Fabio Caruso

List of Publications by Year
in descending order

Source: https://exaly.com/author-pdf/2389306/publications.pdf

Version: 2024-02-01

38 papers	1,887 citations	257450 24 h-index	377865 34 g-index
38 all docs	38 docs citations	38 times ranked	1689 citing authors

#	Article	IF	Citations
1	GW100: Benchmarking G₀W₀ for Molecular Systems. Journal of Chemical Theory and Computation, 2015, 11, 5665-5687.	5.3	280
2	Unified description of ground and excited states of finite systems: The self-consistent<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:mi>G</mml:mi><mml:mi>W</mml:mi></mml:mrow></mml:math>approach. Physical Review B, 2012, 86, .	3.2	171
3	Benchmark of<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:mi>G</mml:mi><mml:mi>W</mml:mi></mml:mrow></mml:math>methods for azabenzenes. Physical Review B, 2012, 86, .	3.2	154
4	Self-consistent<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:mi>G</mml:mi><mml:mi>W</mml:mi></mml:mrow></mml:math>: All-electron implementation with localized basis functions. Physical Review B, 2013, 88, .	3.2	135
5	Origin of the crossover from polarons to Fermi liquids in transition metal oxides. Nature Communications, 2017, 8, 15769.	12.8	122
6	Hybrid density functional theory meets quasiparticle calculations: A consistent electronic structure approach. Physical Review B, 2013, 88, .	3.2	115
7	Benchmark of GW Approaches for the GW100 Test Set. Journal of Chemical Theory and Computation, 2016, 12, 5076-5087.	5.3	95
8	Bond Breaking and Bond Formation: How Electron Correlation is Captured in Many-Body Perturbation Theory and Density-Functional Theory. Physical Review Letters, 2013, 110, 146403.	7.8	82
9	Band Structures of Plasmonic Polarons. Physical Review Letters, 2015, 114, 146404.	7.8	57
10	Static correlation and electron localization in molecular dimers from the self-consistent RPA and<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:mi>G</mml:mi><mml:mi>W</mml:mi></mml:mrow></mml:n Physical Review B, 2015, 91, .	3.2	54
11	Beyond the<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:mi>G</mml:mi><mml:mi>W</mml:mi></mml:mrow></mml:m A second-order screened exchange correction. Physical Review B, 2015, 92, .	3.2	49
12	First-principles description of charge transfer in donor-acceptor compounds from self-consistent many-body perturbation theory. Physical Review B, 2014, 90, .	3.2	44
13	Theory of electron-plasmon coupling in semiconductors. Physical Review B, 2016, 94, .	3.2	36
14	On the combined use of GW approximation and cumulant expansion in the calculations of quasiparticle spectra: The paradigm of Si valence bands. Physical Review B, 2016, 94, .	3.2	36
15	Nonadiabatic Kohn Anomaly in Heavily Boron-Doped Diamond. Physical Review Letters, 2017, 119, 017001.	7.8	36
16	Nonequilibrium Lattice Dynamics in Monolayer MoS₂. Journal of Physical Chemistry Letters, 2021, 12, 1734-1740.	4.6	36
17	Static Friction on the Fly: Velocity Depinning Transitions of Lubricants in Motion. Physical Review Letters, 2007, 99, 206101.	7.8	33
18	Crossover from lattice to plasmonic polarons of a spin-polarised electron gas in ferromagnetic EuO. Nature Communications, 2018, 9, 2305.	12.8	31

#	Article	IF	Citations
19	Excitons in one-dimensional van der Waals materials:<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:msub><mml:mi>Sb</mml:mi><mml:mn>2</mml:mn></mml:msub><mml:msub><mml:mi mathvariant="normal">S</mml:mi><mml:mn>3</mml:mn></mml:msub></mml:mrow></mml:math>nanoribbons. Physical Review B, 2015, 92, .	3.2	30
20	Electron-plasmon and electron-phonon satellites in the angle-resolved photoelectron spectra of <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mi>n</mml:mi></mml:math> -doped anatase <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:msub><mml:mi>TiO</mml:mi><mml:mn>2</mml:mn></mml:msub></mml:math> Physical Review B, 2018, 97, .	3.2	27
21	Piecewise linearity in the<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:mi>G</mml:mi><mml:mi>W</mml:mi></mml:mrow></mml:math> for accurate quasiparticle energy predictions. Physical Review B, 2016, 93, .	3.2	26
22	Ultrafast Hot Phonon Dynamics in <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:msub><mml:mrow><mml:mi>MgB</mml:mi></mml:mrow><mml:mrow><mml:mn>2</mml:mn></mml:mrow></mml:msub></mml:mrow></mml:math> Driven by Anisotropic Electron-Phonon Coupling. Physical Review Letters, 2020, 124, 077001.	7.8	26
23	Accessing the Anisotropic Nonthermal Phonon Populations in Black Phosphorus. Nano Letters, 2021, 21, 6171-6178.	9.1	25
24	Spectral fingerprints of electron-plasmon coupling. Physical Review B, 2015, 92, .	3.2	24
25	Photoemission signatures of nonequilibrium carrier dynamics from first principles. Physical Review B, 2020, 101, .	3.2	23
26	The GW plus cumulant method and plasmonic polarons: application to the homogeneous electron gas*. European Physical Journal B, 2016, 89, 1.	1.5	20
27	Thermally enhanced FrÃ¶hlich coupling in SnSe. Physical Review B, 2019, 99, .	3.2	19
28	Direct View of Phonon Dynamics in Atomically Thin MoS₂. Nano Letters, 2022, 22, 4718-4724.	9.1	19
29	Efficient First-Principles Methodology for the Calculation of the All-Phonon Inelastic Scattering in Solids. Physical Review Letters, 2021, 127, 207401.	7.8	18
30	Multiphonon diffuse scattering in solids from first principles: Application to layered crystals and two-dimensional materials. Physical Review B, 2021, 104, .	3.2	16
31	Two-dimensional plasmonic polarons in <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mi>n</mml:mi></mml:math> -doped monolayer <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:msub><mml:mrow><mml:mi>MoS</mml:mi></mml:mrow><mml:mrow><mml:mn>2</mml:mn></mml:mrow></mml:msub></mml:math> Physical Review B, 2021, 103, .	3.2	13
32	Chirality of Valley Excitons in Monolayer Transition-Metal Dichalcogenides. Journal of Physical Chemistry Letters, 0, , 5894-5899.	4.6	11
33	Phonon-assisted damping of plasmons in three- and two-dimensional metals. Physical Review B, 2018, 97, .	3.2	9
34	Properties and challenges of hot-phonon physics in metals: MgB2 and other compounds. Progress in Surface Science, 2022, 97, 100664.	8.3	8
35	Hybrid excitations at the interface between a <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:msub><mml:mi>MoS</mml:mi><mml:mn>2</mml:mn></mml:msub></mml:math> monolayer and organic molecules: A first-principles study. Physical Review Materials, 2022, 6, .	2.4	6
36	Many-Body Calculations of Plasmon and Phonon Satellites in Angle-Resolved Photoelectron Spectra Using the Cumulant Expansion Approach. , 2020, , 341-365.		1

#	Article	IF	Citations
37	Publisherâ€™s Note: Static Friction on the Fly: Velocity Depinning Transitions of Lubricants in Motion [Phys. Rev. Lett.99, 206101 (2007)]. Physical Review Letters, 2007, 99, .	7.8	0
38	Many-Body Calculations of Plasmon and Phonon Satellites in Angle-Resolved Photoelectron Spectra Using the Cumulant Expansion Approach. , 2018, , 1-25.		0