

Gianluca Calcagni

List of Publications by Year in descending order

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129
papers

4,610
citations

87888

38
h-index

114465

63
g-index

142
all docs

142
docs citations

142
times ranked

1929
citing authors

#	ARTICLE	IF	CITATIONS
1	Quantum Gravity and Gravitational-Wave Astronomy. , 2022, , 1177-1203.		0
2	New horizons for fundamental physics with LISA. Living Reviews in Relativity, 2022, 25, .	26.7	82
3	Multifractional theories: An updated review. Modern Physics Letters A, 2021, 36, 2140006.	1.2	18
4	Beyond Rescorlaâ€“Wagner: the Ups and Downs of Learning. Computational Brain & Behavior, 2021, 4, 355-379.	1.7	0
5	Classical and quantum gravity with fractional operators. Classical and Quantum Gravity, 2021, 38, 165005.	4.0	19
6	Quantum scalar field theories with fractional operators. Classical and Quantum Gravity, 2021, 38, 165006.	4.0	13
7	Quantum Gravity and Gravitational-Wave Astronomy. , 2021, , 1-27.		2
8	Tree-level scattering amplitudes in nonlocal field theories. Journal of High Energy Physics, 2021, 2021, 1.	4.7	9
9	Next Step in Gravity and Cosmology: Fundamental Theory or Data-Driven Models?. Frontiers in Astronomy and Space Sciences, 2020, 7, .	2.8	5
10	Prospects for fundamental physics with LISA. General Relativity and Gravitation, 2020, 52, 1.	2.0	198
11	Dark energy in multifractional spacetimes. Physical Review D, 2020, 102, .	4.7	15
12	Behavior Stability and Individual Differences in Pavlovian Extended Conditioning. Frontiers in Psychology, 2020, 11, 612.	2.1	3
13	Testing modified gravity at cosmological distances with LISA standard sirens. Journal of Cosmology and Astroparticle Physics, 2019, 2019, 024-024.	5.4	129
14	Non-perturbative spectrum of non-local gravity. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2019, 795, 391-397.	4.1	14
15	Gravitational-wave luminosity distance in quantum gravity. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2019, 798, 135000.	4.1	27
16	Quantum gravity and gravitational-wave astronomy. Journal of Cosmology and Astroparticle Physics, 2019, 2019, 012-012.	5.4	44
17	Nonlinear stability in nonlocal gravity. Physical Review D, 2019, 99, .	4.7	23
18	Multifractional spacetimes from the Standard Model to cosmology. International Journal of Geometric Methods in Modern Physics, 2019, 16, 1940004.	2.0	2

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19	The geometry of learning. <i>Journal of Mathematical Psychology</i> , 2018, 84, 74-88.	1.8	5
20	Taming the Beast: Diffusion Method in Nonlocal Gravity. <i>Universe</i> , 2018, 4, 95.	2.5	9
21	New Standard Model constraints on the scales and dimension of spacetime. <i>Journal of High Energy Physics</i> , 2018, 2018, 1.	4.7	5
22	Initial conditions and degrees of freedom of non-local gravity. <i>Journal of High Energy Physics</i> , 2018, 2018, 1.	4.7	30
23	Towards Multifractional Calculus. <i>Frontiers in Physics</i> , 2018, 6, .	2.1	20
24	Black-hole stability in non-local gravity. <i>Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics</i> , 2018, 783, 19-23.	4.1	12
25	Initial conditions and degrees of freedom of non-local gravity. , 2018, 2018, 1.		1
26	Classical and Quantum Cosmology. <i>Graduate Texts in Physics</i> , 2017, , .	0.2	52
27	Cosmology of Quantum Gravities. <i>Graduate Texts in Physics</i> , 2017, , 543-624.	0.2	0
28	Canonical Quantum Gravity. <i>Graduate Texts in Physics</i> , 2017, , 407-465.	0.2	0
29	Canonical Quantum Cosmology. <i>Graduate Texts in Physics</i> , 2017, , 467-542.	0.2	0
30	String Cosmology. <i>Graduate Texts in Physics</i> , 2017, , 701-821.	0.2	0
31	Cosmological Perturbations. <i>Graduate Texts in Physics</i> , 2017, , 63-90.	0.2	0
32	Cosmic Microwave Background. <i>Graduate Texts in Physics</i> , 2017, , 91-151.	0.2	0
33	String Theory. <i>Graduate Texts in Physics</i> , 2017, , 625-700.	0.2	0
34	Cosmological Constant Problem. <i>Graduate Texts in Physics</i> , 2017, , 301-388.	0.2	0
35	Black holes in multi-fractional and Lorentz-violating models. <i>European Physical Journal C</i> , 2017, 77, 335.	3.9	7
36	Lorentz violations in multifractal spacetimes. <i>European Physical Journal C</i> , 2017, 77, 1.	3.9	16

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37	Multiscale spacetimes from first principles. <i>Physical Review D</i> , 2017, 95, .	4.7	31
38	Entanglement entropy, scale-dependent dimensions and the origin of gravity. <i>International Journal of Modern Physics D</i> , 2017, 26, 1743030.	2.1	2
39	Dimensional flow and fuzziness in quantum gravity: Emergence of stochastic spacetime. <i>Nuclear Physics B</i> , 2017, 923, 144-167.	2.5	15
40	Deformed symmetries in noncommutative and multifractional spacetimes. <i>Physical Review D</i> , 2017, 95, .	4.7	11
41	Stability of Schwarzschild singularity in non-local gravity. <i>Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics</i> , 2017, 773, 596-600.	4.1	24
42	Complex dimensions and their observability. <i>Physical Review D</i> , 2017, 96, .	4.7	18
43	Imprint of quantum gravity in the dimension and fabric of spacetime. <i>Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics</i> , 2017, 774, 630-634.	4.1	19
44	Finite entanglement entropy and spectral dimension in quantum gravity. <i>European Physical Journal C</i> , 2017, 77, 1.	3.9	5
45	Multifractional theories: an unconventional review. <i>Journal of High Energy Physics</i> , 2017, 2017, 1.	4.7	44
46	Detecting quantum gravity in the sky. , 2017, , .		1
47	Big-Bang Problem. <i>Graduate Texts in Physics</i> , 2017, , 261-300.	0.2	0
48	Hot Big Bang Model. <i>Graduate Texts in Physics</i> , 2017, , 13-62.	0.2	0
49	The Problem of Quantum Gravity. <i>Graduate Texts in Physics</i> , 2017, , 389-406.	0.2	0
50	Publisher's Note: Particle-physics constraints on multifractal spacetimes [Phys. Rev. D93, 025005 (2016)]. <i>Physical Review D</i> , 2016, 94, .	4.7	0
51	Publisher's Note: What gravity waves are telling about quantum spacetime [Phys. Rev. D93, 124065 (2016)]. <i>Physical Review D</i> , 2016, 94, .	4.7	3
52	Quantum spectral dimension in quantum field theory. <i>International Journal of Modern Physics D</i> , 2016, 25, 1650058.	2.1	14
53	What gravity waves are telling about quantum spacetime. <i>Physical Review D</i> , 2016, 93, .	4.7	32
54	Particle-physics constraints on multifractal spacetimes. <i>Physical Review D</i> , 2016, 93, .	4.7	8

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55	Cosmic microwave background and inflation in multi-fractional spacetimes. <i>Journal of Cosmology and Astroparticle Physics</i> , 2016, 2016, 039-039.	5.4	25
56	Standard Model in multiscale theories and observational constraints. <i>Physical Review D</i> , 2016, 94, .	4.7	11
57	ABC of multi-fractal spacetimes and fractional sea turtles. <i>European Physical Journal C</i> , 2016, 76, 1.	3.9	21
58	Dimensional flow in discrete quantum geometries. <i>Physical Review D</i> , 2015, 91, .	4.7	46
59	Nonlocal quantum gravity and M-theory. <i>Physical Review D</i> , 2015, 91, .	4.7	60
60	What can quantum cosmology say about the inflationary universe?. <i>Journal of Physics: Conference Series</i> , 2015, 626, 012003.	0.4	2
61	Anomaly-free cosmological perturbations in effective canonical quantum gravity. <i>Journal of Cosmology and Astroparticle Physics</i> , 2015, 2015, 051-051.	5.4	82
62	QUANTUM FIELD THEORY WITH VARYING COUPLINGS. <i>International Journal of Modern Physics A</i> , 2014, 29, 1450012.	1.5	15
63	Quantum cosmological consistency condition for inflation. <i>Journal of Cosmology and Astroparticle Physics</i> , 2014, 2014, 026-026.	5.4	11
64	Strong Planck constraints on braneworld and non-commutative inflation. <i>Journal of Cosmology and Astroparticle Physics</i> , 2014, 2014, 052-052.	5.4	32
65	Loop quantum cosmology from group field theory. <i>Physical Review D</i> , 2014, 90, .	4.7	29
66	Spectral dimension of quantum geometries. <i>Classical and Quantum Gravity</i> , 2014, 31, 135014.	4.0	34
67	Nonlocality in string theory. <i>Journal of Physics A: Mathematical and Theoretical</i> , 2014, 47, 355402.	2.1	44
68	Super-accelerating bouncing cosmology in asymptotically free non-local gravity. <i>European Physical Journal C</i> , 2014, 74, 1.	3.9	52
69	Varying electric charge in multiscale spacetimes. <i>Physical Review D</i> , 2014, 89, .	4.7	16
70	MULTIFRACTIONAL SPACETIMES, ASYMPTOTIC SAFETY AND HOËVAË“LIFSHITZ GRAVITY. <i>International Journal of Modern Physics A</i> , 2013, 28, 1350092.	1.5	18
71	Symmetries and propagator in multifractional scalar field theory. <i>Physical Review D</i> , 2013, 87, .	4.7	11
72	Relativistic particle in multiscale spacetimes. <i>Physical Review D</i> , 2013, 88, .	4.7	5

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73	Probing the quantum nature of spacetime by diffusion. <i>Physical Review D</i> , 2013, 87, .	4.7	72
74	Diffusion in multiscale spacetimes. <i>Physical Review E</i> , 2013, 87, 012123.	2.1	46
75	Observational effects from quantum cosmology. <i>Annalen Der Physik</i> , 2013, 525, 323-338.	2.4	37
76	Multi-scale gravity and cosmology. <i>Journal of Cosmology and Astroparticle Physics</i> , 2013, 2013, 041-041.	5.4	58
77	Laplacians on discrete and quantum geometries. <i>Classical and Quantum Gravity</i> , 2013, 30, 125006.	4.0	22
78	Spectral dimension and diffusion in multiscale spacetimes. <i>Physical Review D</i> , 2013, 88, .	4.7	22
79	Black-hole entropy and minimal diffusion. <i>Physical Review D</i> , 2013, 88, .	4.7	23
80	Group field cosmology: a cosmological field theory of quantum geometry. <i>Classical and Quantum Gravity</i> , 2012, 29, 105005.	4.0	35
81	Introduction to Loop Quantum Cosmology. <i>Symmetry, Integrability and Geometry: Methods and Applications (SIGMA)</i> , 2012, , .	0.5	89
82	Introduction to multifractional spacetimes. , 2012, , .		13
83	Inflationary spectra and observations in loop quantum cosmology. <i>Journal of Physics: Conference Series</i> , 2012, 360, 012027.	0.4	2
84	Diffusion in quantum geometry. <i>Physical Review D</i> , 2012, 86, .	4.7	28
85	Quantum mechanics in fractional and other anomalous spacetimes. <i>Journal of Mathematical Physics</i> , 2012, 53, .	1.1	39
86	Geometry and field theory in multi-fractional spacetime. <i>Journal of High Energy Physics</i> , 2012, 2012, 1.	4.7	98
87	Geometry of fractional spaces. <i>Advances in Theoretical and Mathematical Physics</i> , 2012, 16, 549-644.	0.6	96
88	Momentum transforms and Laplacians in fractional spaces. <i>Advances in Theoretical and Mathematical Physics</i> , 2012, 16, 1315-1348.	0.6	22
89	Observational test of inflation in loop quantum cosmology. <i>Journal of Cosmology and Astroparticle Physics</i> , 2011, 2011, 046-046.	5.4	67
90	Fractional and noncommutative spacetimes. <i>Physical Review D</i> , 2011, 84, .	4.7	36

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91	Observational Constraints on Loop Quantum Cosmology. Physical Review Letters, 2011, 107, 211302.	7.8	96
92	Discrete to continuum transition in multifractal spacetimes. Physical Review D, 2011, 84, .	4.7	29
93	Gravity on a multifractal. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2011, 697, 251-253.	4.1	53
94	Two-point functions in (loop) quantum cosmology. Classical and Quantum Gravity, 2011, 28, 125014.	4.0	18
95	Inflationary observables in loop quantum cosmology. Journal of Cosmology and Astroparticle Physics, 2011, 2011, 032-032.	5.4	44
96	String theory as a diffusing system. Journal of High Energy Physics, 2010, 2010, 1.	4.7	17
97	Quantum field theory, gravity and cosmology in a fractal universe. Journal of High Energy Physics, 2010, 2010, 1.	4.7	122
98	COSMOLOGICAL ROLLING SOLUTIONS OF NONLOCAL THEORIES. International Journal of Modern Physics D, 2010, 19, 329-338.	2.1	28
99	Detailed balance in Ho ^À ™ava-Lifshitz gravity. Physical Review D, 2010, 81, .	4.7	64
100	Fractal Universe and Quantum Gravity. Physical Review Letters, 2010, 104, 251301.	7.8	213
101	Nonlocal gravity and the diffusion equation. Physical Review D, 2010, 82, .	4.7	67
102	Cosmological Bardeen-Cooper-Schrieffer condensate as dark energy. Physical Review D, 2010, 81, .	4.7	36
103	Cosmology of the Lifshitz universe. Journal of High Energy Physics, 2009, 2009, 112-112.	4.7	267
104	Superconducting loop quantum gravity and the cosmological constant. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2009, 672, 386-389.	4.1	16
105	Barbero-Immirzi field in canonical formalism of pure gravity. Physical Review D, 2009, 79, .	4.7	75
106	Kinks of open superstring field theory. Nuclear Physics B, 2009, 823, 234-253.	2.5	23
107	Loop Quantum Cosmology and Tensor Perturbations in the Early Universe. Advanced Science Letters, 2009, 2, 184-193.	0.2	34
108	Quantum Gravity as a Fermi Liquid. Foundations of Physics, 2008, 38, 1148-1184.	1.3	23

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109	Localization of nonlocal theories. <i>Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics</i> , 2008, 662, 285-289.	4.1	101
110	Nonlocal instantons and solitons in string models. <i>Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics</i> , 2008, 669, 102-106.	4.1	33
111	Stability of multifield cosmological solutions. <i>Physical Review D</i> , 2008, 77, .	4.7	19
112	Tachyon solutions in boundary and open string field theory. <i>Physical Review D</i> , 2008, 78, .	4.7	25
113	Inflationary scalar spectrum in loop quantum cosmology. <i>Classical and Quantum Gravity</i> , 2007, 24, 829-853.	4.0	32
114	Route to nonlocal cosmology. <i>Physical Review D</i> , 2007, 76, .	4.7	77
115	Tachyon dark energy models: Dynamics and constraints. <i>Physical Review D</i> , 2006, 74, .	4.7	75
116	Ghost conditions for Gauss-Bonnet cosmologies. <i>Nuclear Physics B</i> , 2006, 752, 404-438.	2.5	103
117	Cosmological tachyon from cubic string field theory. <i>Journal of High Energy Physics</i> , 2006, 2006, 012-012.	4.7	63
118	Consistency relations and degeneracies in (non)commutative patch inflation. <i>Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics</i> , 2005, 606, 177-183.	4.1	16
119	de Sitter thermodynamics and the braneworld. <i>Journal of High Energy Physics</i> , 2005, 2005, 060-060.	4.7	47
120	Non-Gaussianity in braneworld and tachyon inflation. <i>Journal of Cosmology and Astroparticle Physics</i> , 2005, 2005, 009-009.	5.4	21
121	Flow equations in generalized braneworld scenarios. <i>Physical Review D</i> , 2005, 72, .	4.7	7
122	Patch dualities and remarks on nonstandard cosmologies. <i>Physical Review D</i> , 2005, 71, .	4.7	39
123	Dark energy and cosmological solutions in second-order string gravity. <i>Classical and Quantum Gravity</i> , 2005, 22, 3977-4006.	4.0	150
124	Braneworld Cosmology Almost without Branes. <i>NATO Science Series Series II, Mathematics, Physics and Chemistry</i> , 2005, , 297-303.	0.1	0
125	Degeneracy of consistency equations in braneworld inflation. <i>Journal of Cosmology and Astroparticle Physics</i> , 2004, 2004, 002-002.	5.4	12
126	Observational constraints on patch inflation in noncommutative spacetime. <i>Physical Review D</i> , 2004, 70, .	4.7	63

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127	Noncommutative models in patch cosmology. <i>Physical Review D</i> , 2004, 70, .	4.7	40
128	Slow-roll parameters in braneworld cosmologies. <i>Physical Review D</i> , 2004, 69, .	4.7	78
129	Consistency equations in Randallâ€“Sundrum cosmology: a test for braneworld inflation. <i>Journal of Cosmology and Astroparticle Physics</i> , 2003, 2003, 009-009.	5.4	23