Lucia Reining

List of Publications by Year
in descending order

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Version: 2024-02-01

68	9,311	87888 38	95266 68
papers	citations	h-index	g-index

70	70	70	6597
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Delocalization of dark and bright excitons in flat-band materials and the optical properties of V2O5. Npj Computational Materials, 2022, 8, .	8.7	2
2	Connector theory for reusing model results to determine materials properties. Npj Computational Materials, 2022, 8, .	8.7	2
3	First-principles study of excitons in optical spectra of silver chloride. Physical Review B, 2021, 104, .	3.2	3
4	New density-functional approximations and beyond: general discussion. Faraday Discussions, 2020, 224, 166-200.	3.2	1
5	New approaches to study excited states in density functional theory: general discussion. Faraday Discussions, 2020, 224, 483-508.	3.2	2
6	Unraveling intrinsic correlation effects with angle-resolved photoemission spectroscopy. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 28596-28602.	7.1	18
7	Insights into one-body density matrices using deep learning. Faraday Discussions, 2020, 224, 265-291.	3.2	3
8	Strategies to build functionals of the density, or functionals of Greenâ€™s functions: what can we learn?. Faraday Discussions, 2020, 224, 27-55.	3.2	3
9	Design of auxiliary systems for spectroscopy. Faraday Discussions, 2020, 224, 424-447.	3.2	1
10	Correlation satellites in optical and loss spectra. Physical Review Research, 2020, 2, .	3.6	8
11	Nonlinear response in the cumulant expansion for core-level photoemission. Physical Review Research, 2020, 2, .	3.6	9
12	Excitons on a microscopic level: The mixed dynamic structure factor. Physical Review Research, 2019, 1, .	3.6	5
13	Many-body perturbation theory and non-perturbative approaches: screened interaction as the key ingredient. Journal of Physics Condensed Matter, 2018, 30, 135602.	1.8	8
14	Nonlocal and Nonadiabatic Effects in the Charge-Density Response of Solids: A Time-Dependent Density-Functional Approach. Physical Review Letters, 2018, 120, 166402.	7.8	16
15	Cumulant Green's function calculations of plasmon satellites in bulk sodium: Influence of screening and the crystal environment. Physical Review B, 2018, 97, .	3.2	21
16	The GW approximation: content, successes and limitations. Wiley Interdisciplinary Reviews: Computational Molecular Science, 2018, 8, e1344.	14.6	138
17	Quasiparticles and phonon satellites in spectral functions of semiconductors and insulators: Cumulants applied to the full first-principles theory and the FrÃ¶hlich polaron. Physical Review B, 2018, 97, .	3.2	60
18	Variations on the â€œexact factorizationâ€•theme. European Physical Journal B, 2018, 91, 1.	1.5	11

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19	Spectroscopy of the Hubbard dimer: the spectral potential. European Physical Journal B, 2018, 91, 1.	1.5	11
20	Self-consistent Dyson equation and self-energy functionals: An analysis and illustration on the example of the Hubbard atom. Physical Review B, 2017, 96, .	3.2	33
21	Photoemission spectra from reduced density matrices: The band gap in strongly correlated systems. Physical Review B, 2016, 94, .	3.2	20
22	Ab initioelectronic stopping power of protons in bulk materials. Physical Review B, 2016, 93, .	3.2	40
23	Exciton Band Structure in Two-Dimensional Materials. Physical Review Letters, 2016, 116, 066803.	7.8	112
24	Electron-hole interactions in correlated electron materials: Optical properties of vanadium dioxide from first principles. Physical Review B, 2015, 91, .	3.2	21
25	Dynamical effects in electron spectroscopy. Journal of Chemical Physics, 2015, 143, 184109.	3.0	57
26	Effects of Low-Energy Excitations on Spectral Properties at Higher Binding Energy: The Metal-Insulator Transition ofVO2. Physical Review Letters, 2015, 114, 116402.	7.8	18
27	Estimating Excitonic Effects in the Absorption Spectra of Solids: Problems and Insight from a Guided Iteration Scheme. Physical Review Letters, 2015, 114, 146402.	7.8	56
28	Solution to the many-body problem in one point. New Journal of Physics, 2014, 16, 113025.	2.9	18
29	Nanometric Resolved Luminescence in h-BN Flakes: Excitons and Stacking Order. ACS Photonics, 2014, 1, 857-862.	6.6	80
30	Multiple satellites in materials with complex plasmon spectra: From graphite to graphene. Physical Review B, 2014, 89, .	3.2	38
31	Role of localized electrons in electron-hole interaction: The case of SrTiO<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msub><mml:mrow /><mml:mn>3</mml:mn></mml:msub></mml:math>. Physical Review B, 2013, 87, .	3.2	41
32	Approximations for many-body Green's functions: insights from the fundamental equations. New Journal of Physics, 2012, 14, 013056.	2.9	31
33	Beyond the<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>approximation: Combining correlation channels. Physical Review B, 2012, 85, .	3.2	69
34	Valence Electron Photoemission Spectrum of Semiconductors:AbÂInitioDescription of Multiple Satellites. Physical Review Letters, 2011, 107, 166401.	7.8	120
35	First-principles study of the band structure and optical absorption of CuGaS<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msub><mml:mrow /><mml:mn>2</mml:mn></mml:msub></mml:math>. Physical Review B, 2011, 84, .	3.2	74
36	Dynamical response function in sodium studied by inelastic x-ray scattering spectroscopy. Physical Review B, 2011, 84, .	3.2	27

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37	Dynamical response function in sodium and aluminum from time-dependent density-functional theory. Physical Review B, 2011, 84, .	3.2	37
38	Dynamic structure factor and dielectric function of silicon for finite momentum transfer: Inelastic x-ray scattering experiments and<i>ab initio</i>calculations. Physical Review B, 2010, 81, .	3.2	50
39	<i>Ab initio</i>calculations of electronic excitations: Collapsing spectral sums. Physical Review B, 2010, 82, .	3.2	81
40	Strong Interplay between Structure and Electronic Properties in<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mi>CuIn</mml:mi><mml:mo stretchy="false">(</mml:mo><mml:mi) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 622 Td (mathvariant="bold">S</mml:mi><mml:mo>,</mm Physical Review Letters, 2010, 104, 056401.	7.8	133
41	Valence-band electronic structure of<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:msub><mml:mtext>V</mml:mtext><mml:mn>2</mml:mn></mml:msub><mml:msub><mml:mtext Identification of V and O bands. Physical Review B, 2009, 80, .	3.2	25
42	Linear Plasmon Dispersion in Single-Wall Carbon Nanotubes and the Collective Excitation Spectrum of Graphene. Physical Review Letters, 2008, 100, 196803.	7.8	211
43	Transforming Nonlocality into a Frequency Dependence: A Shortcut to Spectroscopy. Physical Review Letters, 2007, 99, 057401.	7.8	39
44	Understanding Correlations in Vanadium Dioxide from First Principles. Physical Review Letters, 2007, 99, 266402.	7.8	198
45	Time-dependent density-functional theory for extended systems. Reports on Progress in Physics, 2007, 70, 357-407.	20.1	201
46	Effect of self-consistency on quasiparticles in solids. Physical Review B, 2006, 74, .	3.2	230
47	Signatures of Short-Range Many-Body Effects in the Dielectric Function of Silicon for Finite Momentum Transfer. Physical Review Letters, 2006, 97, 237602.	7.8	40
48	Exchange and Correlation Effects in Electronic Excitations ofCu2O. Physical Review Letters, 2006, 97, 267601.	7.8	114
49	TDDFT from molecules to solids: The role of long-range interactions. International Journal of Quantum Chemistry, 2005, 102, 684-701.	2.0	65
50	Many-Body Perturbation Theory Using the Density-Functional Concept: Beyond theGWApproximation. Physical Review Letters, 2005, 94, 186402.	7.8	126
51	Energy dependence of the exchange-correlation kernel of time-dependent density functional theory: A simple model for solids. Physical Review B, 2005, 72, .	3.2	54
52	Ab initioand semiempirical dielectric response of superlattices. Physical Review B, 2004, 70, .	3.2	24
53	Ab initiostudy of the optical absorption and wave-vector-dependent dielectric response of graphite. Physical Review B, 2004, 69, .	3.2	175
54	Long-range contribution to the exchange-correlation kernel of time-dependent density functional theory. Physical Review B, 2004, 69, .	3.2	184

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55	Electronic structure and electron energy-loss spectroscopy ofZrO2zirconia. Physical Review B, 2004, 70, .	3.2	145
56	Optical and Loss Spectra of Carbon Nanotubes: Depolarization Effects and Intertube Interactions. Physical Review Letters, 2003, 91, 046402.	7.8	174
57	Long-range behavior and frequency dependence of exchange-correlation kernels in solids. Physical Review B, 2003, 67, .	3.2	51
58	Parameter-Free Calculation of Response Functions in Time-Dependent Density-Functional Theory. Physical Review Letters, 2003, 91, 056402.	7.8	159
59	Local Field Effects in the Electron Energy Loss Spectra of RutileTiO2. Physical Review Letters, 2002, 88, 037601.	7.8	86
60	Electronic excitations: density-functional versus many-body Greenâ€™s-function approaches. Reviews of Modern Physics, 2002, 74, 601-659.	45.6	3,375
61	Excitonic Effects in Solids Described by Time-Dependent Density-Functional Theory. Physical Review Letters, 2002, 88, 066404.	7.8	282
62	Ab InitioCalculations of the Anisotropic Dielectric Tensor ofGaAs/AlAsSuperlattices. Physical Review Letters, 2002, 89, 216803.	7.8	35
63	Anisotropy and Interplane Interactions in the Dielectric Response of Graphite. Physical Review Letters, 2002, 89, 076402.	7.8	119
64	Nonlocal density scheme for electronic-structure calculations. Physical Review B, 1999, 60, 11329-11335.	3.2	16
65	Ab InitioCalculation of Excitonic Effects in the Optical Spectra of Semiconductors. Physical Review Letters, 1998, 80, 4510-4513.	7.8	803
66	Ab InitioCalculations of the Quasiparticle and Absorption Spectra of Clusters: The Sodium Tetramer. Physical Review Letters, 1995, 75, 818-821.	7.8	265
67	GWÎ“ approximation for electron self-energies in semiconductors and insulators. Physical Review B, 1994, 49, 8024-8028.	3.2	141
68	Model dielectric function for semiconductors. Physical Review B, 1993, 47, 9892-9895.	3.2	137