. A black-hole event generator with rotation, recoil, split branes, and brane tension. Version 2.02. Computer Physics Communications, 2019, 236, 285-301.	3.0	4
129	Finite-size effects on the self-force. Physical Review D, 2020, 101, .	1.6	4
130	Accurate relativistic observables from postprocessing light cone catalogs. Physical Review D, 2022, 105, .	1.6	4
131	MilkyÂWay and M31 rotation curves: <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mi mathvariant="normal">Î</mml:mi><mml:mi>CDM</mml:mi></mml:math> versus MOND. Physical Review D, 2022, 105, .	1.6	4
132	A detector for the cosmic neutrino background. Nuclear Physics, Section B, Proceedings Supplements, 1991, 19, 241-247.	0.5	3
133	Zero modes on cosmic strings in an external magnetic field. Physical Review D, 2006, 74, .	1.6	3
134	Brane stabilization and regionality of extra dimensions. Physical Review D, 2013, 87, .	1.6	3
135	Neutrino masses and mixing with general mass matrices. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2000, 480, 381-391.	1.5	2
136	Whatâ€™s the trouble with anthropic reasoning?. AIP Conference Proceedings, 2006, , .	0.3	2
137	The virtues of frugality â€" why cosmological observers should release their data slowly. Monthly Notices of the Royal Astronomical Society: Letters, 2010, 401, L15-L18.	1.2	2
138	Surprising phenomena in a rich new class of inflationary models. Journal of Cosmology and Astroparticle Physics, 2010, 2010, 031-031.	1.9	2
139	New geometric representations of the CMB two-point correlation function. Physical Review D, 2015, 92, .	1.6	2
140	Publisherâ€™s Note: Reconsidering seismological constraints on the available parameter space of macroscopic dark matter [Phys. Rev. D 95 , 063006 (2017)]. Physical Review D, 2017, 95, .	1.6	2
141	Hemispherical variance anomaly and reionization optical depth. Monthly Notices of the Royal Astronomical Society, 2020, 499, 3563-3570.	1.6	2
142	How the Universe postpones the evaporation and curtails the quantum spreading of black holes. Physical Review D, 2022, 105, .	1.6	2
143	The angular scale of topologically induced flat spots in the cosmic microwave background radiation. Classical and Quantum Gravity, 2000, 17, 3093-3100.	1.5	1
144	Brane localization and stabilization via regional physics. Journal of High Energy Physics, 2013, 2013, 1.	1.6	1

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145	Strong lensing constraints on modified gravity models. Physical Review D, 2018, 98, .	1.6	1
146	Gravitational Glint: Detectable Gravitational Wave Tails from Stars and Compact Objects. Physical Review Letters, 2022, 128, .	2.9	1
147	Large Extra Dimension and Dark Matter Detection. AIP Conference Proceedings, 2008, , .	0.3	0
148	First second of leptons. Journal of Physics: Conference Series, 2012, 375, 032005.	0.3	0
149	Large scale evolutive systems: what can they teach us?. Rendiconti Lincei, 2015, 26, 261-264.	1.0	0
150	Simulating the universe. Physics World, 2017, 30, 20-23.	0.0	0
151	Global <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:msub><mml:mrow><mml:mi>U</mml:mi><mml:mo stretchy="false">(</mml:mo><mml:mn>1</mml:mn><mml:mo) Tj ETQq1 1 0.784314 rgBT /Overlock 10 Tf 50 507 Td (stretchy="false"> stretchy="false">âŠ—</mml:mo><mml:mi>BRST</mml:mi></mml:mrow></mml:math> symmetry and the LSS	1.6	0
152	Global <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:mi>S</mml:mi><mml:mi>U</mml:mi><mml:mo stretchy="false">(</mml:mo><mml:mn>3</mml:mn><mml:msub><mml:mrow><mml:mo) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 462 Td (stretchy="false">(</mml:mo><mml:mn>2</mml:mn><mml:msub><mml:mrow><mml:mo) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 442 Td	1.6	0
153	Improved Cosmological Constraints from a Bayesian Hierarchical Model of Supernova Type Ia Data. , 2013, , 203-235.		0
154	Modern Physics: Inflation, and the Horizon and Flatness Problems. , 1999, , 1-7.		0
155	Appendix B: Eight Conceptual Questions Answered in the Text. , 1999, , 1-1.		0
156	Clustering and Large Scale Structure Formation. , 1999, , 1-4.		0
157	Appendx A: Clustering Program Source Code (Fortran Version). , 1999, , 1-16.		0
158	Weighing the Universe, and Dark Matter. , 1999, , 1-7.		0
159	The Expansion of The Universe â€" its Geometry and Topology. , 1999, , 1-17.		0
160	Big Bang Nucleosynthesis (BBN). , 1999, , 1-6.		0
161	Nuclear matter as a liquid phase of spontaneously broken semiclassical <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:mi>SU</mml:mi><mml:msub><mml:mrow><mml:mo>(</mml:mo> chiral perturbation theory: Static chiral nucleon liquids. Physical Review C, 2022, 105, .	1.0	0