

# Luc Blanchet

## List of Publications by Year in descending order

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Version: 2024-02-01

72  
papers

8,120  
citations

41344

49  
h-index

74163

75  
g-index

75  
all docs

75  
docs citations

75  
times ranked

3004  
citing authors

#	ARTICLE	IF	CITATIONS
1	The quadrupole moment of compact binaries to the fourth post-Newtonian order: II. Dimensional regularization and renormalization. <i>Classical and Quantum Gravity</i> , 2022, 39, 115008.	4.0	11
2	Multipole expansion of gravitational waves: from harmonic to Bondi coordinates. <i>Journal of High Energy Physics</i> , 2021, 2021, 1.	4.7	23
3	The current-type quadrupole moment and gravitational-wave mode $(\hat{a}, m) = (2, 1)$ of compact binary systems at the third post-Newtonian order. <i>Classical and Quantum Gravity</i> , 2021, 38, 185004.	4.0	20
4	Exploring the foundations of the physical universe with space tests of the equivalence principle. <i>Experimental Astronomy</i> , 2021, 51, 1695-1736.	3.7	20
5	Logarithmic tail contributions to the energy function of circular compact binaries. <i>Physical Review D</i> , 2020, 101, .	4.7	26
6	Tidal effects in the gravitational-wave phase evolution of compact binary systems to next-to-next-to-leading post-Newtonian order. <i>Physical Review D</i> , 2020, 102, .	4.7	37
7	Tidal effects in the equations of motion of compact binary systems to next-to-next-to-leading post-Newtonian order. <i>Physical Review D</i> , 2020, 101, .	4.7	23
8	The mass quadrupole moment of compact binary systems at the fourth post-Newtonian order. <i>Classical and Quantum Gravity</i> , 2020, 37, 215006.	4.0	25
9	Hamiltonian for tidal interactions in compact binary systems to next-to-next-to-leading post-Newtonian order. <i>Physical Review D</i> , 2020, 102, .	4.7	7
10	Analytic approximations in GR and gravitational waves. <i>International Journal of Modern Physics D</i> , 2019, 28, 1930011.	2.1	5
11	Flux-balance equations for linear momentum and center-of-mass position of self-gravitating post-Newtonian systems. <i>Classical and Quantum Gravity</i> , 2019, 36, 085003.	4.0	21
12	Analyzing gravitational waves with general relativity. <i>Comptes Rendus Physique</i> , 2019, 20, 507-520.	0.9	11
13	Ambiguity-free completion of the equations of motion of compact binary systems at the fourth post-Newtonian order. <i>Physical Review D</i> , 2018, 97, .	4.7	84
14	Center-of-mass equations of motion and conserved integrals of compact binary systems at the fourth post-Newtonian order. <i>Physical Review D</i> , 2018, 97, .	4.7	62
15	Equations of motion of self-gravitating $N$ -body systems in the first post-Minkowskian approximation. <i>Physical Review D</i> , 2018, 98, .	4.7	25
16	Energy and periastron advance of compact binaries on circular orbits at the fourth post-Newtonian order. <i>Physical Review D</i> , 2017, 95, .	4.7	88
17	First law of compact binary mechanics with gravitational-wave tails. <i>Classical and Quantum Gravity</i> , 2017, 34, 164001.	4.0	21
18	Dimensional regularization of the IR divergences in the Fokker action of point-particle binaries at the fourth post-Newtonian order. <i>Physical Review D</i> , 2017, 96, .	4.7	42

#	ARTICLE	IF	CITATIONS
19	Dipolar dark matter as an effective field theory. <i>Physical Review D</i> , 2017, 96, .	4.7	10
20	Gravitational-wave tail effects to quartic non-linear order. <i>Classical and Quantum Gravity</i> , 2016, 33, 244003.	4.0	37
21	Fokker action of nonspinning compact binaries at the fourth post-Newtonian approximation. <i>Physical Review D</i> , 2016, 93, .	4.7	102
22	Analysis of Sun/Moon gravitational redshift tests with the STE-QUEST space mission. <i>Classical and Quantum Gravity</i> , 2016, 33, 035012.	4.0	39
23	Dipolar dark matter with massive bigravity. <i>Journal of Cosmology and Astroparticle Physics</i> , 2015, 2015, 026-026.	5.4	26
24	Dark matter via massive bigravity. <i>Physical Review D</i> , 2015, 91, .	4.7	37
25	Phenomenology of dark matter via a bimetric extension of general relativity. <i>Physical Review D</i> , 2015, 91, .	4.7	14
26	Non-linear multipole interactions and gravitational-wave octupole modes for inspiralling compact binaries to third-and-a-half post-Newtonian order. <i>Classical and Quantum Gravity</i> , 2015, 32, 045016.	4.0	50
27	Quantum tests of the Einstein Equivalence Principle with the STE-QUEST space mission. <i>Advances in Space Research</i> , 2015, 55, 501-524.	2.6	151
28	Gravitational Radiation from Post-Newtonian Sources and Inspiralling Compact Binaries. <i>Living Reviews in Relativity</i> , 2014, 17, 2.	26.7	1,053
29	Half-integral conservative post-Newtonian approximations in the redshift factor of black hole binaries. <i>Physical Review D</i> , 2014, 89, .	4.7	26
30	High-order half-integral conservative post-Newtonian coefficients in the redshift factor of black hole binaries. <i>Physical Review D</i> , 2014, 90, .	4.7	21
31	Next-to-next-to-leading order spin-orbit effects in the gravitational wave flux and orbital phasing of compact binaries. <i>Classical and Quantum Gravity</i> , 2013, 30, 135009.	4.0	118
32	The third and a half-post-Newtonian gravitational wave quadrupole mode for quasi-circular inspiralling compact binaries. <i>Classical and Quantum Gravity</i> , 2012, 29, 175004.	4.0	86
33	First law of binary black hole mechanics in general relativity and post-Newtonian theory. <i>Physical Review D</i> , 2012, 85, .	4.7	120
34	Modified gravity approach based on a preferred time foliation. <i>Physical Review D</i> , 2011, 84, .	4.7	29
35	Does an atom interferometer test the gravitational redshift at the Compton frequency?. <i>Classical and Quantum Gravity</i> , 2011, 28, 145017.	4.0	80
36	Post-Newtonian and numerical calculations of the gravitational self-force for circular orbits in the Schwarzschild geometry. <i>Physical Review D</i> , 2010, 81, .	4.7	86

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37	High-order post-Newtonian fit of the gravitational self-force for circular orbits in the Schwarzschild geometry. <i>Physical Review D</i> , 2010, 81, .	4.7	113
38	Dipolar dark matter and dark energy. <i>Physical Review D</i> , 2009, 80, .	4.7	64
39	Model of dark matter and dark energy based on gravitational polarization. <i>Physical Review D</i> , 2008, 78, .	4.7	66
40	The third post-Newtonian gravitational wave polarizations and associated spherical harmonic modes for inspiralling compact binaries in quasi-circular orbits. <i>Classical and Quantum Gravity</i> , 2008, 25, 165003.	4.0	192
41	Tail effects in the third post-Newtonian gravitational wave energy flux of compact binaries in quasi-elliptical orbits. <i>Physical Review D</i> , 2008, 77, .	4.7	73
42	Gravitational polarization and the phenomenology of MOND. <i>Classical and Quantum Gravity</i> , 2007, 24, 3529-3539.	4.0	69
43	Gravitational Recoil of Inspiring Black Hole Binaries to Second Post-Newtonian Order. <i>Astrophysical Journal</i> , 2005, 635, 508-515.	4.5	106
44	Dimensional regularization of the third post-Newtonian gravitational wave generation from two point masses. <i>Physical Review D</i> , 2005, 71, .	4.7	124
45	Hadamard regularization of the third post-Newtonian gravitational wave generation of two point masses. <i>Physical Review D</i> , 2005, 71, .	4.7	75
46	Structure of the post-Newtonian expansion in general relativity. <i>Physical Review D</i> , 2005, 72, .	4.7	43
47	Gravitational radiation reaction in the equations of motion of compact binaries to 3.5 post-Newtonian order. <i>Classical and Quantum Gravity</i> , 2005, 22, 1007-1031.	4.0	64
48	The 2.5PN gravitational wave polarizations from inspiralling compact binaries in circular orbits. <i>Classical and Quantum Gravity</i> , 2004, 21, 3771-3801.	4.0	138
49	Dimensional regularization of the third post-Newtonian dynamics of point particles in harmonic coordinates. <i>Physical Review D</i> , 2004, 69, .	4.7	191
50	Gravitational Radiation from Inspiring Compact Binaries Completed at the Third Post-Newtonian Order. <i>Physical Review Letters</i> , 2004, 93, 091101.	7.8	304
51	Third post-Newtonian dynamics of compact binaries: equations of motion in the centre-of-mass frame. <i>Classical and Quantum Gravity</i> , 2003, 20, 755-776.	4.0	147
52	Post-Newtonian approximation for isolated systems calculated by matched asymptotic expansions. <i>Physical Review D</i> , 2002, 65, .	4.7	72
53	Gravitational waves from inspiraling compact binaries: Energy flux to third post-Newtonian order. <i>Physical Review D</i> , 2002, 65, .	4.7	144
54	Gravitational-wave inspiral of compact binary systems to 7/2 post-Newtonian order. <i>Physical Review D</i> , 2002, 65, .	4.7	229

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55	Third post-Newtonian dynamics of compact binaries: Noetherian conserved quantities and equivalence between the harmonic-coordinate and ADM-Hamiltonian formalisms. <i>Classical and Quantum Gravity</i> , 2001, 18, 753-778.	4.0	160
56	General relativistic dynamics of compact binaries at the third post-Newtonian order. <i>Physical Review D</i> , 2001, 63, .	4.7	171
57	Hadamard regularization. <i>Journal of Mathematical Physics</i> , 2000, 41, 7675-7714.	1.1	105
58	Gravitational field and equations of motion of compact binaries to $5/2$ post-Newtonian order. <i>Physical Review D</i> , 1998, 58, .	4.7	146
59	On the multipole expansion of the gravitational field. <i>Classical and Quantum Gravity</i> , 1998, 15, 1971-1999.	4.0	117
60	Gravitational-wave tails of tails. <i>Classical and Quantum Gravity</i> , 1998, 15, 113-141.	4.0	137
61	Quadrupole-quadrupole gravitational waves. <i>Classical and Quantum Gravity</i> , 1998, 15, 89-111.	4.0	65
62	Gravitational radiation reaction and balance equations to post-Newtonian order. <i>Physical Review D</i> , 1997, 55, 714-732.	4.7	76
63	Gravitational waveforms from inspiralling compact binaries to second-post-Newtonian order. <i>Classical and Quantum Gravity</i> , 1996, 13, 575-584.	4.0	314
64	Energy losses by gravitational radiation in inspiraling compact binaries to $5/2$ post-Newtonian order. <i>Physical Review D</i> , 1996, 54, 1417-1438.	4.7	138
65	Gravitational waves from inspiralling compact binaries: Energy loss and waveform to second-post-Newtonian order. <i>Physical Review D</i> , 1995, 51, 5360-5386.	4.7	224
66	Second-post-Newtonian generation of gravitational radiation. <i>Physical Review D</i> , 1995, 51, 2559-2583.	4.7	118
67	Detecting a Tail Effect in Gravitational-Wave Experiments. <i>Physical Review Letters</i> , 1995, 74, 1067-1070.	7.8	98
68	Gravitational-Radiation Damping of Compact Binary Systems to Second Post-Newtonian Order. <i>Physical Review Letters</i> , 1995, 74, 3515-3518.	7.8	438
69	Time-asymmetric structure of gravitational radiation. <i>Physical Review D</i> , 1993, 47, 4392-4420.	4.7	90
70	Hereditary effects in gravitational radiation. <i>Physical Review D</i> , 1992, 46, 4304-4319.	4.7	291
71	Higher order gravitational radiation losses in binary systems. <i>Monthly Notices of the Royal Astronomical Society</i> , 1989, 239, 845-867.	4.4	118
72	Tail-transported temporal correlations in the dynamics of a gravitating system. <i>Physical Review D</i> , 1988, 37, 1410-1435.	4.7	229