Mairi Sakellariadou

List of Publications by Year
in descending order

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143 papers	7,304 citations	71102 41 h-index	56724 83 g-index
145 all docs	145 docs citations	145 times ranked	4943 citing authors

#	Article	IF	Citations
1	Prospects for observing and localizing gravitational-wave transients with Advanced LIGO, Advanced Virgo and KAGRA. Living Reviews in Relativity, 2018, 21, 3.	26.7	808
2	Science case for the Einstein telescope. Journal of Cosmology and Astroparticle Physics, 2020, 2020, 050-050.	5.4	602
3	Black holes, gravitational waves and fundamental physics: a roadmap. Classical and Quantum Gravity, 2019, 36, 143001.	4.0	451
4	How generic is cosmic string formation in supersymmetric grand unified theories. Physical Review D, 2003, 68, .	4.7	319
5	Science with the space-based interferometer LISA. IV: probing inflation with gravitational waves. Journal of Cosmology and Astroparticle Physics, 2016, 2016, 026-026.	5.4	256
6	Cosmological evolution of cosmic string loops. Journal of Cosmology and Astroparticle Physics, 2007, 2007, 023-023.	5.4	234
7	Prospects for fundamental physics with LISA. General Relativity and Gravitation, 2020, 52, 1.	2.0	198
8	Fundamental physics with the Square Kilometre Array. Publications of the Astronomical Society of Australia, 2020, 37, .	3.4	179
9	Quantum gravity phenomenology at the dawn of the multi-messenger eraâ€”A review. Progress in Particle and Nuclear Physics, 2022, 125, 103948.	14.4	175
10	Probing the gravitational wave background from cosmic strings with LISA. Journal of Cosmology and Astroparticle Physics, 2020, 2020, 034-034.	5.4	164
11	A Gravitational-wave Measurement of the Hubble Constant Following the Second Observing Run of Advanced LIGO and Virgo. Astrophysical Journal, 2021, 909, 218.	4.5	144
12	Testing modified gravity at cosmological distances with LISA standard sirens. Journal of Cosmology and Astroparticle Physics, 2019, 2019, 024-024.	5.4	129
13	LIGO detector characterization in the second and third observing runs. Classical and Quantum Gravity, 2021, 38, 135014.	4.0	128
14	Cosmic string loop distribution on all length scales and at any redshift. Journal of Cosmology and Astroparticle Physics, 2010, 2010, 003-003.	5.4	104
15	The physics programme of the MoEDAL experiment at the LHC. International Journal of Modern Physics A, 2014, 29, 1430050.	1.5	93
16	Scaling and small-scale structure in cosmic string networks. Physical Review D, 1997, 56, 637-646.	4.7	91
17	A note on the evolution of cosmic string/superstring networks. Journal of Cosmology and Astroparticle Physics, 2005, 2005, 003-003.	5.4	87
18	Nonvacuum initial states for cosmological perturbations of quantum-mechanical origin. Physical Review D, 2000, 61, .	4.7	86

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19	New horizons for fundamental physics with LISA. Living Reviews in Relativity, 2022, 25, .	26.7	82
20	Gravitational waves emitted from infinite strings. Physical Review D, 1990, 42, 354-360.	4.7	80
21	Evidence against or for topological defects in the BOOMERanG data?. Physical Review D, 2001, 65, .	4.7	77
22	Anisotropies in the stochastic gravitational-wave background: Formalism and the cosmic string case. Physical Review D, 2018, 98, .	4.7	68
23	Constraints on supersymmetric grand unified theories from cosmology. Journal of Cosmology and Astroparticle Physics, 2005, 2005, 004-004.	5.4	65
24	D-Term Inflation, Cosmic Strings, and Consistency with Cosmic Microwave Background Measurements. Physical Review Letters, 2005, 94, 011303.	7.8	65
25	Polarization-Based Tests of Gravity with the Stochastic Gravitational-Wave Background. Physical Review X, 2017, 7, .	8.9	65
26	Numerical experiments on string cosmology. Nuclear Physics B, 1996, 468, 319-335.	2.5	64
27	Anisotropies in the astrophysical gravitational-wave background: Predictions for the detection of compact binaries by LIGO and Virgo. Physical Review D, 2018, 98, .	4.7	63
28	Neutron star mergers as a probe of modifications of general relativity with finite-range scalar forces. Physical Review D, 2018, 97, .	4.7	61
29	Doppler Peaks in the Angular Power Spectrum of the Cosmic Microwave Background: A Fingerprint of Topological Defects. Physical Review Letters, 1996, 76, 579-582.	7.8	58
30	Inflation in inhomogeneous cosmology. Physical Review D, 1992, 45, 2802-2805.	4.7	56
31	Numerical experiments withpF- andqD-strings: the formation of (p,q)â€, bound states. Journal of Cosmology and Astroparticle Physics, 2007, 2007, 021-021.	5.4	55
32	Why do we live in <mml:math altimg="si1.gif" overflow="scroll" xmlns:xocs="http://www.elsevier.com/xml/xocs/dtd" xmlns:xs="http://www.w3.org/2001/XMLSchema" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xmlns="http://www.elsevier.com/xml/ja/dtd" xmlns:ja="http://www.elsevier.com/xml/ja/dtd" xmlns:mml="http://www.w3.org/1998/Math/MathML" xmlns:tb="http://www.elsevier.com/xml/common/table/dtd" xmlns:sb="http://www.elsevier.com/xml/common/struct-bib/dtd" xmlns:ce="http://www.elsevier.com/x	4.1	51
33	Prospects for axion searches with Advanced LIGO through binary mergers. Physical Review D, 2019, 99, .	4.7	51
34	Cosmic Strings and Cosmic Superstrings. Nuclear Physics, Section B, Proceedings Supplements, 2009, 192-193, 68-90.	0.4	50
35	Cosmological implications of interacting group field theory models: Cyclic universe and accelerated expansion. Physical Review D, 2016, 94, .	4.7	50
36	Projection effects on the observed angular spectrum of the astrophysical stochastic gravitational wave background. Physical Review D, 2020, 101, .	4.7	50

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37	Constraining models of extended gravity using Gravity Probe B and LARES experiments. Physical Review D, 2015, 91, .	4.7	49
38	Constraining the Noncommutative Spectral Action via Astrophysical Observations. Physical Review Letters, 2010, 105, 101602.	7.8	48
39	Quantum gravity and gravitational-wave astronomy. Journal of Cosmology and Astroparticle Physics, 2019, 2019, 012-012.	5.4	44
40	Anisotropies in the Astrophysical Gravitational-Wave Background: The Impact of Black Hole Distributions. Physical Review Letters, 2019, 122, 111101.	7.8	43
41	Single field inflation and non-Gaussianity. Physical Review D, 2002, 66, .	4.7	42
42	Search for magnetic monopoles with the MoEDAL prototype trapping detector in 8 TeV proton-proton collisions at the LHC. Journal of High Energy Physics, 2016, 2016, 1.	4.7	41
43	Implications for First-Order Cosmological Phase Transitions from the Third LIGO-Virgo Observing Run. Physical Review Letters, 2021, 126, 151301.	7.8	40
44	Cosmic-string evolution in flat spacetime. Physical Review D, 1990, 42, 349-353.	4.7	39
45	Inflation mechanism in asymptotic noncommutative geometry. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2009, 680, 263-266.	4.1	39
46	Magnetic Monopole Search with the Full MoEDAL Trapping Detector in 13ÂTeV <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mi>p</mml:mi><mml:mi>p</mml:mi></mml:math> Collisions Interpreted in Photon-Fusion and Drell-Yan Production. Physical Review Letters, 2019, 123, 021802.	7.8	38
47	Lattice-refining loop quantum cosmology and inflation. Physical Review D, 2007, 76, .	4.7	37
48	Inflation in models with conformally coupled scalar fields: An application to the noncommutative spectral action. Physical Review D, 2010, 82, .	4.7	36
49	Cosmology and the noncommutative approach to the standard model. Physical Review D, 2010, 81, .	4.7	36
50	Shot noise in the astrophysical gravitational-wave background. Physical Review D, 2019, 100, .	4.7	36
51	Estimating the angular power spectrum of the gravitational-wave background in the presence of shot noise. Physical Review D, 2019, 100, .	4.7	34
52	Cosmic Strings. , 2007, , 247-288.		33
53	Lattice refining loop quantum cosmology and the matter Hamiltonian. Physical Review D, 2007, 76, .	4.7	33
54	Simultaneous estimation of astrophysical and cosmological stochastic gravitational-wave backgrounds with terrestrial detectors. Physical Review D, 2021, 103, .	4.7	33

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55	Eliminating the LIGO bounds on primordial black hole dark matter. Journal of Cosmology and Astroparticle Physics, 2021, 2021, 078.	5.4	32
56	Relativistic modified Newtonian dynamics from string theory?. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2007, 652, 97-102.	4.1	31
57	Necessity of Dark Matter in Modified Newtonian Dynamics within Galactic Scales. Physical Review Letters, 2008, 100, 031302.	7.8	31
58	Cosmic superstrings. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2008, 366, 2881-2894.	3.4	31
59	Constraints on noncommutative spectral action from Gravity Probe B and torsion balance experiments. Journal of Cosmology and Astroparticle Physics, 2013, 2013, 020-020.	5.4	31
60	Group Field Theory Condensate Cosmology: An Appetizer. Universe, 2019, 5, 147.	2.5	31
61	Semiclassical effects and the onset of inflation. Physical Review D, 1993, 47, 3184-3193.	4.7	30
62	Microwave background anisotropies from scaling seed perturbations. Physical Review D, 1997, 56, 4480-4493.	4.7	30
63	Gravitational waves in the spectral action of noncommutative geometry. Physical Review D, 2010, 82, .	4.7	29
64	D-term inflation in non-minimal supergravity. Journal of Cosmology and Astroparticle Physics, 2006, 2006, 001-001.	5.4	28
65	Onset of inflation in loop quantum cosmology. Physical Review D, 2007, 76, .	4.7	28
66	Can the relativistic field theory version of modified Newtonian dynamics avoid dark matter on galactic scales?. Physical Review D, 2009, 79, .	4.7	28
67	Detecting a stochastic gravitational-wave background in the presence of correlated magnetic noise. Physical Review D, 2020, 102, .	4.7	28
68	Numerical experiments with cosmic strings in flat spacetime. Physical Review D, 1988, 37, 885-887.	4.7	27
69	Incompatibility of rotation curves with gravitational lensing for TeVeS theory. Physical Review D, 2009, 80, .	4.7	27
70	Noncommutative spectral geometry, algebra doubling, and the seeds of quantization. Physical Review D, 2011, 84, .	4.7	27
71	Gravitational-wave luminosity distance in quantum gravity. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2019, 798, 135000.	4.1	27
72	Dynamics of F/D networks: the role of bound states. Journal of Cosmology and Astroparticle Physics, 2008, 2008, 038.	5.4	26

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73	Impact of nonlinear effective interactions on group field theory quantum gravity condensates. Physical Review D, 2016, 94, .	4.7	26
74	Ability of LISA to detect a gravitational-wave background of cosmological origin: The cosmic string case. Physical Review D, 2022, 105, .	4.7	26
75	Accelerated expansion of the Universe without an inflaton and resolution of the initial singularity from Group Field Theory condensates. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2017, 764, 49-53.	4.1	25
76	Local conformal symmetry in non-Riemannian geometry and the origin of physical scales. European Physical Journal C, 2017, 77, 605.	3.9	24
77	Cosmic string loop production functions. Journal of Cosmology and Astroparticle Physics, 2019, 2019, 015-015.	5.4	24
78	CLASS_GWB: robust modeling of the astrophysical gravitational wave background anisotropies. Journal of Cosmology and Astroparticle Physics, 2022, 2022, 030.	5.4	24
79	Relational evolution of effectively interacting group field theory quantum gravity condensates. Physical Review D, 2017, 95, .	4.7	22
80	Search for magnetic monopoles produced via the Schwinger mechanism. Nature, 2022, 602, 63-67.	27.8	22
81	Does gravityâ€™s rainbow induce inflation without an inflaton?. Physical Review D, 2014, 90, .	4.7	21
82	First Constraints on Nuclear Coupling of Axionlike Particles from the Binary Neutron Star Gravitational Wave Event GW170817. Physical Review Letters, 2021, 127, 161101.	7.8	21
83	Search for a Scalar Induced Stochastic Gravitational Wave Background in the Third LIGO-Virgo Observing Run. Physical Review Letters, 2022, 128, 051301.	7.8	21
84	Cosmic Microwave Background Anisotropies from Scaling Seeds: Fit to Observational Data. Physical Review Letters, 1997, 79, 5198-5201.	7.8	20
85	First joint observation by the underground gravitational-wave detector KAGRA with GEO 600. Progress of Theoretical and Experimental Physics, 2022, 2022, .	6.6	20
86	Confronting MOND and TeVeS with strong gravitational lensing over galactic scales: An extended survey. Physical Review D, 2012, 86, .	4.7	19
87	Dynamics of anisotropies close to a cosmological bounce in quantum gravity. Classical and Quantum Gravity, 2018, 35, 015014.	4.0	18
88	Numerical techniques for solving the quantum constraint equation of generic lattice-refined models in loop quantum cosmology. Physical Review D, 2008, 78, .	4.7	17
89	Shortcomings of Shapiro delay-based tests of the equivalence principle on cosmological scales. Physical Review D, 2019, 100, .	4.7	17
90	NONCOMMUTATIVE GEOMETRY SPECTRAL ACTION AS A FRAMEWORK FOR UNIFICATION: INTRODUCTION AND PHENOMENOLOGICAL/COSMOLOGICAL CONSEQUENCES. International Journal of Modern Physics D, 2011, 20, 785-804.	2.1	15

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91	Spectral action with zeta function regularization. Physical Review D, 2015, 91, .	4.7	15
92	The D-material universe. Journal of Cosmology and Astroparticle Physics, 2016, 2016, 060-060.	5.4	15
93	Late time cosmic acceleration in modified SÃ¡ezâ€“Ballester theory. Physics of the Dark Universe, 2020, 27, 100446.	4.9	15
94	Production of Topological Defects at the End of Inflation. , 2008, , 359-392.		15
95	Unique factor ordering in the continuum limit of loop quantum cosmology. Physical Review D, 2008, 78, .	4.7	14
96	Searching for parity violation with the LIGO-Virgo-KAGRA network. Physical Review D, 2021, 104, .	4.7	14
97	Stringy models of modified gravity: space-time defects and structure formation. Journal of Cosmology and Astroparticle Physics, 2013, 2013, 015-015.	5.4	13
98	Spectral regularisation: induced gravity and the onset of inflation. Journal of Cosmology and Astroparticle Physics, 2014, 2014, 035-035.	5.4	13
99	Cusps on cosmic superstrings with junctions. Journal of Cosmology and Astroparticle Physics, 2008, 2008, 022.	5.4	12
100	Unstable anisotropic loop quantum cosmology. Physical Review D, 2009, 80, .	4.7	10
101	Zipping and unzipping in string networks: Dynamics of Y-junctions. Physical Review D, 2015, 91, .	4.7	10
102	Impact of Schumann resonances on the Einstein Telescope and projections for the magnetic coupling function. Physical Review D, 2021, 104, .	4.7	10
103	The revival of cosmic strings. Annalen Der Physik, 2006, 15, 264-276.	2.4	9
104	Gravitational wave bursts from cosmic string cusps and pseudocusps. Physical Review D, 2017, 96, .	4.7	8
105	Noncommutative gravity with self-dual variables. Classical and Quantum Gravity, 2018, 35, 215009.	4.0	8
106	SCATTERING OF COSMIC STRINGS BY BLACK HOLES: LOOP FORMATION. International Journal of Modern Physics D, 2007, 16, 1311-1325.	2.1	7
107	Spaceâ€“time dimensionality from brane collisions. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2009, 674, 210-212.	4.1	7
108	Cosmic strings from pseudo-anomalous Fayet-Iliopoulos U(1)FI in D3/D7 brane inflation. Journal of High Energy Physics, 2010, 2010, 1.	4.7	7

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109	Theoretical constraints on brane inflation and cosmic superstring radiation. Journal of High Energy Physics, 2011, 2011, 1.	4.7	7
110	Cusps and pseudocusps in strings with Y-junctions. Physical Review D, 2014, 90, .	4.7	7
111	Is F-term hybrid inflation natural within minimal supersymmetric SO(10)?. European Physical Journal C, 2014, 74, 1.	3.9	7
112	Constraints on extended gravity models through gravitational wave emission. Journal of Cosmology and Astroparticle Physics, 2021, 2021, 014.	5.4	7
113	Fourth order deformed general relativity. Physical Review D, 2014, 90, .	4.7	6
114	Effective cosmological constant induced by stochastic fluctuations of Newton's constant. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2016, 760, 498-501.	4.1	6
115	Nonlinear gravitational-wave memory from cusps and kinks on cosmic strings. Classical and Quantum Gravity, 2021, 38, 165004.	4.0	6
116	On the possibility of dark energy from corrections to the Wheelerâ€“DeWitt equation. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2008, 661, 37-41.	4.1	5
117	Doubling of the algebra and neutrino mixing within noncommutative spectral geometry. European Physical Journal C, 2014, 74, 1.	3.9	5
118	Can we detect quantum gravity with compact binary inspirals?. Physical Review D, 2018, 98, .	4.7	5
119	Noncommutative spectral geometry, dissipation and the origin of quantization. Journal of Physics: Conference Series, 2012, 361, 012025.	0.4	4
120	Linear stability of noncommutative spectral geometry. Physical Review D, 2016, 93, .	4.7	4
121	Noncommutative geometrical origin of the energy-momentum dispersion relation. Physical Review D, 2017, 95, .	4.7	4
122	Graviton propagation within the context of the D-material universe. European Physical Journal C, 2017, 77, 445.	3.9	4
123	Tachyonic decay of unstable Dirichlet branes. Physical Review D, 2008, 78, .	4.7	3
124	Phenomenology of loop quantum cosmology. Journal of Physics: Conference Series, 2010, 222, 012027.	0.4	3
125	Cosmological consequences of the noncommutative spectral geometry as an approach to unification. Journal of Physics: Conference Series, 2011, 283, 012031.	0.4	3
126	Noncommutative spectral geometry: a short review. Journal of Physics: Conference Series, 2013, 442, 012015.	0.4	3

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127	How well do we understand the thermal history of the Universe? Implications of the recent BICEP2 data. Physical Review D, 2014, 90, .	4.7	3
128	Deformed general relativity and scalarâ€“tensor models. Classical and Quantum Gravity, 2018, 35, 225005.	4.0	3
129	Fermionic spectral action and the origin of nonzero neutrino masses. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2019, 795, 351-355.	4.1	3
130	Constraints on quasidilaton massive gravity. Physical Review D, 2019, 100, .	4.7	3
131	Upper limits on the temperature of inspiraling astrophysical black holes. European Physical Journal C, 2021, 81, 1.	3.9	3
132	Gravitational Waves: The Theoristâ€™s Swiss Knife. Universe, 2022, 8, 132.	2.5	3
133	Formation & evolution of cosmic superstrings: a short review. Fortschritte Der Physik, 2010, 58, 792-796.	4.4	2
134	Lattice refining LQC from an isotropic embedding of anisotropic cosmology. Classical and Quantum Gravity, 2010, 27, 145014.	4.0	2
135	Semiclassical solutions of generalized Wheeler-DeWitt cosmology. Physical Review D, 2016, 93, .	4.7	2
136	Quantum Gravity and Cosmology: an intimate interplay. Journal of Physics: Conference Series, 2017, 880, 012003.	0.4	2
137	The general scalarâ€“tensor Hamiltonian with deformed covariance. Classical and Quantum Gravity, 2019, 36, 125010.	4.0	2
138	Aspects of the Bosonic Spectral Action. Journal of Physics: Conference Series, 2015, 631, 012012.	0.4	1
139	General gravitational Lagrangian with deformed covariance. Physical Review D, 2020, 102, .	4.7	1
140	Noncommutative spectral geometry and the deformed Hopf algebra structure of quantum field theory. Journal of Physics: Conference Series, 2013, 442, 012016.	0.4	0
141	Highlights of non-commutative spectral geometry. Journal of Physics: Conference Series, 2014, 484, 012073.	0.4	0
142	Inflation and cosmic (super)strings: implications of their intimate relation revisited. Journal of Physics: Conference Series, 2014, 544, 012027.	0.4	0
143	Noncommutative spectral geometry, Bogoliubov transformations and neutrino oscillations. Journal of Physics: Conference Series, 2015, 626, 012014.	0.4	0