Paola Gori-Giorgi

List of Publications by Year
in descending order

79 papers	2,843 citations	172457 29 h-index	175258 52 g-index
85 all docs	85 docs citations	85 times ranked	1113 citing authors

#	Article	IF	Citations
1	Correlation Energy and Spin Polarization in the 2D Electron Gas. Physical Review Letters, 2002, 88, 256601.	7.8	366
2	Analytic static structure factors and pair-correlation functions for the unpolarized homogeneous electron gas. Physical Review B, 2000, 61, 7353-7363.	3.2	178
3	A short-range gradient-corrected spin density functional in combination with long-range coupled-cluster methods: Application to alkali-metal rare-gas dimers. Chemical Physics, 2006, 329, 276-282.	1.9	133
4	Strictly correlated electrons in density-functional theory: A general formulation with applications to spherical densities. Physical Review A, 2007, 75, .	2.5	126
5	Optimal-transport formulation of electronic density-functional theory. Physical Review A, 2012, 85, .	2.5	101
6	Local-spin-density functional for multideterminant density functional theory. Physical Review B, 2006, 73, .	3.2	98
7	Strong Correlation in Kohn-Sham Density Functional Theory. Physical Review Letters, 2012, 109, 246402.	7.8	89
8	Density-Functional Theory for Strongly Interacting Electrons. Physical Review Letters, 2009, 103, 166402.	7.8	83
9	Electronic Zero-Point Oscillations in the Strong-Interaction Limit of Density Functional Theory. Journal of Chemical Theory and Computation, 2009, 5, 743-753.	5.3	79
10	Pair distribution function of the spin-polarized electron gas:â€ƒA first-principles analytic model for all uniform densities. Physical Review B, 2002, 66, .	3.2	76
11	Short-range correlation in the uniform electron gas: Extended Overhauser model. Physical Review B, 2001, 64, .	3.2	72
12	Properties of short-range and long-range correlation energy density functionals from electron-electron coalescence. Physical Review A, 2006, 73, .	2.5	60
13	Density functional theory for strongly-interacting electrons: perspectives for physics and chemistry. Physical Chemistry Chemical Physics, 2010, 12, 14405.	2.8	60
14	Momentum distribution of the uniform electron gas: Improved parametrization and exact limits of the cumulant expansion. Physical Review B, 2002, 66, .	3.2	57
15	Pair-distribution functions of the two-dimensional electron gas. Physical Review B, 2004, 70, .	3.2	47
16	A short-range correlation energy density functional with multi-determinantal reference. Theoretical Chemistry Accounts, 2005, 114, 305-308.	1.4	45
17	Energy Densities in the Strong-Interaction Limit of Density Functional Theory. Journal of Chemical Theory and Computation, 2012, 8, 3097-3107.	5.3	43
18	Kohn-Sham density functional theory for quantum wires in arbitrary correlation regimes. Physical Review B, 2013, 87, .	3.2	43

#	Article	IF	Citations
19	Study of the discontinuity of the exchangeâ€correlation potential in an exactly soluble case. International Journal of Quantum Chemistry, 2009, 109, 2410-2415.	2.0	40
20	Exchangeâ€“Correlation Functionals via Local Interpolation along the Adiabatic Connection. Journal of Chemical Theory and Computation, 2016, 12, 2598-2610.	5.3	40
21	Simple model for the spherically and system-averaged pair density: Results for two-electron atoms. Physical Review A, 2005, 71, .	2.5	38
22	Wigner localization in quantum dots from Kohn-Sham density functional theory without symmetry breaking. Physical Review B, 2014, 89, .	3.2	34
23	Interaction-Strength Interpolation Method for Main-Group Chemistry: Benchmarking, Limitations, and Perspectives. Journal of Chemical Theory and Computation, 2016, 12, 4885-4896.	5.3	34
24	Uniform electron gas from the Colle-Salvetti functional: Missing long-range correlations. Physical Review A, 2001, 63, .	2.5	31
25	Hydrogen Molecule Dissociation Curve with Functionals Based on the Strictly Correlated Regime. Journal of Chemical Theory and Computation, 2015, 11, 3153-3162.	5.3	31
26	System-adapted correlation energy density functionals from effective pair interactions. Philosophical Magazine, 2006, 86, 2643-2659.	1.6	30
27	Exchangeâ€“correlation functionals from the strong interaction limit of DFT: applications to model chemical systems. Physical Chemistry Chemical Physics, 2014, 16, 14551-14558.	2.8	30
28	Simple Fully Nonlocal Density Functionals for Electronic Repulsion Energy. Journal of Physical Chemistry Letters, 2017, 8, 2799-2805.	4.6	30
29	Strictly correlated uniform electron droplets. Physical Review B, 2011, 83, .	3.2	29
30	Local density functional for the short-range part of the electron-electron interaction. Physical Review B, 2004, 70, .	3.2	28
31	Interpolated energy densities, correlation indicators and lower bounds from approximations to the strong coupling limit of DFT. Physical Chemistry Chemical Physics, 2017, 19, 6169-6183.	2.8	28
32	Assessment of interaction-strength interpolation formulas for gold and silver clusters. Journal of Chemical Physics, 2018, 148, 134106.	3.0	28
33	Spin resolution of the electron-gas correlation energy:â€ƒPositive same spin contributions. Physical Review B, 2004, 69, .	3.2	27
34	Electron avoidance: A nonlocal radius for strong correlation. Physical Review A, 2014, 90, .	2.5	26
35	Restoring Size Consistency of Approximate Functionals Constructed from the Adiabatic Connection. Journal of Physical Chemistry Letters, 2018, 9, 3137-3142.	4.6	26
36	Investigation of the Exchange-Correlation Potentials of Functionals Based on the Adiabatic Connection Interpolation. Journal of Chemical Theory and Computation, 2019, 15, 1006-1015.	5.3	26

#	Article	IF	Citations
37	Derivative Discontinuity in the Strong-Interaction Limit of Density-Functional Theory. Physical Review Letters, 2013, 111, 126402.	7.8	25
38	Communication: Strong-interaction limit of an adiabatic connection in Hartree-Fock theory. Journal of Chemical Physics, 2018, 149, 241101.	3.0	25
39	Asymptotic behaviour of the electron density and the Kohnâ€“Sham potential in case of a Kohnâ€“Sham HOMO nodal plane. Molecular Physics, 2016, 114, 1086-1097.	1.7	23
40	Challenging the Liebâ€“Oxford bound in a systematic way. Molecular Physics, 2016, 114, 1076-1085.	1.7	22
41	Augmented potential, energy densities, and virial relations in the weak- and strong-interaction limits of DFT. Journal of Chemical Physics, 2017, 147, 214107.	3.0	22
42	Simple physical picture of the Overhauser screened electron-electron interaction. Physical Review B, 2004, 69, .	3.2	21
43	Scaling relations, virial theorem, and energy densities for long-range and short-range density functionals. International Journal of Quantum Chemistry, 2006, 106, 2026-2034.	2.0	21
44	Anomalous scaling and breakdown of conventional density functional theory methods for the description of Mott phenomena and stretched bonds. Physical Review B, 2016, 94, .	3.2	21
45	Response Potential in the Strong-Interaction Limit of Density Functional Theory: Analysis and Comparison with the Coupling-Constant Average. Journal of Chemical Theory and Computation, 2018, 14, 4151-4167.	5.3	21
46	Energy density functionals from the strong-coupling limit applied to the anions of the He isoelectronic series. Journal of Chemical Physics, 2014, 140, 18A532.	3.0	19
47	Fermionic Statistics in the Strongly Correlated Limit of Density Functional Theory. Journal of Chemical Theory and Computation, 2017, 13, 6089-6100.	5.3	19
48	Intracule densities in the strong-interaction limit of density functional theory. Physical Chemistry Chemical Physics, 2008, 10, 3440.	2.8	17
49	Large coupling-strength expansion of the MÃ¸llerâ€“Plesset adiabatic connection: From paradigmatic cases to variational expressions for the leading terms. Journal of Chemical Physics, 2020, 153, 214112.	3.0	16
50	Noncovalent Interactions from Models for the MÃ¸llerâ€“Plesset Adiabatic Connection. Journal of Physical Chemistry Letters, 2021, 12, 4867-4875.	4.6	15
51	Charge density reconstitution from approximate exchange-correlation holes. Canadian Journal of Chemistry, 2009, 87, 1444-1450.	1.1	14
52	Density-Functional Theory for Strongly Correlated Bosonic and Fermionic Ultracold Dipolar and Ionic Gases. Physical Review Letters, 2015, 115, 033006.	7.8	14
53	Two-dimensional electron gas: Correlation energy versus density and spin polarization. International Journal of Quantum Chemistry, 2003, 91, 126-130.	2.0	13
54	Adiabatic connection at negative coupling strengths. Physical Review A, 2010, 81, .	2.5	13

#	Article	IF	Citations
55	The adiabatic strictly-correlated-electrons functional: kernel and exact properties. Physical Chemistry Chemical Physics, 2016, 18, 21092-21101.	2.8	13
56	Local and global interpolations along the adiabatic connection of DFT: a study at different correlation regimes. Theoretical Chemistry Accounts, 2018, 137, 166.	1.4	13
57	Asymptotic nodal planes in the electron density and the potential in the effective equation for the square root of the density. European Physical Journal B, 2018, 91, 1.	1.5	13
58	Gradient Expansions for the Large-Coupling Strength Limit of the MÃ¸llerâ€“Plesset Adiabatic Connection. Journal of Chemical Theory and Computation, 2022, 18, 1584-1594.	5.3	11
59	Range separation combined with the Overhauser model: Application to the H₂ molecule along the dissociation curve. International Journal of Quantum Chemistry, 2009, 109, 1950-1961.	2.0	10
60	MAP: An MP2 Accuracy Predictor for Weak Interactions from Adiabatic Connection Theory. Journal of Chemical Theory and Computation, 2020, 16, 4141-4149.	5.3	10
61	A Variational Approach to London Dispersion Interactions without Density Distortion. Journal of Physical Chemistry Letters, 2019, 10, 1537-1541.	4.6	9
62	Kinetic Correlation Functionals from the Entropic Regularization of the Strictly Correlated Electrons Problem. Journal of Chemical Theory and Computation, 2020, 16, 488-498.	5.3	9
63	Functional derivative of the zero-point-energy functional from the strong-interaction limit of density-functional theory. Physical Review A, 2019, 99, .	2.5	7
64	Exchange-Correlation Energy Densities and Response Potentials: Connection between Two Definitions and Analytical Model for the Strong-Coupling Limit of a Stretched Bond. Journal of Physical Chemistry A, 2020, 124, 2473-2482.	2.5	7
65	Correlation energy, pair-distribution functions and static structure factors of jellium. Physica A: Statistical Mechanics and Its Applications, 2000, 280, 199-205.	2.6	6
66	Variations of the Hartreeâ€“Fock fractional-spin error for one electron. Journal of Chemical Physics, 2021, 155, 054107.	3.0	6
67	Kohnâ€“Sham equations with functionals from the strictly-correlated regime: investigation with a spectral renormalization method. Journal of Physics Condensed Matter, 2020, 32, 475602.	1.8	6
68	High-Density Limit of Two-Electron Systems:â€‰ Results from the Extended Overhauser Approach. Journal of Chemical Theory and Computation, 2007, 3, 796-802.	5.3	5
69	London dispersion forces without density distortion: a path to first principles inclusion in density functional theory. Faraday Discussions, 2020, 224, 145-165.	3.2	4
70	Sum-rules of the response potential in the strongly-interacting limit of DFT. European Physical Journal B, 2018, 91, 1.	1.5	3
71	Uniform Electron Gas from Two-Particle Wavefunctions. , 2002, , 379-387.		3
72	Strong correlation in density functional theory: general discussion. Faraday Discussions, 2020, 224, 373-381.	3.2	2

#	Article	IF	Citations
73	New approaches to study excited states in density functional theory: general discussion. Faraday Discussions, 2020, 224, 483-508.	3.2	2
74	New density-functional approximations and beyond: general discussion. Faraday Discussions, 2020, 224, 166-200.	3.2	1
75	Dispersion without Many-Body Density Distortion: Assessment on Atoms and Small Molecules. Journal of Chemical Theory and Computation, 2021, 17, 2283-2293.	5.3	1
76	Model static structure factors and pair-correlation functions for the unpolarized homogeneous electron gas. AIP Conference Proceedings, 2001, , .	0.4	0
77	Foreword for special issue of Molecular Physics in honour of Andreas Savin. Molecular Physics, 2016, 114, 909-909.	1.7	0
78	Density Functional Theory for Strongly-Interacting Electrons. Letters in Mathematical Physics, 2014, , 153-168.	0.6	0
79	Correction to â€œExchangeâ€“Correlation Energy Densities and Response Potentials: Connection between Two Definitions and Analytical Model for the Strong-Coupling Limit of a Stretched Bondâ€• Journal of Physical Chemistry A, 2020, 124, 9895-9895.	2.5	0