Barry Wardell

List of Publications by Year
in descending order

48 papers	2,046 citations	257357 24 h-index	233338 45 g-index
49 all docs	49 docs citations	49 times ranked	1540 citing authors

#	Article	IF	Citations
1	Black holes, gravitational waves and fundamental physics: a roadmap. Classical and Quantum Gravity, 2019, 36, 143001.	1.5	451
2	Science with the space-based interferometer eLISA: Supermassive black hole binaries. Physical Review D, 2016, 93, .	1.6	321
3	Error-analysis and comparison to analytical models of numerical waveforms produced by the NRAR Collaboration. Classical and Quantum Gravity, 2013, 31, 025012.	1.5	123
4	Gravitational self-torque and spin precession in compact binaries. Physical Review D, 2014, 89, .	1.6	77
5	Analytical high-order post-Newtonian expansions for extreme mass ratio binaries. Physical Review D, 2015, 92, .	1.6	71
6	Second-Order Self-Force Calculation of Gravitational Binding Energy in Compact Binaries. Physical Review Letters, 2020, 124, 021101.	2.9	70
7	Tidal invariants for compact binaries on quasicircular orbits. Physical Review D, 2015, 91, .	1.6	60
8	Self-force calculations with matched expansions and quasinormal mode sums. Physical Review D, 2009, 79, .	1.6	50
9	Self-Consistent Orbital Evolution of a Particle around a Schwarzschild Black Hole. Physical Review Letters, 2012, 108, 191102.	2.9	50
10	High-order expansions of the Detweiler-Whiting singular field in Schwarzschild spacetime. Physical Review D, 2012, 86, .	1.6	47
11	Gravitational-Wave Energy Flux for Compact Binaries through Second Order in the Mass Ratio. Physical Review Letters, 2021, 127, 151102.	2.9	43
12	Analytical high-order post-Newtonian expansions for spinning extreme mass ratio binaries. Physical Review D, 2016, 93, .	1.6	40
13	Applying the effective-source approach to frequency-domain self-force calculations: Lorenz-gauge gravitational perturbations. Physical Review D, 2015, 92, .	1.6	39
14	Self-force via m-mode regularization and $2\mathbf{+}1\mathbf{D}$ evolution. II. Scalar-field implementation on Kerr spacetime. Physical Review D, 2011, 84, .	1.6	36
15	Self-force and Green function in Schwarzschild spacetime via quasinormal modes and branch cut. Physical Review D, 2013, 88, .	1.6	33
16	Spin-orbit precession along eccentric orbits for extreme mass ratio black hole binaries and its effective-one-body transcription. Physical Review D, 2017, 96, .	1.6	33
17	Self-force via Green functions and worldline integration. Physical Review D, 2014, 89, .	1.6	31
18	Second-order perturbation theory: The problem of infinite mode coupling. Physical Review D, 2016, 94, .	1.6	29

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19	Probing the nature of black holes: Deep in the mHz gravitational-wave sky. Experimental Astronomy, 2021, 51, 1385-1416.	1.6	29
20	Effective source approach to self-force calculations. Classical and Quantum Gravity, 2011, 28, 134010.	1.5	27
21	Applying the effective-source approach to frequency-domain self-force calculations. Physical Review D, 2014, 89, .	1.6	27
22	Padé approximants of the Green function in spherically symmetric spacetimes. Physical Review D, 2009, 79, .	1.6	26
23	High-order expansions of the Detweiler-Whiting singular field in Kerr spacetime. Physical Review D, 2014, 89, .	1.6	26
24	Transport equation approach to calculations of Hadamard Green functions and non-coincident DeWitt coefficients. Physical Review D, 2011, 84, .	1.6	25
25	Quasilocal contribution to the scalar self-force: Nongeodesic motion. Physical Review D, 2009, 79, .	1.6	24
26	Quasilocal contribution to the scalar self-force: Geodesic motion. Physical Review D, 2008, 77, .	1.6	23
27	Generic effective source for scalar self-force calculations. Physical Review D, 2012, 85, .	1.6	23
28	Octupolar invariants for compact binaries on quasicircular orbits. Physical Review D, 2015, 92, .	1.6	23
29	Dissipation in extreme mass-ratio binaries with a spinning secondary. Physical Review D, 2020, 102, .	1.6	22
30	Self-force: Computational Strategies. Fundamental Theories of Physics, 2015, , 487-522.	0.1	19
31	Self-force calculations with a spinning secondary. Physical Review D, 2022, 105, .	1.6	19
32	Scalar self-force for highly eccentric equatorial orbits in Kerr spacetime. Physical Review D, 2017, 95, .	1.6	17
33	Black Hole Perturbation Theory and Gravitational Self-Force. , 2021, , 1-119.		16
34	Accelerated motion and the self-force in Schwarzschild spacetime. Classical and Quantum Gravity, 2018, 35, 194001.	1.5	13
35	Gravitational backreaction on a cosmic string: Formalism. Physical Review D, 2019, 99, .	1.6	12
36	Gravitational Perturbations of Rotating Black Holes in Lorenz Gauge. Physical Review Letters, 2022, 128, 151101.	2.9	11

#	Article	IF	Citations
37	Gravitational self-force regularization in the Regge-Wheeler and easy gauges. Physical Review D, 2019, 99, .	1.6	10
38	Scalar self-force for eccentric orbits around a Schwarzschild black hole. Physical Review D, 2013, 88, .	1.6	9
39	Excitation of Kerr quasinormal modes in extreme-mass-ratio inspirals. Physical Review Research, 2020, 2, .	1.3	9
40	Hyperboloidal method for frequency-domain self-force calculations. Physical Review D, 2022, 105, .	1.6	8
41	Falloff of the Weyl scalars in binary black hole spacetimes. Physical Review D, 2011, 84, .	1.6	7
42	Regularized calculation of the retarded Green function in a Schwarzschild spacetime. Physical Review D, 2019, 100, .	1.6	6
43	Self-force on a scalar charge in a circular orbit about a Reissner-Nordström black hole. Physical Review D, 2018, 98, .	1.6	3
44	Separable electromagnetic perturbations of rotating black holes. Physical Review D, 2021, 103, .	1.6	3
45	Characteristic formulation of the Regge-Wheeler and Zerilli Green functions. Physical Review D, 2021, 103, .	1.6	3
46	Black Hole Perturbation Theory and Gravitational Self-Force. , 2022, , 1411-1529.		1
47	A TRANSPORT EQUATION APPROACH TO GREEN FUNCTIONS AND SELF-FORCE CALCULATIONS. , 2012, , .		0
48	METHOD OF MATCHED EXPANSIONS AND THE SINGULARITY STRUCTURE OF THE GREEN FUNCTION. , 2012, , .		0