Lee Smolin

List of Publications by Year
in descending order

98 papers	4,934 citations	147801 31 h-index	91884 69 g-index
103 all docs	103 docs citations	103 times ranked	1971 citing authors

#	Article	IF	Citations
1	â€œHot-spottingâ€•to improve vaccine allocation by harnessing digital contact tracing technology: An application of percolation theory. PLoS ONE, 2021, 16, e0256889.	2.5	1
2	Realism and causality. II. Retrocausality in energetic causal sets. Physical Review D, 2020, 102, .	4.7	5
3	Realism and causality. I. Pilot wave and retrocausal models as possible facilitators. Physical Review D, 2020, 102, .	4.7	6
4	The Quantum Cosmological Constant. Symmetry, 2019, 11, 1130.	2.2	11
5	Zero-parameter extension of general relativity with a varying cosmological constant. Physical Review D, 2019, 100, .	4.7	19
6	Cosmology of minimal varying Lambda theories. Physical Review D, 2019, 100, .	4.7	28
7	A Universe that Does Not Know the Time. Universe, 2019, 5, 84.	2.5	15
8	The Dynamics of Difference. Foundations of Physics, 2018, 48, 121-134.	1.3	17
9	Reversing the irreversible: From limit cycles to emergent time symmetry. Physical Review D, 2018, 97, .	4.7	4
10	Interaction-Free Effects Between Distant Atoms. Foundations of Physics, 2018, 48, 1-16.	1.3	14
11	What Are We Missing in Our Search for Quantum Gravity?. , 2018, , 287-304.		4
12	Extending Dualities to Trialities Deepens the Foundations of Dynamics. International Journal of Theoretical Physics, 2017, 56, 221-231.	1.2	0
13	Thermodynamics of quantum spacetime histories. Physical Review D, 2017, 96, .	4.7	3
14	MOND as a regime of quantum gravity. Physical Review D, 2017, 96, .	4.7	25
15	Four Principles for Quantum Gravity. Fundamental Theories of Physics, 2017, , 427-450.	0.3	9
16	Cosmological signatures of time-asymmetric gravity. Physical Review D, 2016, 94, .	4.7	5
17	Quantum Mechanics and the Principle of Maximal Variety. Foundations of Physics, 2016, 46, 736-758.	1.3	18
18	Spin foam models as energetic causal sets. Physical Review D, 2016, 93, .	4.7	10

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19	Dynamics of the cosmological and Newtonâ€™s constant. Classical and Quantum Gravity, 2016, 33, 025011.	4.0	17
20	Time asymmetric extensions of general relativity. Physical Review D, 2015, 92, .	4.7	13
21	Temporal naturalism. Studies in History and Philosophy of Science Part B - Studies in History and Philosophy of Modern Physics, 2015, 52, 86-102.	1.4	14
22	A shape dynamical approach to holographic renormalization. European Physical Journal C, 2015, 75, 1.	3.9	11
23	Unification of the State with the Dynamical Law. Foundations of Physics, 2015, 45, 1-10.	1.3	2
24	General relativity as the equation of state of spin foam. Classical and Quantum Gravity, 2014, 31, 195007.	4.0	5
25	Linking shape dynamics and loop quantum gravity. Physical Review D, 2014, 90, .	4.7	3
26	Gravitational origin of the weak interactionâ€™s chirality. Physical Review D, 2014, 89, .	4.7	26
27	The universe as a process of unique events. Physical Review D, 2014, 90, .	4.7	45
28	Black hole information paradox and relative locality. Physical Review D, 2014, 90, .	4.7	2
29	Positive energy in quantum gravity. Physical Review D, 2014, 90, .	4.7	2
30	Quantum energetic causal sets. Physical Review D, 2014, 90, .	4.7	35
31	Time, laws, and the future of cosmology. Physics Today, 2014, 67, 38-43.	0.3	57
32	A Perspective on the Landscape Problem. Foundations of Physics, 2013, 43, 21-45.	1.3	15
33	Reply to â€œComment on â€˜Relative locality and the soccer ball problemâ€™â€. Physical Review D, 2013, 88, .	4.7	7
34	OPERA NEUTRINOS AND DEFORMED SPECIAL RELATIVITY. Modern Physics Letters A, 2012, 27, 1250063.	1.2	12
35	Fundamental quantum optics experiments conceivable with satellitesâ€”reaching relativistic distances and velocities. Classical and Quantum Gravity, 2012, 29, 224011.	4.0	131
36	A Real Ensemble Interpretation of Quantum Mechanics. Foundations of Physics, 2012, 42, 1239-1261.	1.3	19

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37	Principle of relative locality. Physical Review D, 2011, 84, .	4.7	257
38	Unimodular loop quantum gravity and the problems of time. Physical Review D, 2011, 84, .	4.7	40
39	Relative locality: a deepening of the relativity principle. General Relativity and Gravitation, 2011, 43, 2547-2553.	2.0	86
40	Classical paradoxes of locality and their possible quantum resolutions in deformed special relativity. General Relativity and Gravitation, 2011, 43, 3671-3691.	2.0	14
41	Relative locality and the soccer ball problem. Physical Review D, 2011, 84, .	4.7	42
42	RELATIVE LOCALITY: A DEEPENING OF THE RELATIVITY PRINCIPLE. International Journal of Modern Physics D, 2011, 20, 2867-2873.	2.1	22
43	Note on the Plebanski action with the cosmological constant and an Immirzi parameter. Physical Review D, 2010, 81, .	4.7	14
44	Unification of gravity, gauge fields and Higgs bosons. Journal of Physics A: Mathematical and Theoretical, 2010, 43, 445401.	2.1	24
45	Prospects for constraining quantum gravity dispersion with near term observations. Physical Review D, 2009, 80, .	4.7	117
46	Plebanski action extended to a unification of gravity and Yang-Mills theory. Physical Review D, 2009, 80, .	4.7	34
47	Disordered locality as an explanation for the dark energy. Physical Review D, 2009, 80, .	4.7	13
48	Quantization of unimodular gravity and the cosmological constant problems. Physical Review D, 2009, 80, .	4.7	122
49	The unique universe. Physics World, 2009, 22, 21-26.	0.0	12
50	Anomalous Cosmic-Microwave-Background Polarization and Gravitational Chirality. Physical Review Letters, 2008, 101, 141101.	7.8	86
51	Holography and the scale invariance of density fluctuations. Classical and Quantum Gravity, 2007, 24, 3691-3699.	4.0	30
52	Disordered locality in loop quantum gravity states. Classical and Quantum Gravity, 2007, 24, 3813-3823.	4.0	42
53	Quantum gravity faces reality. Physics Today, 2006, 59, 44-48.	0.3	4
54	Gauge fixing in causal dynamical triangulations. Nuclear Physics B, 2006, 739, 120-130.	2.5	8

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55	ization of topological <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	2.5	8
56	Falsifiable predictions from semiclassical quantum gravity. Nuclear Physics B, 2006, 742, 142-157.	2.5	66
57	THE MAIN POSTULATES AND RESULTS OF LOOP QUANTUM GRAVITY. , 2006, , .		1
58	String theories with deformed energy-momentum relations, and a possible nontachyonic bosonic string. Physical Review D, 2005, 71, .	4.7	153
59	Quantum theories of gravity: results and prospects. , 2004, , 492-527.		1
60	2+1 gravity and doubly special relativity. Physical Review D, 2004, 69, .	4.7	100
61	Quantum theory from quantum gravity. Physical Review D, 2004, 70, .	4.7	49
62	AN INVITATION TO LOOP QUANTUM GRAVITY. , 2004, , .		25
63	Quantum symmetry, the cosmological constant and Planck-scale phenomenology. Classical and Quantum Gravity, 2004, 21, 3095-3110.	4.0	167
64	Atoms of Space and Time. Scientific American, 2004, 290, 66-75.	1.0	38
65	Cosmological natural selection as the explanation for the complexity of the universe. Physica A: Statistical Mechanics and Its Applications, 2004, 340, 705-713.	2.6	19
66	Quantum gravity and inflation. Physical Review D, 2004, 70, .	4.7	15
67	Triply special relativity. Physical Review D, 2004, 70, .	4.7	77
68	Gravity's rainbow. Classical and Quantum Gravity, 2004, 21, 1725-1736.	4.0	472
69	Generalized Lorentz invariance with an invariant energy scale. Physical Review D, 2003, 67, .	4.7	549
70	The selfâ€“organization of space and time. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2003, 361, 1081-1088.	3.4	17
71	Lorentz Invariance with an Invariant Energy Scale. Physical Review Letters, 2002, 88, 190403.	7.8	939
72	Eleven-dimensional supergravity as a constrained topological field theory. Nuclear Physics B, 2001, 601, 191-208.	2.5	18

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73	Strings as perturbations of evolving spin networks. Nuclear Physics, Section B, Proceedings Supplements, 2000, 88, 103-113.	0.4	10
74	Holographic formulation of quantum general relativity. Physical Review D, 2000, 61, .	4.7	43
75	theory as a matrix extension of Chernâ€“Simons theory. Nuclear Physics B, 2000, 591, 227-242.	2.5	36
76	The new universe around the next corner. Physics World, 1999, 12, 79-84.	0.0	10
77	Quantum geometry with intrinsic local causality. Physical Review D, 1998, 58, .	4.7	51
78	Quantum deformation of quantum gravity. Nuclear Physics B, 1996, 473, 267-290.	2.5	90
79	Linking topological quantum field theory and nonperturbative quantum gravity. Journal of Mathematical Physics, 1995, 36, 6417-6455.	1.1	176
80	The Chern-Simons invariant as the natural time variable for classical and quantum cosmology. Nuclear Physics B, 1995, 449, 289-314.	2.5	47
81	Quantum fluctuations and inertia. Physics Letters, Section A: General, Atomic and Solid State Physics, 1986, 113, 408-412.	2.1	43
82	On the intrinsic entropy of the gravitational field. General Relativity and Gravitation, 1985, 17, 417-437.	2.0	48
83	The thermodynamics of gravitational radiation. General Relativity and Gravitation, 1984, 16, 205-210.	2.0	27
84	Scientific alternatives to the anthropic principle. , 0, , 323-366.		17
85	The science of the one universe in time. , 0, , 5-45.		0
86	The nature and scope of this work. , 0, , x-xxii.		0
87	The context and consequences of the argument. , 0, , 46-99.		0
88	The singular existence of the universe. , 0, , 100-161.		0
89	The inclusive reality of time. , 0, , 162-258.		0
90	The mutability of the laws of nature. , 0, , 259-301.		0

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91	The selective realism of mathematics. , 0, , 302-348.		0
92	Cosmology in crisis. , 0, , 353-366.		0
93	Principles for a cosmological theory. , 0, , 367-392.		0
94	The setting: the puzzles of contemporary cosmology. , 0, , 393-413.		0
95	Hypotheses for a new cosmology. , 0, , 414-421.		0
96	Approaches to solving the meta-law dilemma. , 0, , 447-479.		0
97	Implications of temporal naturalism for the philosophy of mind. , 0, , 480-483.		0
98	An agenda for science. , 0, , 484-499.		0