Massimo Giovannini

List of Publications by Year
in descending order

149 papers	3,834 citations	147801 31 h-index	155660 55 g-index
150 all docs	150 docs citations	150 times ranked	1135 citing authors

#	Article	IF	Citations
1	THE MAGNETIZED UNIVERSE. International Journal of Modern Physics D, 2004, 13, 391-502.	2.1	336
2	Primordial hypermagnetic fields and the triangle anomaly. Physical Review D, 1998, 57, 2186-2206.	4.7	284
3	Production and detection of relic gravitons in quintessential inflationary models. Physical Review D, 1999, 60, .	4.7	185
4	Cosmology of codimension-two braneworlds. Journal of High Energy Physics, 2003, 2003, 048-048.	4.7	127
5	Gravitational wave constraints on post-inflationary phases stiffer than radiation. Physical Review D, 1998, 58, .	4.7	118
6	Spikes in the relic graviton background from quintessential inflation. Classical and Quantum Gravity, 1999, 16, 2905-2913.	4.0	93
7	Gauge-invariant fluctuations of scalar branes. Physical Review D, 2001, 64, .	4.7	83
8	Primordial hypermagnetic knots. Physical Review D, 2000, 61, .	4.7	67
9	Variation of the gauge couplings during inflation. Physical Review D, 2001, 64, .	4.7	67
10	Cosmic microwave background polarization, Faraday rotation, and stochastic gravitational-wave backgrounds. Physical Review D, 1997, 56, 3198-3206.	4.7	65
11	Magnetized CMB observables: A dedicated numerical approach. Physical Review D, 2008, 77, .	4.7	64
12	The thermal history of the plasma and high-frequency gravitons. Classical and Quantum Gravity, 2009, 26, 045004.	4.0	63
13	Magnetized CMB anisotropies. Classical and Quantum Gravity, 2006, 23, R1-R44.	4.0	60
14	Faraday rotation, stochastic magnetic fields, and CMB maps. Physical Review D, 2008, 78, .	4.7	60
15	Hypermagnetic knots, Chern-Simons waves, and the baryon asymmetry. Physical Review D, 2000, 61, .	4.7	59
16	Tight coupling expansion and fully inhomogeneous magnetic fields. Physical Review D, 2006, 74, .	4.7	57
17	Magnetogenesis and the dynamics of internal dimensions. Physical Review D, 2000, 62, .	4.7	54
18	THEORETICAL TOOLS FOR CMB PHYSICS. International Journal of Modern Physics D, 2005, 14, 363-510.	2.1	52

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19	Magnetized initial conditions for CMB anisotropies. Physical Review D, 2004, 70, .	4.7	51
20	Localization of metric fluctuations on scalar branes. Physical Review D, 2002, 65, .	4.7	50
21	Low-scale quintessential inflation. Physical Review D, 2003, 67, .	4.7	50
22	Entropy perturbations and large-scale magnetic fields. Classical and Quantum Gravity, 2006, 23, 4991-5025.	4.0	49
23	Magnetogenesis, spectator fields and CMB signatures. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2008, 659, 661-668.	4.1	47
24	Thick branes and Gauss-Bonnet self-interactions. Physical Review D, 2001, 64, .	4.7	46
25	Stochastic backgrounds of relic gravitons, TÎ›CDM paradigm and the stiff ages. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2008, 668, 44-50.	4.1	44
26	Magnetized birefringence and CMB polarization. Physical Review D, 2005, 71, .	4.7	41
27	Stochastic backgrounds of relic gravitons: a theoretical appraisal. PMC Physics A, 2010, 4, .	9.1	40
28	Estimating relic magnetic fields from CMB temperature correlations. Physical Review D, 2009, 79, .	4.7	36
29	Scalar normal modes of higher-dimensional gravitating kinks. Classical and Quantum Gravity, 2003, 20, 1063-1076.	4.0	33
30	Anomalous magnetohydrodynamics. Physical Review D, 2013, 88, .	4.7	33
31	Gauge field localization on Abelian vortices in six dimensions. Physical Review D, 2002, 66, .	4.7	31
32	Transfer matrices for magnetized CMB anisotropies. Physical Review D, 2006, 73, .	4.7	31
33	Primordial backgrounds of relic gravitons. Progress in Particle and Nuclear Physics, 2020, 112, 103774.	14.4	30
34	Big bang nucleosynthesis, matter-antimatter regions, extra relativistic species, and relic gravitational waves. Physical Review D, 2002, 66, .	4.7	29
35	Parameter dependence of magnetized CMB observables. Physical Review D, 2009, 79, .	4.7	29
36	Electric-magnetic duality and the conditions of inflationary magnetogenesis. Journal of Cosmology and Astroparticle Physics, 2010, 2010, 003-003.	5.4	29

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37	Scalar and tensor inhomogeneities from dimensional decoupling. Physical Review D, 1997, 55, 595-608.	4.7	28
38	Semi-analytical approach to magnetized temperature autocorrelations. PMC Physics A, 2007, 1, .	9.1	28
39	Zero modes of six-dimensional Abelian vortices. Classical and Quantum Gravity, 2002, 19, 3357-3385.	4.0	26
40	Assigning quantum-mechanical initial conditions to cosmological perturbations. Classical and Quantum Gravity, 2003, 20, 5455-5473.	4.0	24
41	Static dilaton solutions and singularities in six dimensional warped compactification with higher derivatives. Physical Review D, 2001, 63, .	4.7	23
42	Generalized CMB initial conditions with pre-equality magnetic fields. Physical Review D, 2008, 77, .	4.7	23
43	Hanbury Brownâ€“Twiss interferometry and second-order correlations of inflaton quanta. Physical Review D, 2011, 83, .	4.7	23
44	Fluctuations of inflationary magnetogenesis. Physical Review D, 2013, 87, .	4.7	23
45	Dynamical backreaction of relic gravitons. Physical Review D, 2006, 73, .	4.7	22
46	Gravitating multidefects from higher dimensions. Physical Review D, 2007, 75, .	4.7	22
47	Large-scale magnetic fields, curvature fluctuations, and the thermal history of the Universe. Physical Review D, 2007, 76, .	4.7	21
48	Magnetized completion of the<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mi>Î›</mml:mi><mml:mi>CDM</mml:mi></mml:math>paradigm. Physical Review D, 2008, 77, .	4.7	21
49	<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mi>V</mml:mi></mml:math>-mode polarization of the cosmic microwave background. Physical Review D, 2009, 80, .	4.7	21
50	Secondary graviton spectra and waterfall-like fields. Physical Review D, 2010, 82, .	4.7	21
51	The refractive index of relic gravitons. Classical and Quantum Gravity, 2016, 33, 125002.	4.0	21
52	Relic gravitons, dominant energy condition, and bulk viscous stresses. Physical Review D, 1999, 59, .	4.7	20
53	Inflationary susceptibilities, duality, and large-scale magnetic field generation. Physical Review D, 2013, 88, .	4.7	20
54	Post-inflationary phases stiffer than radiation and Palatini formulation. Classical and Quantum Gravity, 2019, 36, 235017.	4.0	20

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55	Probing large-scale magnetism with the cosmic microwave background. Classical and Quantum Gravity, 2018, 35, 084003.	4.0	19
56	Heating up the cold bounce. Classical and Quantum Gravity, 2004, 21, 4209-4229.	4.0	18
57	Spectator electric fields, de Sitter spacetime, and the Schwinger effect. Physical Review D, 2018, 97, .	4.7	18
58	Blue spectra of Kalb-Ramond axions and fully anisotropic string cosmologies. Physical Review D, 1999, 59, .	4.7	17
59	Vector fluctuations from multidimensional curvature bounces. Physical Review D, 2004, 70, .	4.7	17
60	Interacting viscous mixtures. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2005, 622, 349-355.	4.1	17
61	Gradient expansion(s) and dark energy. Journal of Cosmology and Astroparticle Physics, 2005, 2005, 009-009.	5.4	17
62	Cosmological perturbations for imperfect fluids. Classical and Quantum Gravity, 2005, 22, 5243-5269.	4.0	17
63	Regular cosmological examples of tree-level dilaton-driven models. Physical Review D, 1998, 57, 7223-7234.	4.7	16
64	Kink-antikink, trapping bags and five-dimensional Gauss-Bonnet gravity. Physical Review D, 2006, 74, .	4.7	16
65	Cosmic polarimetry in magnetoactive plasmas. Physical Review D, 2009, 79, .	4.7	15
66	Backgrounds of squeezed relic photons and their spatial correlations. Physical Review D, 2000, 61, .	4.7	14
67	Fully anisotropic string cosmologies, Maxwell fields, and primordial shear. Physical Review D, 1999, 59, .	4.7	13
68	Homogeneous and isotropic big rips?. Physical Review D, 2005, 72, .	4.7	13
69	Inhomogeneous dusty universes and their deceleration. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2006, 634, 1-4.	4.1	13
70	Dark energy, integrated Sachsâ€“Wolfe effect and large-scale magnetic fields. Classical and Quantum Gravity, 2010, 27, 105011.	4.0	13
71	Vector field localization and negative tension branes. Physical Review D, 2002, 65, .	4.7	12
72	Non-topological gravitating defects in five-dimensional anti-de Sitter space. Classical and Quantum Gravity, 2006, 23, L73-L80.	4.0	12

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73	Ohmic currents and predecoupling magnetism. Physical Review D, 2009, 80, .	4.7	12
74	Birefringence, CMB polarization, and magnetized B-mode. Physical Review D, 2009, 79, .	4.7	12
75	Weyl invariance and the conductivity of the protoinflationary plasma. Physical Review D, 2012, 85, .	4.7	12
76	Post-inflationary thermal histories and the refractive index of relic gravitons. Physical Review D, 2018, 98, .	4.7	12
77	The propagating speed of relic gravitational waves and their refractive index during inflation. European Physical Journal C, 2018, 78, 1.	3.9	12
78	Blue and violet graviton spectra from a dynamical refractive index. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2019, 789, 502-507.	4.1	12
79	Magnetic knots as the origin of spikes in the gravitational wave backgrounds. Physical Review D, 1998, 58, .	4.7	11
80	Singularity free dilaton-driven cosmologies and pre-little-bangs. Physical Review D, 1999, 59, .	4.7	11
81	Circular dichroism, magnetic knots, and the spectropolarimetry of the cosmic microwave background. Physical Review D, 2010, 81, .	4.7	11
82	Symmetries of inflationary magnetogenesis and the plasma initial conditions. Physical Review D, 2012, 86, .	4.7	11
83	Cosmic backgrounds of relic gravitons and their absolute normalization. Classical and Quantum Gravity, 2014, 31, 225002.	4.0	11
84	Inflationary magnetogenesis, derivative couplings, and relativistic Van der Waals interactions. Physical Review D, 2015, 92, .	4.7	11
85	Hypermagnetic gyrotropy, inflation, and the baryon asymmetry of the Universe. Physical Review D, 2015, 92, .	4.7	11
86	Baryogenesis, magnetogenesis and the strength of anomalous interactions. European Physical Journal C, 2021, 81, 1.	3.9	11
87	Tracking curvaton(s)?. Physical Review D, 2004, 69, .	4.7	10
88	No-hair conjectures, primordial shear, and protoinflationary initial conditions. Physical Review D, 2014, 89, .	4.7	10
89	Anomalous magnetohydrodynamics in the extreme relativistic domain. Physical Review D, 2016, 94, .	4.7	10
90	Homogeneous magnetic fields in fully anisotropic string cosmological backgrounds. Physical Review D, 2000, 62, .	4.7	9

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91	Gradient expansion, curvature perturbations, and magnetized plasmas. Physical Review D, 2011, 83, .	4.7	9
92	Compressible hydromagnetic nonlinearities in the predecoupling plasma. Physical Review D, 2012, 85, .	4.7	9
93	Large-scale gauge spectra and pseudoscalar couplings. Physical Review D, 2021, 104, .	4.7	9
94	Resonant and nonresonant amplification of massless gauge fields during an oscillating dilaton phase. Physical Review D, 1997, 56, 631-636.	4.7	8
95	Hedgehogs in higher dimensional gravity with curvature self-interactions. Physical Review D, 2001, 63, .	4.7	8
96	WHY CMB PHYSICS?. International Journal of Modern Physics A, 2007, 22, 2697-2894.	1.5	8
97	Time-dependent gravitating solitons in five-dimensional warped space-times. Physical Review D, 2007, 76, .	4.7	8
98	Last scattering, relic gravitons, and the circular polarization of the CMB. Physical Review D, 2010, 81, .	4.7	8
99	Reynolds numbers in the early Universe. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2012, 711, 327-331.	4.1	8
100	Bootstrapping from inflationary magnetogenesis to CMB initial conditions. Classical and Quantum Gravity, 2013, 30, 205017.	4.0	8
101	The first observations of wide-band interferometers and the spectra of relic gravitons. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2016, 759, 528-532.	4.1	8
102	Spectrum of anomalous magnetohydrodynamics. Physical Review D, 2016, 93, .	4.7	8
103	Stringy bounces and gradient instabilities. Physical Review D, 2017, 95, .	4.7	8
104	Effective energy density of relic gravitons. Physical Review D, 2019, 100, .	4.7	8
105	Spurious gauge-invariance of higher-order contributions to the spectral energy density of the relic gravitons. International Journal of Modern Physics A, 2020, 35, 2050165.	1.5	8
106	Fluid phonons, protoinflationary dynamics, and large-scale gravitational fluctuations. Physical Review D, 2013, 88, .	4.7	7
107	Quantum coherence of cosmological perturbations. Modern Physics Letters A, 2017, 32, 1750191.	1.2	7
108	Inflationary magnetogenesis in the perturbative regime. Classical and Quantum Gravity, 2021, 38, 135018.	4.0	7

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109	Effective field theories and inflationary magnetogenesis. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2021, 819, 136444.	4.1	7
110	Palatini approach and large-scale magnetogenesis. Journal of Cosmology and Astroparticle Physics, 2021, 2021, 058.	5.4	7
111	Rotational inhomogeneities from pre-big bang?. Classical and Quantum Gravity, 2005, 22, 363-378.	4.0	6
112	Violation of consistency relations and the protoinflationary transition. Physical Review D, 2014, 89, .	4.7	6
113	Scaling laws and sum rules for the<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:mi>B</mml:mi></mml:mrow></mml:math>-mode polarization. Physical Review D, 2014, 89, .	4.7	6
114	Scalar modes of the relic gravitons. Physical Review D, 2015, 91, .	4.7	6
115	Glauber theory and the quantum coherence of curvature inhomogeneities. Classical and Quantum Gravity, 2017, 34, 035019.	4.0	6
116	Averaged energy conditions and bouncing universes. Physical Review D, 2017, 96, .	4.7	6
117	Polarized backgrounds of relic gravitons. Physical Review D, 2019, 99, .	4.7	6
118	Viscous cosmologies and the second law of thermodynamics. Physical Review D, 2000, 61, .	4.7	5
119	A circular polarimeter for the Cosmic Microwave Background. Journal of Cosmology and Astroparticle Physics, 2010, 2010, 028-028.	5.4	5
120	Growth rate of matter perturbations as a probe of large-scale magnetism. Physical Review D, 2011, 84, .	4.7	5
121	Fluid phonons and inflaton quanta at the protoinflationary transition. Classical and Quantum Gravity, 2012, 29, 155003.	4.0	5
122	Uniform gradient expansions. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2015, 746, 159-163.	4.1	5
123	Statistical anisotropy from inflationary magnetogenesis. Physical Review D, 2016, 93, .	4.7	5
124	Curvature perturbations from dimensional decoupling. Classical and Quantum Gravity, 2005, 22, 2201-2219.	4.0	4
125	Multiplicity distributions in gravitational and strong interactions. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2010, 691, 274-278.	4.1	4
126	Primordial vorticity and gradient expansion. Classical and Quantum Gravity, 2012, 29, 035001.	4.0	4

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127	TensorBmode and stochastic Faraday mixing. Physical Review D, 2014, 89, .	4.7	4
128	Faraday scaling and the BICEP2 observations. Physical Review D, 2014, 90, .	4.7	4
129	Spectator Higgs field, large-scale gauge fields, and the nonminimal coupling to gravity. Physical Review D, 2017, 95, .	4.7	4
130	Quantum coherence of relic gravitons and Hanbury Brown-Twiss interferometry. Physical Review D, 2019, 99, .	4.7	4
131	The refractive index of the relic gravitons and the nHz band. European Physical Journal C, 2022, 82, 1.	3.9	4
132	Relic gravitons at intermediate frequencies and the expansion history of the Universe. Physical Review D, 2022, 105, .	4.7	4
133	Magnetic field contribution to the last electronâ€“photon scattering. Classical and Quantum Gravity, 2010, 27, 225016.	4.0	3
134	Magnetization of fluid phonons and large-scale curvature perturbations. Physical Review D, 2014, 90, .	4.7	3
135	Non-linear curvature inhomogeneities and backreaction for relativistic viscous fluids. Classical and Quantum Gravity, 2015, 32, 155004.	4.0	3
136	Quasiadiabatic modes from viscous inhomogeneities. Physical Review D, 2016, 93, .	4.7	3
137	Tensor to scalar ratio from single field magnetogenesis. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2017, 771, 482-486.	4.1	3
138	Hypermagnetic knots and gravitational radiation at intermediate frequencies. Classical and Quantum Gravity, 2017, 34, 135010.	4.0	3
139	Stimulated emission of relic gravitons and their super-Poissonian statistics. Modern Physics Letters A, 2019, 34, 1950185.	1.2	3
140	Spectator stresses and CMB observables. Physical Review D, 2010, 81, .	4.7	2
141	Secondary graviton spectra, second-order correlations and Boseâ€“Einstein enhancement. Classical and Quantum Gravity, 2013, 30, 015009.	4.0	2
142	Viscous modes, isocurvature perturbations, and CMB initial conditions. Physical Review D, 2015, 91, .	4.7	2
143	Effective horizons, junction conditions and large-scale magnetism. European Physical Journal C, 2017, 77, 1.	3.9	2
144	Relic gravitons from stiff curvature perturbations. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2020, 810, 135801.	4.1	2

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145	Dynamical suppression of nonadiabatic modes. Physical Review D, 2008, 78, .	4.7	1
146	Squeezed relic photons beyond the horizon. Physical Review D, 2017, 96, .	4.7	1
147	Effective anisotropic stresses of the relic gravitons. International Journal of Modern Physics D, 2020, 29, 2050112.	2.1	1
148	Planckian hypersurfaces, inflation and bounces. European Physical Journal C, 2020, 80, 1.	3.9	0
149	Viscous absorption of ultra-high-frequency gravitons. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2022, 829, 137071.	4.1	0