Silvio A Vitiello

List of Publications by Year
in descending order

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58 papers	804 citations	623734 14 h-index	526287 27 g-index
58 all docs	58 docs citations	58 times ranked	262 citing authors

#	Article	IF	Citations
1	Finite-range effects in the unitary Fermi polaron. Physical Review A, 2021, 104, .	2.5	10
2	Zero-range Fermi gas along the BCS-BEC crossover. Physical Review A, 2019, 100, .	2.5	3
3	Kinetic energy of fermionic systems. Physical Review B, 2019, 99, .	3.2	2
4	Properties of the superfluid in the disordered Bose-Hubbard model. Physical Review A, 2018, 98, .	2.5	8
5	Ground-State Properties of Unitary Bosons: From Clusters to Matter. Physical Review Letters, 2017, 119, 223002.	7.8	24
6	Properties of heavy rare-gases adlayers on graphene substrates. Surface Science, 2017, 655, 39-48.	1.9	6
7	Solid<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mmultiscripts><mml:mi>He</mml:mi><mml:mprescripts /><mml:none /><mml:mn>4</mml:mn></mml:mmultiscripts></mml:math>and the diffusion Monte Carlo method: A study of their properties. Physical Review E, 2017, 96, 043306.	2.1	1
8	Vortex line in the unitary Fermi gas. Physical Review A, 2016, 93, .	2.5	7
9	Contact interaction in a unitary ultracold Fermi gas. Physical Review A, 2015, 92, .	2.5	11
10	Monte Carlo Calculations for Fermi Gases in the Unitary Limit with a Zero-Range Interaction. Journal of Low Temperature Physics, 2015, 180, 168-179.	1.4	10
11	Elastic Anomalies of Crystalline 4He at T=0. Journal of Low Temperature Physics, 2013, 173, 143-151.	1.4	2
12	Effects of a 3He impurity on the Elastic Anomalies of 4He at T=0. Journal of Low Temperature Physics, 2013, 171, 315-321.	1.4	1
13	Publisherâ€™s Note: Elastic constants of hcp4He: Path-integral Monte Carlo results versus experiment [Phys. Rev. B84, 094119 (2011)]. Physical Review B, 2012, 85, .	3.2	0
14	Helium Atoms Kinetic Energy at Temperature T=0. Journal of Low Temperature Physics, 2011, 162, 154-159.	1.4	4
15	Efficient implementation of the Hellmannâ€“Feynman theorem in a diffusion Monte Carlo calculation. Journal of Chemical Physics, 2011, 134, 054102.	3.0	2
16	Elastic constants of hcp<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msup><mml:mrow /><mml:mn>4</mml:mn></mml:msup></mml:math>He: Path-integral Monte Carlo results versus experiment. Physical Review B, 2011, 84, .	3.2	10
17	An initial value representation for the coherent state propagator with complex trajectories. Chemical Physics, 2010, 370, 42-50.	1.9	13
18	Dislocation Mobility in a Quantum Crystal: The Case of Solid<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mmultiscripts><mml:mi>He</mml:mi><mml:mprescripts /><mml:none /><mml:mn>4</mml:mn></mml:mmultiscripts></mml:math>. Physical Review Letters, 2010, 104, 085301.	7.8	19

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19	Zero-point divacancy concentration in the shadow wave function model for solid<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:mmultiscripts><mml:mtext>H</mml:mtext><mml:mprescripts /><mml:none /><mml:mn>4</mml:mn></mml:mmultiscripts><mml:mtext>e</mml:mtext></mml:mrow></mml:math>. Physical Review B, 2009, 80, .	3.2	9
20	Zero-Point Vacancy Concentration inÂaÂModel Quantum Solid: AÂReversible-Work Approach. Journal of Statistical Physics, 2009, 134, 769-780.	1.2	3
21	Three-body interactions in the condensed phases of helium atom systems. Journal of Physics Condensed Matter, 2007, 19, 116212.	1.8	5
22	Quantum Monte Carlo Simulations of Solid 4He. Lecture Notes in Computer Science, 2006, , 40-52.	1.3	2
23	ANALYSIS OF AN INTERATOMIC POTENTIAL FOR THE CONDENSED PHASES OF HELIUM. , 2006, , .		0
24	Interatomic potential for the condensed phases of helium atoms. Physical Review B, 2006, 73, .	3.2	8
25	ANALYSIS OF AN INTERATOMIC POTENTIAL FOR THE CONDENSED PHASES OF HELIUM. International Journal of Modern Physics B, 2006, 20, 5103-5106.	2.0	1
26	ANALYSIS OF THE INTERATOMIC POTENTIAL OF THE HELIUM SYSTEMS. International Journal of Modern Physics B, 2006, 20, 2682-2686.	2.0	0
27	Ab initiotwo-body potentials and the properties of condensed phases of helium atoms. Physical Review B, 2005, 71, .	3.2	10
28	Quantum linear mutual information and classical correlations in globally pure bipartite systems. Physica A: Statistical Mechanics and Its Applications, 2004, 338, 458-470.	2.6	23
29	Analysis of the contributions of three-body potentials in the equation of state of 4He. Journal of Chemical Physics, 2003, 119, 8482-8491.	3.0	15
30	Spin-orbit induced backflow in neutron matter with auxiliary field diffusion Monte Carlo method. Physical Review C, 2003, 67, .	2.9	15
31	Relative stability of hcp and fcc crystalline structures of4He. Physical Review B, 2002, 65, .	3.2	5
32	Variational methods for4Heusing a modern He-He potential. Physical Review B, 1999, 60, 12342-12348.	3.2	13
33	Coherent State Wave Function for Systems with Spin-Dependent Correlations. Physical Review Letters, 1997, 78, 1846-1849.	7.8	3
34	Possible equivalence of Feynman's backflow and spin-dependent correlations. Physical Review B, 1997, 55, 5647-5650.	3.2	9
35	Vortex line in superfluidHe4: A variational Monte Carlo calculation. Physical Review B, 1996, 54, 1205-1212.	3.2	21
36	A study of spin dependent correlations and Feynmanâ€™s backflow. European Physical Journal D, 1996, 46, 267-268.	0.4	1

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37	Coherent state wavefunction for spin-dependent systems. European Physical Journal D, 1996, 46, 269-270.	0.4	1
38	Excitation spectrum of a3He impurity in superfluid4He. European Physical Journal D, 1996, 46, 295-296.	0.4	3
39	Shadow wave function for liquid and solidHe3. Physical Review B, 1996, 53, 15129-15135.	3.2	65
40	Variational theory of rotons in superfluid4He. Journal of Low Temperature Physics, 1995, 101, 755-760.	1.4	18
41	Excitations and static correlations in superfluid4He. Journal of Physics Condensed Matter, 1994, 6, A221-A224.	1.8	0
42	Trial shadow wave function for the ground state ofHe4. Physical Review B, 1994, 50, 13577-13593.	3.2	64
43	Excitations in superfluid 4He and the condensate. Physica B: Condensed Matter, 1994, 197, 189-197.	2.7	9
44	A self-bound wavefunction for clusters of4He. Physica B: Condensed Matter, 1994, 194-196, 523-524.	2.7	4
45	An improved shadow wavefunction for bulk He-4. Physica B: Condensed Matter, 1994, 194-196, 525-526.	2.7	2
46	Vortex line in superfluid4He. Physica B: Condensed Matter, 1994, 194-196, 699-700.	2.7	4
47	Recent progress in the theory of rotons in superfluid4He. Journal of Low Temperature Physics, 1993, 93, 879-892.	1.4	13
48	Shadow Density Matrix for Superfluid 4 He and the Static Structure Factor. Europhysics Letters, 1993, 21, 679-684.	2.0	4
49	Optimization ofHe4wave functions for the liquid and solid phases. Physical Review B, 1992, 46, 5442-5447.	3.2	32
50	Rotons and properties of superfluidHe4. Physical Review Letters, 1992, 69, 2098-2101.	7.8	23
51	Density matrix of superfluid4He and temperature dependence of the static structure factor. Journal of Low Temperature Physics, 1992, 89, 335-344.	1.4	2
52	A study of the liquid phase of4He using an improved shadow wave function. Journal of Low Temperature Physics, 1992, 89, 433-436.	1.4	8
53	Excited states inHe4described by a shadow wave function. Physical Review Letters, 1991, 67, 1446-1449.	7.8	36
54	Greenâ€™s-function Monte Carlo algorithm for the solution of the SchrÃ¶dinger equation with the shadow wave function. Physical Review B, 1991, 44, 7373-7377.	3.2	6

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55	Shadow wave-function variational calculations of crystalline and liquid phases ofHe4. Physical Review B, 1990, 42, 228-239.	3.2	46
56	A New Approach to Excited States in 4He: Rotons and Vortices. , 1990, , 141-149.		1
57	Variational Calculations for Solid and LiquidHe4with a "Shadow" Wave Function. Physical Review Letters, 1988, 60, 1970-1972.	7.8	187
58	Structure of the Wave Function of Crystalline 4He. Springer Proceedings in Physics, 1988, , 172-178.	0.2	0