

# Renate Loll

## List of Publications by Year in descending order

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62  
papers

3,904  
citations

186265  
28  
h-index

155660  
55  
g-index

62  
all docs

62  
docs citations

62  
times ranked

637  
citing authors

#	ARTICLE	IF	CITATIONS
1	The Spectral Dimension of the Universe is Scale Dependent. <i>Physical Review Letters</i> , 2005, 95, 171301.	7.8	380
2	Nonperturbative quantum gravity. <i>Physics Reports</i> , 2012, 519, 127-210.	25.6	312
3	Emergence of a 4D World from Causal Quantum Gravity. <i>Physical Review Letters</i> , 2004, 93, 131301.	7.8	301
4	Reconstructing the Universe. <i>Physical Review D</i> , 2005, 72, .	4.7	276
5	Non-perturbative Lorentzian quantum gravity, causality and topology change. <i>Nuclear Physics B</i> , 1998, 536, 407-434.	2.5	261
6	Dynamically triangulating Lorentzian quantum gravity. <i>Nuclear Physics B</i> , 2001, 610, 347-382.	2.5	203
7	Quantum gravity from causal dynamical triangulations: a review. <i>Classical and Quantum Gravity</i> , 2020, 37, 013002.	4.0	179
8	Nonperturbative Lorentzian Path Integral for Gravity. <i>Physical Review Letters</i> , 2000, 85, 924-927.	7.8	149
9	Discrete Approaches to Quantum Gravity in Four Dimensions. <i>Living Reviews in Relativity</i> , 1998, 1, 13.	26.7	142
10	Planckian Birth of a Quantum de Sitter Universe. <i>Physical Review Letters</i> , 2008, 100, 091304.	7.8	116
11	Nonperturbative quantum de Sitter universe. <i>Physical Review D</i> , 2008, 78, .	4.7	106
12	Semiclassical universe from first principles. <i>Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics</i> , 2005, 607, 205-213.	4.1	96
13	The universe from scratch. <i>Contemporary Physics</i> , 2006, 47, 103-117.	1.8	95
14	Second-Order Phase Transition in Causal Dynamical Triangulations. <i>Physical Review Letters</i> , 2011, 107, 211303.	7.8	93
15	Nonperturbative 3D Lorentzian quantum gravity. <i>Physical Review D</i> , 2001, 64, .	4.7	80
16	CDT meets Hořava-Lifshitz gravity. <i>Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics</i> , 2010, 690, 413-419.	4.1	76
17	A proper-time cure for the conformal sickness in quantum gravity. <i>Nuclear Physics B</i> , 2001, 606, 357-379.	2.5	64
18	Second- and first-order phase transitions in causal dynamical triangulations. <i>Physical Review D</i> , 2012, 85, .	4.7	61

#	ARTICLE	IF	CITATIONS
19	Discrete Lorentzian quantum gravity. Nuclear Physics, Section B, Proceedings Supplements, 2001, 94, 96-107.	0.4	60
20	The semiclassical limit of causal dynamical triangulations. Nuclear Physics B, 2011, 849, 144-165.	2.5	60
21	The emergence of spacetime or quantum gravity on your desktop. Classical and Quantum Gravity, 2008, 25, 114006.	4.0	54
22	Renormalization group flow in CDT. Classical and Quantum Gravity, 2014, 31, 165003.	4.0	51
23	New perspective on matter coupling in 2D quantum gravity. Physical Review D, 1999, 60, .	4.7	50
24	A string field theory based on causal dynamical triangulations. Journal of High Energy Physics, 2008, 2008, 032-032.	4.7	40
25	Causal Dynamical Triangulations without preferred foliation. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2013, 724, 155-159.	4.1	36
26	The relation between Euclidean and Lorentzian 2D quantum gravity. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2000, 475, 24-32.	4.1	35
27	Crossing the $c=1$ barrier in 2D Lorentzian quantum gravity. Physical Review D, 2000, 61, .	4.7	34
28	Euclidean and Lorentzian quantum gravity – lessons from two dimensions. Chaos, Solitons and Fractals, 1999, 10, 177-195.	5.1	33
29	Introducing quantum Ricci curvature. Physical Review D, 2018, 97, .	4.7	29
30	Characteristics of the new phase in CDT. European Physical Journal C, 2017, 77, 152.	3.9	28
31	Counting a black hole in Lorentzian product triangulations. Classical and Quantum Gravity, 2006, 23, 3849-3878.	4.0	27
32	Shaken, but not stirred – Potts model coupled to quantum gravity. Nuclear Physics B, 2009, 807, 251-264.	2.5	27
33	Geometry of the quantum universe. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2010, 690, 420-426.	4.1	26
34	De Sitter universe from causal dynamical triangulations without preferred foliation. Physical Review D, 2013, 88, .	4.7	24
35	Implementing quantum Ricci curvature. Physical Review D, 2018, 97, .	4.7	24
36	New loop representations for 2+1 gravity. Classical and Quantum Gravity, 1994, 11, 2417-2434.	4.0	22

#	ARTICLE	IF	CITATIONS
37	(2+1)-dimensional quantum gravity as the continuum limit of causal dynamical triangulations. Physical Review D, 2007, 76, .	4.7	20
38	Quantum Gravity: the art of building spacetime. , 2009, , 341-359.		19
39	Renormalization in Quantum Theories of Geometry. Frontiers in Physics, 2020, 8, .	2.1	19
40	CAUSAL DYNAMICAL TRIANGULATIONS AND THE SEARCH FOR A THEORY OF QUANTUM GRAVITY. International Journal of Modern Physics D, 2013, 22, 1330019.	2.1	18
41	How round is the quantum de Sitter universe?. European Physical Journal C, 2020, 80, 1.	3.9	18
42	Role of the extra coupling in the kinetic term in Hoava-Lifshitz gravity. Physical Review D, 2014, 90, . $\Lambda^{\text{TM}}$	4.7	16
43	Quantum gravity and matter: counting graphs on causal dynamical triangulations. General Relativity and Gravitation, 2007, 39, 863-898.	2.0	15
44	Quantum Gravity via Causal Dynamical Triangulations. , 2014, , 723-741.		14
45	CDT and cosmology. Comptes Rendus Physique, 2017, 18, 265-274.	0.9	12
46	Causal dynamical triangulations and the quest for quantum gravity. , 2012, , 321-337.		10
47	Exploring torus universes in causal dynamical triangulations. Physical Review D, 2013, 88, .	4.7	10
48	Locally causal dynamical triangulations in two dimensions. Physical Review D, 2015, 92, .	4.7	10
49	Loop approaches to gauge field theories. Theoretical and Mathematical Physics(Russian Federation), 1992, 93, 1415-1432.	0.9	9
50	Putting a cap on causality violations in causal dynamical triangulations. Journal of High Energy Physics, 2007, 2007, 017-017.	4.7	9
51	Wilson loops in nonperturbative quantum gravity. Physical Review D, 2015, 92, .	4.7	9
52	Deriving spacetime from first principles. Annalen Der Physik, 2010, 19, 186-195.	2.4	8
53	Coupling a point-like mass to quantum gravity with causal dynamical triangulations. Classical and Quantum Gravity, 2010, 27, 185025.	4.0	8
54	Curvature profiles for quantum gravity. Physical Review D, 2021, 103, .	4.7	6

#	ARTICLE	IF	CITATIONS
55	Quantum flatness in two-dimensional quantum gravity. Physical Review D, 2021, 104, .	4.7	6
56	Spherically symmetric solutions of the $\hat{h}$ Physical Review D, 2017, 96, .	4.7	4
57	The transfer matrix in four dimensional causal dynamical triangulations. , 2013, , .		3
58	Quantum spacetime, from a practitioner's point of view. , 2013, , .		3
59	Geometric flux formula for the gravitational Wilson loop. Classical and Quantum Gravity, 2021, 38, 075011.	4.0	3
60	THE EMERGENCE OF (EUCLIDEAN) DE SITTER SPACE-TIME. , 2008, , .		3
61	Nonperturbative sum over topologies in 2D Lorentzian quantum gravity. AIP Conference Proceedings, 2006, , .	0.4	1
62	CAUSAL DYNAMICAL TRIANGULATIONS AND THE SEARCH FOR A THEORY OF QUANTUM GRAVITY. , 2015, , .		1