

# Richard Paul Woodard

## List of Publications by Year in descending order

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131  
papers

7,123  
citations

53794

45  
h-index

58581

82  
g-index

131  
all docs

131  
docs citations

131  
times ranked

2047  
citing authors

#	ARTICLE	IF	CITATIONS
1	How Inflationary Gravitons Affect the Force of Gravity. Universe, 2022, 8, 376.	2.5	9
2	Inflaton effective potential from photons for general $\hat{\mu}$ . Physical Review D, 2021, 103, .	4.7	7
3	One-loop graviton corrections to conformal scalars on a de Sitter background. Physical Review D, 2021, 103, .	4.7	3
4	Graviton self-energy from gravitons in cosmology*. Classical and Quantum Gravity, 2021, 38, 145024.	4.0	5
5	Inflaton effective potential from fermions for general $\hat{\mu}$ . Physical Review D, 2021, 103, .	4.7	5
6	Inflaton effective potential for general $\hat{\mu}$ . Physical Review D, 2020, 102, .	4.7	7
7	Single graviton loop contribution to the self-mass of a massless, conformally coupled scalar on a de Sitter background. Physical Review D, 2020, 101, .	4.7	9
8	Bose-Fermi cancellation of cosmological Coleman-Weinberg potentials. Classical and Quantum Gravity, 2020, 37, 165007.	4.0	8
9	Nonlocal cosmology II. Cosmic acceleration without fine tuning or dark energy. Journal of Cosmology and Astroparticle Physics, 2019, 2019, 034-034.	5.4	27
10	Breaking of scaling symmetry by massless scalar on de Sitter. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2019, 798, 134944.	4.1	5
11	Ricci subtraction for cosmological Coleman-Weinberg potentials. Physical Review D, 2019, 100, .	4.7	9
12	Cosmological Coleman-Weinberg potentials and inflation. Physical Review D, 2019, 99, .	4.7	14
13	Exciting the scalar ghost mode through time evolution. Physical Review D, 2019, 99, .	4.7	7
14	Non-Gaussianity from features in the power spectrum. Physical Review D, 2019, 100, .	4.7	3
15	Graviton propagator in a 2-parameter family of de Sitter breaking gauges. Journal of High Energy Physics, 2019, 2019, 1.	4.7	8
16	From non-trivial geometries to power spectra and vice versa. Journal of Cosmology and Astroparticle Physics, 2018, 2018, 003-003.	5.4	6
17	GW170817 falsifies dark matter emulators. Physical Review D, 2018, 97, .	4.7	120
18	The Case for Nonlocal Modifications of Gravity. Universe, 2018, 4, 88.	2.5	19

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19	Structure formation in nonlocal MOND. Journal of Cosmology and Astroparticle Physics, 2018, 2018, 037-037.	5.4	10
20	Scalar enhancement of the photon electric field by the tail of the graviton propagator. Physical Review D, 2018, 98, .	4.7	12
21	Quantum gravity: A brief history of ideas and some prospects. , 2017, , 325-347.		2
22	Invariant measure of the one-loop quantum gravitational backreaction on inflation. Physical Review D, 2017, 95, .	4.7	14
23	Deducing cosmological observables from the $S$ matrix. Physical Review D, 2017, 96, .	4.7	19
24	Improving the single scalar consistency relation. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2017, 773, 225-230.	4.1	3
25	Analytic approximation for the primordial spectra of single scalar potential models and its use in their reconstruction. Physical Review D, 2017, 96, .	4.7	7
26	Precision predictions for the primordial power spectra from $f(R)$ models of inflation. Nuclear Physics B, 2016, 911, 318-337.	2.5	45
27	Improved cosmological model. Physical Review D, 2016, 94, .	4.7	6
28	Precision predictions for the primordial power spectra of scalar potential models of inflation. Physical Review D, 2016, 93, .	4.7	16
29	Determining cosmology for a nonlocal realization of MOND. Physical Review D, 2016, 94, .	4.7	22
30	Effect of features on the functional form of the scalar power spectrum. Physical Review D, 2016, 94, .	4.7	5
31	Some inconvenient truths. Journal of High Energy Physics, 2016, 2016, 1.	4.7	12
32	Quantum scalar corrections to the gravitational potentials on de Sitter background. Journal of High Energy Physics, 2016, 2016, 1.	4.7	27
33	Excitation of photons by inflationary gravitons. Physical Review D, 2015, 91, .	4.7	27
34	One-loop quantum electrodynamic correction to the gravitational potentials on de Sitter spacetime. Physical Review D, 2015, 92, .	4.7	18
35	Fine tuning may not be enough. Journal of Cosmology and Astroparticle Physics, 2015, 2015, 022-022.	5.4	16
36	Quantum gravity: A brief history of ideas and some prospects. International Journal of Modern Physics D, 2015, 24, 1530028.	2.1	33

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37	Nonlocal metric realizations of MOND. Canadian Journal of Physics, 2015, 93, 242-249.	1.1	17
38	Ostrogradsky's theorem on Hamiltonian instability. Scholarpedia Journal, 2015, 10, 32243.	0.3	373
39	Perturbative quantum gravity comes of age. International Journal of Modern Physics D, 2014, 23, 1430020.	2.1	67
40	Electrodynamic effects of inflationary gravitons. Classical and Quantum Gravity, 2014, 31, 175002.	4.0	32
41	A caveat on building nonlocal models of cosmology. Journal of Cosmology and Astroparticle Physics, 2014, 2014, 008-008.	5.4	27
42	Representing the graviton self-energy on de Sitter background. Physical Review D, 2014, 90, .	4.7	9
43	Perils of analytic continuation. Physical Review D, 2014, 89, .	4.7	42
44	Nonlocal Models of Cosmic Acceleration. Foundations of Physics, 2014, 44, 213-233.	1.3	96
45	Field equations and cosmology for a class of nonlocal metric models of MOND. Physical Review D, 2014, 90, .	4.7	19
46	One loop field strengths of charges and dipoles on a locally de Sitter background. European Physical Journal C, 2013, 73, 1.	3.9	10
47	Observational viability and stability of nonlocal cosmology. Journal of Cosmology and Astroparticle Physics, 2013, 2013, 036-036.	5.4	92
48	Representing the vacuum polarization on de Sitter. Journal of Mathematical Physics, 2013, 54, .	1.1	16
49	Hartree approximation to the one loop quantum gravitational correction to the graviton mode function on de Sitter. Journal of Cosmology and Astroparticle Physics, 2013, 2013, 018-018.	5.4	20
50	Covariant vacuum polarizations on de Sitter background. Physical Review D, 2013, 87, .	4.7	18
51	Graviton propagator in a general invariant gauge on de Sitter. Journal of Mathematical Physics, 2012, 53, .	1.1	37
52	Issues concerning loop corrections to the primordial power spectra. Journal of Cosmology and Astroparticle Physics, 2012, 2012, 008-008.	5.4	33
53	Computing the primordial power spectra directly. Journal of Cosmology and Astroparticle Physics, 2012, 2012, 029-029.	5.4	16
54	Weyl-Weyl correlator in de Donder gauge on de Sitter space. Physical Review D, 2012, 86, .	4.7	35

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55	Graviton corrections to Maxwell's equations. Physical Review D, 2012, 85, .	4.7	26
56	Linearized Weyl-Weyl correlator in a de Sitter breaking gauge. Physical Review D, 2012, 85, .	4.7	35
57	Nonlocal metric formulations of modified Newtonian dynamics with sufficient lensing. Physical Review D, 2011, 84, .	4.7	66
58	Inflationary scalars do not affect gravitons at one loop. Physical Review D, 2011, 84, .	4.7	21
59	Scalar contribution to the graviton self-energy during inflation. Physical Review D, 2011, 83, .	4.7	29
60	Gauging away physics. Classical and Quantum Gravity, 2011, 28, 245013.	4.0	43
61	The graviton propagator in de Donder gauge on de Sitter background. Journal of Mathematical Physics, 2011, 52, .	1.1	51
62	A GRAVITATIONAL MECHANISM FOR COSMOLOGICAL SCREENING. International Journal of Modern Physics D, 2011, 20, 2847-2851.	2.1	27
63	The volume of the past light-cone and the Paneitz operator. General Relativity and Gravitation, 2010, 42, 2765-2783.	2.0	6
64	The $\langle \mathcal{T} \rangle$ correlator is time dependent. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2010, 694, 101-107.	4.1	55
65	Stochastic samples versus vacuum expectation values in cosmology. Journal of Cosmology and Astroparticle Physics, 2010, 2010, 016-016.	5.4	9
66	Quantum stress tensor fluctuations of a conformal field and inflationary cosmology. Physical Review D, 2010, 82, .	4.7	26
67	Transforming to Lorentz gauge on de Sitter. Journal of Mathematical Physics, 2009, 50, .	1.1	35
68	The Hubble effective potential. Journal of Cosmology and Astroparticle Physics, 2009, 2009, 003-003.	5.4	26
69	Reconstructing the distortion function for nonlocal cosmology. Journal of Cosmology and Astroparticle Physics, 2009, 2009, 023-023.	5.4	101
70	Stochastic inflationary scalar electrodynamics. Annals of Physics, 2008, 323, 1324-1360.	2.8	148
71	Scalar field equations from quantum gravity during inflation. Physical Review D, 2008, 77, .	4.7	50
72	Reduced time delay for gravitational waves with dark matter emulators. Physical Review D, 2008, 77, .	4.7	33

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73	Infrared propagator corrections for constant deceleration. <i>Classical and Quantum Gravity</i> , 2008, 25, 245013.	4.0	64
74	A simple operator check of the effective fermion mode function during inflation. <i>Classical and Quantum Gravity</i> , 2008, 25, 145009.	4.0	53
75	Two loop stress-energy tensor for inflationary scalar electrodynamics. <i>Physical Review D</i> , 2008, 78, .	4.7	54
76	Cosmology Is Not a Renormalization Group Flow. <i>Physical Review Letters</i> , 2008, 101, 081301.	7.8	28
77	Nonlocal Cosmology. <i>Physical Review Letters</i> , 2007, 99, 111301.	7.8	322
78	Avoiding Dark Energy with $1/R$ Modifications of Gravity. <i>Lecture Notes in Physics</i> , 2007, , 403-433.	0.7	432
79	Quantum gravity corrections to the one loop scalar self-mass during inflation. <i>Physical Review D</i> , 2007, 76, .	4.7	60
80	A generic test of modified gravity models which emulate dark matter. <i>Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics</i> , 2007, 652, 213-216.	4.1	37
81	Leading log solution for inflationary Yukawa theory. <i>Physical Review D</i> , 2006, 74, .	4.7	127
82	Dimensionally regulated graviton 1-point function in de Sitter. <i>Annals of Physics</i> , 2006, 321, 875-893.	2.8	51
83	The fermion self-energy during inflation. <i>Classical and Quantum Gravity</i> , 2006, 23, 1721-1761.	4.0	101
84	A Leading Log Approximation for Inflationary Quantum Field Theory. <i>Nuclear Physics, Section B, Proceedings Supplements</i> , 2005, 148, 108-119.	0.4	70
85	Stress tensor correlators in the Schwinger-Keldysh formalism. <i>Classical and Quantum Gravity</i> , 2005, 22, 1637-1645.	4.0	56
86	Stochastic quantum gravitational inflation. <i>Nuclear Physics B</i> , 2005, 724, 295-328.	2.5	198
87	Charged scalar self-mass during inflation. <i>Physical Review D</i> , 2005, 72, .	4.7	57
88	Letter: The Force of Gravity from a Lagrangian Containing Inverse Powers of the Ricci Scalar. <i>General Relativity and Gravitation</i> , 2004, 36, 855-862.	2.0	142
89	A generic problem with purely metric formulations of MOND. <i>Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics</i> , 2004, 578, 253-258.	4.1	40
90	Dynamics of superhorizon photons during inflation with vacuum polarization. <i>Annals of Physics</i> , 2004, 312, 1-16.	2.8	65

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91	Vacuum polarization and photon mass in inflation. American Journal of Physics, 2004, 72, 60-72.	0.7	65
92	One loop vacuum polarization in a locally de Sitter background. Annals of Physics, 2003, 303, 251-274.	2.8	104
93	A nonlocal metric formulation of MOND. Classical and Quantum Gravity, 2003, 20, 2737-2751.	4.0	82
94	Production of massless fermions during inflation. Journal of High Energy Physics, 2003, 2003, 059-059.	4.7	80
95	Plane waves in a general Robertson-Walker background. Classical and Quantum Gravity, 2003, 20, 5205-5223.	4.0	21
96	Photon Mass from Inflation. Physical Review Letters, 2002, 89, 101301.	7.8	125
97	Cosmology with a long range repulsive force. Physical Review D, 2002, 65, .	4.7	8
98	Super-acceleration from massless, minimally coupled $\phi^4$ . Classical and Quantum Gravity, 2002, 19, 4607-4626.	4.0	310
99	Resolving the $p_+ = 0$ ambiguity in a homogeneous electric background. Nuclear Physics, Section B, Proceedings Supplements, 2002, 108, 165-169.	0.4	6
100	The one loop effective action of QED for a general class of electric fields. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2002, 524, 233-239.	4.1	27
101	A newtonian model for the quantum gravitational back-reaction on inflation. Nuclear Physics, Section B, Proceedings Supplements, 2002, 104, 173-176.	0.4	3
102	Cosmology With a Long-Range Repulsive Force. , 2002, , 322-329.		0
103	Pair creation and axial anomaly in light-cone QED2. Journal of High Energy Physics, 2001, 2001, 008-008.	4.7	31
104	Canonical formalism for Lagrangians with nonlocality of finite extent. Physical Review A, 2000, 62, .	2.5	39
105	Cosmological Density Perturbations from a Quantum Gravitational Model of Inflation. Fortschritte Der Physik, 1999, 47, 389-400.	4.4	17
106	Cosmological Density Perturbations from a Quantum Gravitational Model of Inflation. Fortschritte Der Physik, 1999, 47, 389-400.	4.4	4
107	Nonperturbative Models for the Quantum Gravitational Back-Reaction on Inflation. Annals of Physics, 1998, 267, 145-192.	2.8	76
108	Matter contributions to the expansion rate of the universe. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 1998, 426, 21-28.	4.1	27

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109	Perturbative quantum gravity and Newton's law on a flat Robertson-Walker background. Nuclear Physics B, 1998, 534, 419-446.	2.5	37
110	The Quantum Gravitational Back-Reaction on Inflation. Annals of Physics, 1997, 253, 1-54.	2.8	237
111	Quantum gravity slows inflation. Nuclear Physics B, 1996, 474, 235-248.	2.5	261
112	Strong Infrared Effects in Quantum Gravity. Annals of Physics, 1995, 238, 1-82.	2.8	141
113	The physical basis for infra-red divergences in inflationary quantum gravity. Classical and Quantum Gravity, 1994, 11, 2969-2989.	4.0	93
114	The structure of perturbative quantum gravity on a de Sitter background. Communications in Mathematical Physics, 1994, 162, 217-248.	2.2	164
115	Two Loop Calculations Using Nonlocal Regularization. Annals of Physics, 1993, 221, 106-164.	2.8	33
116	Relaxing the cosmological constant. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 1993, 301, 351-357.	4.1	155
117	Enforcing the Wheeler-DeWitt constraint the easy way. Classical and Quantum Gravity, 1993, 10, 483-496.	4.0	36
118	Nonlocal Yang-Mills. Nuclear Physics B, 1992, 388, 81-112.	2.5	61
119	Mode analysis and Ward identities for perturbative quantum gravity in de Sitter space. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 1992, 292, 269-276.	4.1	45
120	Physical Green's functions in quantum gravity. Annals of Physics, 1992, 215, 96-155.	2.8	47
121	Nonlocal regularizations of gauge theories. Physical Review D, 1991, 43, 499-519.	4.7	99
122	A supersymmetric regulator. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 1991, 253, 331-334.	4.1	12
123	The problem of nonlocality in string theory. Nuclear Physics B, 1989, 325, 389-469.	2.5	246
124	Inferring closed string field theory from the on-shell effective action. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 1988, 213, 144-151.	4.1	11
125	New Exact Solutions for the Purely Cubic Bosonic String Field Theory. Physical Review Letters, 1988, 60, 261-264.	7.8	25
126	Closed from open strings in Witten's theory. Nuclear Physics B, 1987, 293, 612-684.	2.5	23



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127	The factor-ordering problem must be regulated. Physical Review D, 1987, 36, 3641-3650.	4.7	37
128	A world-sheet regularization for Witten's string field theory. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 1987, 196, 55-59.	4.1	11
129	The light-cone gauge $M\hat{\alpha}^i$ generator and invariant string field theory. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 1986, 176, 387-390.	4.1	0
130	No new physics in conformal scalar-metric theory. Annals of Physics, 1986, 168, 457-483.	2.8	22
131	The vierbein is irrelevant in perturbation theory. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 1984, 148, 440-444.	4.1	34