

# Luc Blanchet

## List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/7728115/publications.pdf>

Version: 2024-02-01

72  
papers

8,120  
citations

41258

49  
h-index

74018

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.                   | 1.5 | 11        |
| 2  | Multipole expansion of gravitational waves: from harmonic to Bondi coordinates. <i>Journal of High Energy Physics</i> , 2021, 2021, 1.   | 1.6 | 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. | 1.5 | 20        |
| 4  | Exploring the foundations of the physical universe with space tests of the equivalence principle. <i>Experimental Astronomy</i> , 2021, 51, 1695-1736.   | 1.6 | 20        |
| 5  | Logarithmic tail contributions to the energy function of circular compact binaries. <i>Physical Review D</i> , 2020, 101, .  | 1.6 | 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, .                                   | 1.6 | 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, .  | 1.6 | 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.  | 1.5 | 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, .  | 1.6 | 7         |
| 10 | Analytic approximations in GR and gravitational waves. <i>International Journal of Modern Physics D</i> , 2019, 28, 1930011.   | 0.9 | 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.                                  | 1.5 | 21        |
| 12 | Analyzing gravitational waves with general relativity. <i>Comptes Rendus Physique</i> , 2019, 20, 507-520.   | 0.3 | 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, .  | 1.6 | 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, .  | 1.6 | 62        |
| 15 | Equations of motion of self-gravitating $N$ -body systems in the first post-Minkowskian approximation. <i>Physical Review D</i> , 2018, 98, .  | 1.6 | 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, .  | 1.6 | 88        |
| 17 | First law of compact binary mechanics with gravitational-wave tails. <i>Classical and Quantum Gravity</i> , 2017, 34, 164001.  | 1.5 | 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, .                                  | 1.6 | 42        |

| #  | ARTICLE  | IF  | CITATIONS |
|----|--|-----|-----------|
| 19 | Dipolar dark matter as an effective field theory. <i>Physical Review D</i> , 2017, 96, .   | 1.6 | 10        |
| 20 | Gravitational-wave tail effects to quartic non-linear order. <i>Classical and Quantum Gravity</i> , 2016, 33, 244003.  | 1.5 | 37        |
| 21 | Fokker action of nonspinning compact binaries at the fourth post-Newtonian approximation. <i>Physical Review D</i> , 2016, 93, .   | 1.6 | 102       |
| 22 | Analysis of Sun/Moon gravitational redshift tests with the STE-QUEST space mission. <i>Classical and Quantum Gravity</i> , 2016, 33, 035012.   | 1.5 | 39        |
| 23 | Dipolar dark matter with massive bigravity. <i>Journal of Cosmology and Astroparticle Physics</i> , 2015, 2015, 026-026.   | 1.9 | 26        |
| 24 | Dark matter via massive bigravity. <i>Physical Review D</i> , 2015, 91, .  | 1.6 | 37        |
| 25 | Phenomenology of dark matter via a bimetric extension of general relativity. <i>Physical Review D</i> , 2015, 91, .  | 1.6 | 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. | 1.5 | 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.   | 1.2 | 151       |
| 28 | Gravitational Radiation from Post-Newtonian Sources and Inspiralling Compact Binaries. <i>Living Reviews in Relativity</i> , 2014, 17, 2.  | 8.2 | 1,053     |
| 29 | Half-integral conservative post-Newtonian approximations in the redshift factor of black hole binaries. <i>Physical Review D</i> , 2014, 89, .   | 1.6 | 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, .  | 1.6 | 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.                            | 1.5 | 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.                            | 1.5 | 86        |
| 33 | First law of binary black hole mechanics in general relativity and post-Newtonian theory. <i>Physical Review D</i> , 2012, 85, .   | 1.6 | 120       |
| 34 | Modified gravity approach based on a preferred time foliation. <i>Physical Review D</i> , 2011, 84, .  | 1.6 | 29        |
| 35 | Does an atom interferometer test the gravitational redshift at the Compton frequency?. <i>Classical and Quantum Gravity</i> , 2011, 28, 145017.  | 1.5 | 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, .  | 1.6 | 86        |

| #  | ARTICLE  | IF  | CITATIONS |
|----|--|-----|-----------|
| 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, .  | 1.6 | 113       |
| 38 | Dipolar dark matter and dark energy. <i>Physical Review D</i> , 2009, 80, .  | 1.6 | 64        |
| 39 | Model of dark matter and dark energy based on gravitational polarization. <i>Physical Review D</i> , 2008, 78, .   | 1.6 | 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. | 1.5 | 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, .   | 1.6 | 73        |
| 42 | Gravitational polarization and the phenomenology of MOND. <i>Classical and Quantum Gravity</i> , 2007, 24, 3529-3539.  | 1.5 | 69        |
| 43 | Gravitational Recoil of Inspiring Black Hole Binaries to Second Post-Newtonian Order. <i>Astrophysical Journal</i> , 2005, 635, 508-515.   | 1.6 | 106       |
| 44 | Dimensional regularization of the third post-Newtonian gravitational wave generation from two point masses. <i>Physical Review D</i> , 2005, 71, .   | 1.6 | 124       |
| 45 | Hadamard regularization of the third post-Newtonian gravitational wave generation of two point masses. <i>Physical Review D</i> , 2005, 71, .  | 1.6 | 75        |
| 46 | Structure of the post-Newtonian expansion in general relativity. <i>Physical Review D</i> , 2005, 72, .  | 1.6 | 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.   | 1.5 | 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.  | 1.5 | 138       |
| 49 | Dimensional regularization of the third post-Newtonian dynamics of point particles in harmonic coordinates. <i>Physical Review D</i> , 2004, 69, .   | 1.6 | 191       |
| 50 | Gravitational Radiation from Inspiring Compact Binaries Completed at the Third Post-Newtonian Order. <i>Physical Review Letters</i> , 2004, 93, 091101.  | 2.9 | 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.  | 1.5 | 147       |
| 52 | Post-Newtonian approximation for isolated systems calculated by matched asymptotic expansions. <i>Physical Review D</i> , 2002, 65, .  | 1.6 | 72        |
| 53 | Gravitational waves from inspiraling compact binaries: Energy flux to third post-Newtonian order. <i>Physical Review D</i> , 2002, 65, .   | 1.6 | 144       |
| 54 | Gravitational-wave inspiral of compact binary systems to 7/2 post-Newtonian order. <i>Physical Review D</i> , 2002, 65, .  | 1.6 | 229       |

| #  | ARTICLE  | IF  | CITATIONS |
|----|--|-----|-----------|
| 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. | 1.5 | 160       |
| 56 | General relativistic dynamics of compact binaries at the third post-Newtonian order. <i>Physical Review D</i> , 2001, 63, .  | 1.6 | 171       |
| 57 | Hadamard regularization. <i>Journal of Mathematical Physics</i> , 2000, 41, 7675-7714.   | 0.5 | 105       |
| 58 | Gravitational field and equations of motion of compact binaries to $5/2$ post-Newtonian order. <i>Physical Review D</i> , 1998, 58, .  | 1.6 | 146       |
| 59 | On the multipole expansion of the gravitational field. <i>Classical and Quantum Gravity</i> , 1998, 15, 1971-1999.   | 1.5 | 117       |
| 60 | Gravitational-wave tails of tails. <i>Classical and Quantum Gravity</i> , 1998, 15, 113-141.   | 1.5 | 137       |
| 61 | Quadrupole-quadrupole gravitational waves. <i>Classical and Quantum Gravity</i> , 1998, 15, 89-111.  | 1.5 | 65        |
| 62 | Gravitational radiation reaction and balance equations to post-Newtonian order. <i>Physical Review D</i> , 1997, 55, 714-732.  | 1.6 | 76        |
| 63 | Gravitational waveforms from inspiralling compact binaries to second-post-Newtonian order. <i>Classical and Quantum Gravity</i> , 1996, 13, 575-584.   | 1.5 | 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.  | 1.6 | 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.   | 1.6 | 224       |
| 66 | Second-post-Newtonian generation of gravitational radiation. <i>Physical Review D</i> , 1995, 51, 2559-2583.   | 1.6 | 118       |
| 67 | Detecting a Tail Effect in Gravitational-Wave Experiments. <i>Physical Review Letters</i> , 1995, 74, 1067-1070.   | 2.9 | 98        |
| 68 | Gravitational-Radiation Damping of Compact Binary Systems to Second Post-Newtonian Order. <i>Physical Review Letters</i> , 1995, 74, 3515-3518.  | 2.9 | 438       |
| 69 | Time-asymmetric structure of gravitational radiation. <i>Physical Review D</i> , 1993, 47, 4392-4420.  | 1.6 | 90        |
| 70 | Hereditary effects in gravitational radiation. <i>Physical Review D</i> , 1992, 46, 4304-4319.   | 1.6 | 291       |
| 71 | Higher order gravitational radiation losses in binary systems. <i>Monthly Notices of the Royal Astronomical Society</i> , 1989, 239, 845-867.  | 1.6 | 118       |
| 72 | Tail-transported temporal correlations in the dynamics of a gravitating system. <i>Physical Review D</i> , 1988, 37, 1410-1435.  | 1.6 | 229       |