Jan Steinhoff

List of Publications by Year
in descending order

57	3,013	136950 32	161849 54
papers	citations	h-index	g-index

57	57	57	1319
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Effects of Neutron-Star Dynamic Tides on Gravitational Waveforms within the Effective-One-Body Approach. Physical Review Letters, 2016, 116, 181101.	7.8	204
2	Dynamical tides in general relativity: Effective action and effective-one-body Hamiltonian. Physical Review D, 2016, 94, .	4.7	151
3	New Insights on the Matter-Gravity Coupling Paradigm. Physical Review Letters, 2012, 109, 021101.	7.8	124
4	Spinning gravitating objects in the effective field theory in the post-Newtonian scheme. Journal of High Energy Physics, 2015, 2015, 1.	4.7	123
5	Distinguishing boson stars from black holes and neutron stars from tidal interactions in inspiraling binary systems. Physical Review D, 2017, 96, .	4.7	119
6	Classical black hole scattering from a worldline quantum field theory. Journal of High Energy Physics, 2021, 2021, 1.	4.7	119
7	Energetics of two-body Hamiltonians in post-Minkowskian gravity. Physical Review D, 2019, 99, .	4.7	107
8	Spin-squared Hamiltonian of next-to-leading order gravitational interaction. Physical Review D, 2008, 78, .	4.7	97
9	Classical Gravitational Bremsstrahlung from a Worldline Quantum Field Theory. Physical Review Letters, 2021, 126, 201103.	7.8	96
10	Next-to-leading order gravitational spin(1)-spin(2) dynamics in Hamiltonian form. Physical Review D, 2008, 77, .	4.7	93
11	ADM canonical formalism for gravitating spinning objects. Physical Review D, 2008, 77, .	4.7	92
12	Equivalence of ADM Hamiltonian and Effective Field Theory approaches at next-to-next-to-leading order spin1-spin2 coupling of binary inspirals. Journal of Cosmology and Astroparticle Physics, 2014, 2014, 003-003.	5.4	91
13	Spinning-black-hole scattering and the test-black-hole limit at second post-Minkowskian order. Physical Review D, 2019, 99, .	4.7	91
14	<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:mi>I</mml:mi><mml:mtext>â^'</mml:mtext><mml:mi>Q</mml:mi></mml:mrow></mml:math>Rela for Rapidly Rotating Neutron Stars. Physical Review Letters, 2014, 112, .	7.8	89
15	Leading order finite size effects with spins for inspiralling compact binaries. Journal of High Energy Physics, 2015, 2015, 1.	4.7	78
16	Multipolar equations of motion for extended test bodies in general relativity. Physical Review D, 2010, 81, .	4.7	77
17	Next-to-next-to-leading order gravitational spin-squared potential via the effective field theory for spinning objects in the post-Newtonian scheme. Journal of Cosmology and Astroparticle Physics, 2016, 2016, 008-008.	5.4	72
18	Effective action of dilaton gravity as the classical double copy of Yang-Mills theory. Physical Review D, 2019, 99, .	4.7	71

#	Article	IF	Citations
19	Next-to-next-to-leading order gravitational spin-orbit coupling via the effective field theory for spinning objects in the post-Newtonian scheme. Journal of Cosmology and Astroparticle Physics, 2016, 2016, 011-011.	5.4	70
20	Gravitational Bremsstrahlung and Hidden Supersymmetry of Spinning Bodies. Physical Review Letters, 2022, 128, 011101.	7.8	70
21	The reduced Hamiltonian for next-to-leading-order spin-squared dynamics of general compact binaries. Classical and Quantum Gravity, 2010, 27, 135007.	4.0	62
22	Influence of internal structure on the motion of test bodies in extreme mass ratio situations. Physical Review D, 2012, 86, .	4.7	60
23	Nextâ€toâ€nextâ€toâ€leading order postâ€Newtonian linearâ€inâ€spin binary Hamiltonians. Annalen Der Physik, 2013, 525, 359-394.	2.4	52
24	SUSY in the sky with gravitons. Journal of High Energy Physics, 2022, 2022, 1.	4.7	51
25	Canonical Hamiltonian for an extended test body in curved spacetime: To quadratic order in spin. Physical Review D, 2016, 93, .	4.7	47
26	Breakdown of the classical double copy for the effective action of dilaton-gravity at NNLO. Physical Review D, 2019, 100, .	4.7	44
27	Canonical formulation of self-gravitating spinning-object systems. Europhysics Letters, 2009, 87, 50004.	2.0	38
28	Gravitational Spin-Orbit Coupling through Third-Subleading Post-Newtonian Order: From First-Order Self-Force to Arbitrary Mass Ratios. Physical Review Letters, 2020, 125, 011103.	7.8	37
29	Gravitational spin-orbit and aligned <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:msub><mml:mrow><mml:mi>spin</mml:mi></mml:mrow><mml:mrow><mml:mn>1</mml:mn><mml:m couplings through third-subleading post-Newtonian orders. Physical Review D, 2020, 102, .	4.7	35
30	Spin effects on neutron star fundamental-mode dynamical tides: Phenomenology and comparison to numerical simulations. Physical Review Research, 2021, 3, .	3.6	35
31	Quasicircular inspirals and plunges from nonspinning effective-one-body Hamiltonians with gravitational self-force information. Physical Review D, 2020, 101, .	4.7	34
32	Conservative and radiative dynamics in classical relativistic scattering and bound systems. Physical Review Research, 2022, 4, .	3.6	34
33	Hairy binary black holes in Einstein-Maxwell-dilaton theory and their effective-one-body description. Physical Review D, 2018, 98, .	4.7	31
34	Effective action and linear response of compact objects in Newtonian gravity. Physical Review D, 2013, 88, .	4.7	30
35	Radiation-reaction force and multipolar waveforms for eccentric, spin-aligned binaries in the effective-one-body formalism. Physical Review D, 2021, 104, .	4.7	30
36	Complete conservative dynamics for inspiralling compact binaries with spins at the fourth post-Newtonian order. Journal of Cosmology and Astroparticle Physics, 2021, 2021, 029.	5.4	29

#	Article	IF	Citations
37	Spin-multipole effects in binary black holes and the test-body limit. Physical Review D, 2018, 97, .	4.7	28
38	Effective action model of dynamically scalarizing binary neutron stars. Physical Review D, 2017, 96, .	4.7	26
39	EFTofPNG: a package for high precision computation with the effective field theory of post-Newtonian gravity. Classical and Quantum Gravity, 2017, 34, 244001.	4.0	26
40	Hamiltonians and canonical coordinates for spinning particles in curved space-time. Classical and Quantum Gravity, 2019, 36, 075003.	4.0	26
41	Comment on two recent papers regarding next-to-leading order spin-spin effects in gravitational interaction. Physical Review D, 2009, 80, .	4.7	22
42	Canonical formulation of gravitating spinning objects at 3.5 post-Newtonian order. Physical Review D, 2010, 81, .	4.7	22
43	Next-to-leading order spin-orbit and spin(a)-spin(b) Hamiltonians forngravitating spinning compact objects. Physical Review D, 2011, 83, .	4.7	22
44	Elimination of the spin supplementary condition in the effective field theory approach to the post-Newtonian approximation. Annals of Physics, 2012, 327, 1494-1537.	2.8	20
45	Leading-order spin-orbit and spin(1)-spin(2) radiation-reaction Hamiltonians. Physical Review D, 2011, 84, .	4.7	19
46	Theory-agnostic framework for dynamical scalarization of compact binaries. Physical Review D, 2019, 100, .	4.7	18
47	Relativistic effective action of dynamical gravitomagnetic tides for slowly rotating neutron stars. Physical Review Research, 2021, 3, .	3.6	17
48	Tidal response from scattering and the role of analytic continuation. Physical Review D, 2021, 104, .	4.7	17
49	Fourth post-Newtonian effective-one-body Hamiltonians with generic spins. Physical Review D, 2020, 101, .	4.7	16
50	Gravitational waves from spinning binary black holes at the leading post-Newtonian orders at all orders in spin. Physical Review D, 2018, 97, .	4.7	15
51	Spin and Quadrupole Contributions to the Motion of Astrophysical Binaries. Fundamental Theories of Physics, 2015, , 615-649.	0.3	15
52	Canonical angles in a compact binary star system with spinning components: Approximative solution through next-to-leading-order spin-orbit interaction for circular orbits. Physical Review D, 2013, 87, .	4.7	11
53	Detweilerâ€™s redshift invariant for extended bodies orbiting a Schwarzschild black hole. Physical Review D, 2020, 102, .	4.7	8
54	High-accuracy simulations of highly spinning binary neutron star systems. Physical Review D, 2022, 105, .	4.7	2

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55	Spin effects on the dynamics of compact binaries. , 2017, , .		0
56	A High-Energy Take on Black Hole Encounters. Physics Magazine, 0, 13, .	0.1	0
57	Gravitational waves from spinning binary black holes at the leading post-Newtonian orders at all orders in spin. , 2022, , .		0