

# Luc Blanchet

## List of Publications by Year in descending order

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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	Gravitational Radiation from Post-Newtonian Sources and Inspiralling Compact Binaries. Living Reviews in Relativity, 2014, 17, 2.	26.7	1,053
2	Gravitational-Radiation Damping of Compact Binary Systems to Second Post-Newtonian Order. Physical Review Letters, 1995, 74, 3515-3518.	7.8	438
3	Gravitational waveforms from inspiralling compact binaries to second-post-Newtonian order. Classical and Quantum Gravity, 1996, 13, 575-584.	4.0	314
4	Gravitational Radiation from Inspiralling Compact Binaries Completed at the Third Post-Newtonian Order. Physical Review Letters, 2004, 93, 091101.	7.8	304
5	Hereditary effects in gravitational radiation. Physical Review D, 1992, 46, 4304-4319.	4.7	291
6	Tail-transported temporal correlations in the dynamics of a gravitating system. Physical Review D, 1988, 37, 1410-1435.	4.7	229
7	Gravitational-wave inspiral of compact binary systems to 7/2 post-Newtonian order. Physical Review D, 2002, 65, .	4.7	229
8	Gravitational waves from inspiralling compact binaries: Energy loss and waveform to second-post-Newtonian order. Physical Review D, 1995, 51, 5360-5386.	4.7	224
9	The third post-Newtonian gravitational wave polarizations and associated spherical harmonic modes for inspiralling compact binaries in quasi-circular orbits. Classical and Quantum Gravity, 2008, 25, 165003.	4.0	192
10	Dimensional regularization of the third post-Newtonian dynamics of point particles in harmonic coordinates. Physical Review D, 2004, 69, .	4.7	191
11	General relativistic dynamics of compact binaries at the third post-Newtonian order. Physical Review D, 2001, 63, .	4.7	171
12	Third post-Newtonian dynamics of compact binaries: Noetherian conserved quantities and equivalence between the harmonic-coordinate and ADM-Hamiltonian formalisms. Classical and Quantum Gravity, 2001, 18, 753-778.	4.0	160
13	Quantum tests of the Einstein Equivalence Principle with the STE $\hat{e}$ QUEST space mission. Advances in Space Research, 2015, 55, 501-524.	2.6	151
14	Third post-Newtonian dynamics of compact binaries: equations of motion in the centre-of-mass frame. Classical and Quantum Gravity, 2003, 20, 755-776.	4.0	147
15	Gravitational field and equations of motion of compact binaries to 5/2 post-Newtonian order. Physical Review D, 1998, 58, .	4.7	146
16	Gravitational waves from inspiraling compact binaries: Energy flux to third post-Newtonian order. Physical Review D, 2002, 65, .	4.7	144
17	Energy losses by gravitational radiation in inspiraling compact binaries to 5/2 post-Newtonian order. Physical Review D, 1996, 54, 1417-1438.	4.7	138
18	The 2.5PN gravitational wave polarizations from inspiralling compact binaries in circular orbits. Classical and Quantum Gravity, 2004, 21, 3771-3801.	4.0	138

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19	Gravitational-wave tails of tails. <i>Classical and Quantum Gravity</i> , 1998, 15, 113-141.	4.0	137
20	Dimensional regularization of the third post-Newtonian gravitational wave generation from two point masses. <i>Physical Review D</i> , 2005, 71, .	4.7	124
21	First law of binary black hole mechanics in general relativity and post-Newtonian theory. <i>Physical Review D</i> , 2012, 85, .	4.7	120
22	Higher order gravitational radiation losses in binary systems. <i>Monthly Notices of the Royal Astronomical Society</i> , 1989, 239, 845-867.	4.4	118
23	Second-post-Newtonian generation of gravitational radiation. <i>Physical Review D</i> , 1995, 51, 2559-2583.	4.7	118
24	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
25	On the multipole expansion of the gravitational field. <i>Classical and Quantum Gravity</i> , 1998, 15, 1971-1999.	4.0	117
26	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
27	Gravitational Recoil of Inspiring Black Hole Binaries to Second Post-Newtonian Order. <i>Astrophysical Journal</i> , 2005, 635, 508-515.	4.5	106
28	Hadamard regularization. <i>Journal of Mathematical Physics</i> , 2000, 41, 7675-7714.	1.1	105
29	Fokker action of nonspinning compact binaries at the fourth post-Newtonian approximation. <i>Physical Review D</i> , 2016, 93, .	4.7	102
30	Detecting a Tail Effect in Gravitational-Wave Experiments. <i>Physical Review Letters</i> , 1995, 74, 1067-1070.	7.8	98
31	Time-asymmetric structure of gravitational radiation. <i>Physical Review D</i> , 1993, 47, 4392-4420.	4.7	90
32	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
33	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
34	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
35	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
36	Does an atom interferometer test the gravitational redshift at the Compton frequency?. <i>Classical and Quantum Gravity</i> , 2011, 28, 145017.	4.0	80

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37	Gravitational radiation reaction and balance equations to post-Newtonian order. <i>Physical Review D</i> , 1997, 55, 714-732.	4.7	76
38	Hadamard regularization of the third post-Newtonian gravitational wave generation of two point masses. <i>Physical Review D</i> , 2005, 71, .	4.7	75
39	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
40	Post-Newtonian approximation for isolated systems calculated by matched asymptotic expansions. <i>Physical Review D</i> , 2002, 65, .	4.7	72
41	Gravitational polarization and the phenomenology of MOND. <i>Classical and Quantum Gravity</i> , 2007, 24, 3529-3539.	4.0	69
42	Model of dark matter and dark energy based on gravitational polarization. <i>Physical Review D</i> , 2008, 78, .	4.7	66
43	Quadrupole-quadrupole gravitational waves. <i>Classical and Quantum Gravity</i> , 1998, 15, 89-111.	4.0	65
44	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
45	Dipolar dark matter and dark energy. <i>Physical Review D</i> , 2009, 80, .	4.7	64
46	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
47	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
48	Structure of the post-Newtonian expansion in general relativity. <i>Physical Review D</i> , 2005, 72, .	4.7	43
49	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
50	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
51	Dark matter via massive bigravity. <i>Physical Review D</i> , 2015, 91, .	4.7	37
52	Gravitational-wave tail effects to quartic non-linear order. <i>Classical and Quantum Gravity</i> , 2016, 33, 244003.	4.0	37
53	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
54	Modified gravity approach based on a preferred time foliation. <i>Physical Review D</i> , 2011, 84, .	4.7	29

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55	Half-integral conservative post-Newtonian approximations in the redshift factor of black hole binaries. <i>Physical Review D</i> , 2014, 89, .	4.7	26
56	Dipolar dark matter with massive bigravity. <i>Journal of Cosmology and Astroparticle Physics</i> , 2015, 2015, 026-026.	5.4	26
57	Logarithmic tail contributions to the energy function of circular compact binaries. <i>Physical Review D</i> , 2020, 101, .	4.7	26
58	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
59	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
60	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
61	Multipole expansion of gravitational waves: from harmonic to Bondi coordinates. <i>Journal of High Energy Physics</i> , 2021, 2021, 1.	4.7	23
62	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
63	First law of compact binary mechanics with gravitational-wave tails. <i>Classical and Quantum Gravity</i> , 2017, 34, 164001.	4.0	21
64	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
65	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
66	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
67	Phenomenology of dark matter via a bimetric extension of general relativity. <i>Physical Review D</i> , 2015, 91, .	4.7	14
68	Analyzing gravitational waves with general relativity. <i>Comptes Rendus Physique</i> , 2019, 20, 507-520.	0.9	11
69	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
70	Dipolar dark matter as an effective field theory. <i>Physical Review D</i> , 2017, 96, .	4.7	10
71	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
72	Analytic approximations in GR and gravitational waves. <i>International Journal of Modern Physics D</i> , 2019, 28, 1930011.	2.1	5