

# S Fantoni

## List of Publications by Year in descending order

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39  
h-index

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78  
g-index

120  
all docs

120  
docs citations

120  
times ranked

1942  
citing authors

#	ARTICLE	IF	CITATIONS
1	Determination of the finite temperature equation of state of dense matter. Physics of Atomic Nuclei, 2012, 75, 866-869.	0.1	2
2	Microscopic calculation of the equation of state of nuclear matter and neutron star structure. Monthly Notices of the Royal Astronomical Society: Letters, 2010, 404, L35-L39.	1.2	60
3	Equation of state of low-density neutron matter, and the pairing gap. Physical Review C, 2009, 80, .	1.1	56
4	Quantum Monte Carlo calculation of the equation of state of neutron matter. Physical Review C, 2009, 79, .	1.1	148
5	Equation of State of Superfluid Neutron Matter and the Calculation of the Pairing Gap. Physical Review Letters, 2008, 101, 132501.	2.9	88
6	QUANTUM MONTE CARLO CALCULATIONS FOR NUCLEI AND NUCLEAR MATTER. , 2008, , .		0
7	Auxiliary Field Diffusion Monte Carlo Calculation of Nuclei with Tensor Interactions. Physical Review Letters, 2007, 99, 022507.	2.9	40
8	Neutrino opacity in cold neutron matter. Physics of Atomic Nuclei, 2006, 69, 1962-1966.	0.1	0
9	Auxiliary field diffusion Monte Carlo calculation of properties of oxygen isotopes. Physical Review C, 2006, 73, .	1.1	26
10	STABILITY AND SPECTRA OF SMALL ${}^3\text{He}$ - ${}^4\text{He}$ CLUSTERS. International Journal of Modern Physics B, 2006, 20, 5071-5080.	1.0	0
11	The spectra of mixed ${}^3\text{He}$ - ${}^4\text{He}$ droplets. Journal of Chemical Physics, 2005, 123, 054503.	1.2	9
12	Quantum Monte Carlo Algorithm Based on Two-Body Density Functional Theory for Fermionic Many-Body Systems: Application to ${}^3\text{He}$ . Physical Review Letters, 2004, 93, 170202.	2.9	22
13	Excitation spectra of a ${}^3\text{He}$ impurity on ${}^4\text{He}$ clusters. Physical Review A, 2004, 70, .	1.0	7
14	Hadron multiplicity in semi-inclusive lepton-nucleon and lepton-nucleus scattering. European Physical Journal A, 2004, 19, 147-151.	1.0	2
15	Auxiliary field diffusion Monte Carlo calculation of ground state properties of neutron drops. Nuclear Physics A, 2004, 742, 255-268.	0.6	38
16	Constrained path calculations of the ${}^4\text{He}$ and ${}^{16}\text{O}$ nuclei. European Physical Journal A, 2003, 17, 469-473.	1.0	2
17	Final-state interactions in the response of nuclear matter. Physical Review C, 2003, 67, .	1.1	14
18	Spin-orbit induced backflow in neutron matter with auxiliary field diffusion Monte Carlo method. Physical Review C, 2003, 67, .	1.1	15

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19	Deuteron distribution in nuclei and the Levinger's factor. Physical Review C, 2003, 67, .	1.1	5
20	Neutron matter at zero temperature with an auxiliary field diffusion Monte Carlo method. Physical Review C, 2003, 68, .	1.1	78
21	The polarization energy of normal liquid $^3\text{He}$ . Molecular Physics, 2003, 101, 1705-1711.	0.8	11
22	Number-conserving model for boson pairing. Physical Review A, 2002, 66, .	1.0	6
23	THE NUCLEAR MANY-BODY PROBLEM. Series on Advances in Quantum Many-body Theory, 2002, , 379-406.	0.2	0
24	$Q^2$ -dependence of backward pion multiplicity in neutrino-nucleus interactions. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2002, 527, 73-79.	1.5	3
25	Deuteron distribution in nuclear matter. Nuclear Physics A, 2002, 703, 70-82.	0.6	4
26	Nuclear structure functions and off-shell corrections. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2001, 502, 69-73.	1.5	4
27	Fermi hypernetted chain calculations in a periodic box. Nuclear Physics A, 2001, 690, 456-470.	0.6	22
28	A CONSTRAINED PATH MONTE CARLO METHOD FOR NUCLEON SYSTEMS. International Journal of Modern Physics B, 2001, 15, 1510-1518.	1.0	2
29	Ambiguities in the Implementation of the Impulse Approximation for the Response of Many-Fermion Systems. Physical Review Letters, 2001, 87, 052501.	2.9	22
30	Spin Susceptibility of Neutron Matter at Zero Temperature. Physical Review Letters, 2001, 87, .	2.9	116
31	A new quantum Monte Carlo method for nucleon systems. Progress in Particle and Nuclear Physics, 2000, 44, 63-73.	5.6	6
32	Kinematical $Q^2$ -dependence of nuclear deep inelastic scattering. Nuclear Physics A, 2000, 663-664, 385c-388c.	0.6	0
33	Josephson Effects in Dilute Bose-Einstein Condensates. Physical Review Letters, 2000, 84, 4521-4524.	2.9	135
34	Bose-condensate tunneling dynamics: Momentum-shortened pendulum with damping. Physical Review A, 1999, 60, 487-493.	1.0	82
35	BOSON JOSEPHSON JUNCTION WITH TRAPPED ATOMS. International Journal of Modern Physics B, 1999, 13, 633-641.	1.0	1
36	A quantum Monte Carlo method for nucleon systems. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 1999, 446, 99-103.	1.5	149

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37	Coherent oscillations between two weakly coupled Bose-Einstein condensates: Josephson effects, oscillations, and macroscopic quantum self-trapping. <i>Physical Review A</i> , 1999, 59, 620-633.	1.0	829
38	Variational theory of bulk $^4\text{He}$ with shadow wave functions: Ground state and the phonon-maxon-roton spectrum. <i>Physical Review B</i> , 1998, 58, 909-924.	1.1	53
39	$Q^2$ dependence of deep inelastic lepton scattering off nuclear targets. <i>Physical Review C</i> , 1998, 57, 1532-1535.	1.1	4
40	Fermi-hypernetted-chain study of unprojected wave functions to describe the half-filled state of the fractional quantum Hall effect. <i>Physical Review B</i> , 1998, 58, 7898-7905.	1.1	19
41	Deep-inelastic response of liquid helium. <i>Physical Review B</i> , 1998, 58, 11607-11612.	1.1	7
42	Variational study of vacancies in solid $^4\text{He}$ with shadow wave functions. <i>Physical Review B</i> , 1997, 56, 5909-5917.	1.1	45
43	Variational study of a $^3\text{He}$ impurity and of a vacancy in solid $^4\text{He}$ . <i>Physical Review B</i> , 1997, 55, 3122-3127.	1.1	7
44	Hypernetted-chain treatment and the extended shadow wave functions for fractional quantum Hall hierarchical states. <i>Physical Review B</i> , 1997, 55, 13739-13744.	1.1	10
45	Coherent State Wave Function for Systems with Spin-Dependent Correlations. <i>Physical Review Letters</i> , 1997, 78, 1846-1849.	2.9	3
46	Application of Fermi-hypernetted-chain theory to composite-fermion quantum Hall states. <i>Physical Review B</i> , 1997, 56, 13290-13295.	1.1	24
47	Multiple hadron production in electron scattering off nuclear targets. <i>Physical Review C</i> , 1997, 55, 244-252.	1.1	12
48	Possible equivalence of Feynman's backflow and spin-dependent correlations. <i>Physical Review B</i> , 1997, 55, 5647-5650.	1.1	9
49	Quantum Coherent Atomic Tunneling between Two Trapped Bose-Einstein Condensates. <i>Physical Review Letters</i> , 1997, 79, 4950-4953.	2.9	1,121
50	Consistent treatment of color transparency effects in diffractive electroproduction of vector mesons off nuclei. <i>Journal of Experimental and Theoretical Physics</i> , 1997, 84, 421-431.	0.2	6
51	Application of the Fermi Hypernetted-Chain theory and Effective Correlation Factor method for Laughlin quantum Hall states. <i>Journal of Low Temperature Physics</i> , 1997, 108, 357-371.	0.6	10
52	$Q^2$ -dependence of semi-inclusive electron-nucleus scattering and nucleon-nucleon correlations. <i>Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics</i> , 1997, 415, 311-314.	1.5	1
53	A study of spin dependent correlations and Feynman's backflow. <i>European Physical Journal D</i> , 1996, 46, 267-268.	0.4	1
54	Coherent state wavefunction for spin-dependent systems. <i>European Physical Journal D</i> , 1996, 46, 269-270.	0.4	1

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55	Quantum theory of solid-liquid coexistence and interface in $^4\text{He}$ . European Physical Journal D, 1996, 46, 277-278.	0.4	1
56	Model calculations of doubly closed shell nuclei in CBF theory III. $jj$ coupling and isospin dependence. Nuclear Physics A, 1996, 605, 359-386.	0.6	62
57	Path integral variational methods for strongly correlated systems. Physical Review C, 1996, 54, 1622-1635.	1.1	3
58	Shadow wave function for liquid and solid $^3\text{He}$ . Physical Review B, 1996, 53, 15129-15135.	1.1	65
59	A new hypernetted-chain treatment for Laughlin quantum Hall states. Europhysics Letters, 1996, 36, 663-668.	0.7	17
60	Microscopic theory of the liquid-solid interface of $^4\text{He}$ . Journal of Low Temperature Physics, 1995, 101, 543-548.	0.6	6
61	Inclusive cross section ratios at $x > 1$ . Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 1995, 343, 47-52.	1.5	22
62	The longitudinal asymmetry of the $(e, e'p)$ missing momentum distribution as a signal of color transparency. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 1995, 358, 191-196.	1.5	4
63	Higher-order effects in inclusive electron-nucleus scattering. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 1995, 359, 8-12.	1.5	25
64	Nuclear Effects in the Diffractive Electroproduction of $\pi^+$ Mesons. Physical Review Letters, 1995, 74, 3565-3568.	2.9	10
65	Homogeneous nucleation of crystalline order in superdense liquid $^4\text{He}$ . Physical Review B, 1995, 52, 7564-7571.	1.1	18
66	Optimization of Three-Body Correlations in Liquid Helium. Europhysics Letters, 1995, 30, 93-98.	0.7	11
67	Variational calculations for $^3\text{He}$ impurities on $^4\text{He}$ droplets. Physical Review B, 1994, 49, 15253-15257.	1.1	22
68	Fermi-hypernetted-chain scheme for Gutzwiller correlated wave functions. Physical Review B, 1994, 49, 10027-10030.	1.1	3
69	Quantum theory of solid-liquid coexistence and interface in $^4\text{He}$ . Physical Review Letters, 1994, 72, 2589-2592.	2.9	47
70	Model calculations of doubly closed shell nuclei in CBF theory. Nuclear Physics A, 1994, 568, 73-89.	0.6	38
71	Variational Monte Carlo calculations for solid-liquid coexistence and interface in $^4\text{He}$ with shadow wave function. Physica B: Condensed Matter, 1994, 194-196, 967-968.	1.3	4
72	Spectral function of medium-heavy nuclei and electron scattering. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 1994, 323, 267-272.	1.5	42

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73	Spectral function of finite nuclei and scattering of GeV electrons. Nuclear Physics A, 1994, 579, 493-517.	0.6	248
74	Correlated basis function results for the Argonne models of nuclear matter. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 1993, 298, 263-266.	1.5	27
75	Variational methods for nuclear systems with dynamical mesons. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 1993, 314, 260-264.	1.5	3
76	Color transparency and correlation effects in quasielastic electron-nucleus scattering at high momentum transfer. Physical Review Letters, 1992, 69, 881-884.	2.9	53
77	Fermi hypernetted-chain theory for correlated spin-density-wave states. Physical Review B, 1992, 46, 8894-8905.	1.1	6
78	Model calculations of doubly closed shell nuclei in CBF theory (I). Nuclear Physics A, 1992, 549, 439-460.	0.6	44
79	Nuclear-matter green functions in correlated-basis theory. Nuclear Physics A, 1992, 550, 201-222.	0.6	71
80	HNC Theory for Shadow Wave Functions. , 1992, , 233-244.		0
81	Scattering of GeV electrons by nuclear matter. Physical Review C, 1991, 44, 2328-2342.	1.1	123
82	Correlated-basis-function method for fermions on a lattice: The one-dimensional Hubbard model. Physical Review B, 1990, 41, 11479-11493.	1.1	15
83	Correlated Spin-Density-Wave Theory. , 1990, , 203-208.		1
84	Fermi Hyper-Netted Chain Theory on a Lattice: The Hubbard Model. , 1990, , 297-313.		1
85	Microscopic calculation of the longitudinal response of nuclear matter. Nuclear Physics A, 1989, 503, 375-403.	0.6	77
86	Spin-dependent correlations in the ground state of liquidHe3. Physical Review B, 1988, 38, 4523-4539.	1.1	84
87	Orthogonalization of correlated states. Physical Review C, 1988, 37, 1697-1707.	1.1	42
88	Correlated basis theory of nuclear matter response functions. Nuclear Physics A, 1987, 473, 234-266.	0.6	104
89	Structure functions and correlations in nuclei. Nuclear Physics A, 1987, 473, 267-289.	0.6	87
90	Microscopic calculations of the excitation spectrum of oneHe3impurity in liquidHe4. Physical Review B, 1986, 33, 6057-6067.	1.1	24

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91	Electric-dipole sum rule in nuclear matter. Nuclear Physics A, 1985, 435, 448-460.	0.6	13
92	Microscopic calculations of the enhancement factor in the electric dipole sum rule. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 1985, 156, 277-282.	1.5	5
93	Linked-cluster perturbative expansion in correlated-basis theory. Physical Review B, 1984, 29, 2544-2550.	1.1	13
94	Momentum distribution of nucleons in nuclear matter. Nuclear Physics A, 1984, 427, 473-492.	0.6	208
95	Perturbation theory in a correlated basis. , 1984, , 289-298.		1
96	Correlated basis theory of nucleon optical potential in nuclear matter. Nuclear Physics A, 1983, 399, 51-65.	0.6	99
97	Microscopic calculations for normal and polarized liquidHe3. Physical Review B, 1983, 28, 3770-3781.	1.1	146
98	Three-body correlations in liquidHe4. Physical Review B, 1982, 26, 6123-6130.	1.1	79
99	Single-Particle Spectrum and Specific Heat of LiquidHe3. Physical Review Letters, 1982, 48, 878-881.	2.9	43
100	Microscopic calculation of the imaginary part of the nucleon optical potential. Nuclear Physics A, 1982, 386, 1-28.	0.6	31
101	Correlated BCS theory. Nuclear Physics A, 1981, 363, 381-398.	0.6	26
102	The imaginary part of the nucleon optical potential in nuclear matter. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 1981, 104, 89-91.	1.5	103
103	Longitudinal spin-dependent correlations in nuclear matter. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 1981, 100, 507-510.	1.5	1
104	Correlations in infinite systems. , 1981, , 1-49.		5
105	Microscopic calculations on pair-condensed states of infinite fermi systems. , 1981, , 288-302.		0
106	FHNC calculations of momentum distribution. Lettere Al Nuovo Cimento Rivista Internazionale Della SocietÀ Italiana Di Fisica, 1980, 28, 283-288.	0.4	5
107	Variational calculation of nuclear matter. Nuclear Physics A, 1979, 328, 127-142.	0.6	23
108	Extension of the FHNC method to finite systems. Nuclear Physics A, 1979, 328, 478-489.	0.6	30

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109	FHNC expression for the three-body term of the kinetic energy in the Jackson-Feenberg form. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 1979, 84, 23-24.	1.5	22
110	The nuclear-matter problem with central spin- and isospin-dependent potentials. Il Nuovo Cimento A, 1978, 44, 414-426.	0.2	10
111	Momentum distribution of boson and fermion systems in Jastrow theory. Il Nuovo Cimento A, 1978, 44, 191-201.	0.2	94
112	The fermi-hypernetted-chain method for state-dependent Jastrow-correlated functions. Il Nuovo Cimento A, 1978, 43, 413-432.	0.2	39
113	Calculations of nuclear matter with state-dependent correlations and a semirealistic nucleon-nucleon potential. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 1977, 70, 1-5.	1.5	24
114	Microscopic calculations for a model Fermi liquid. Lettere Al Nuovo Cimento Rivista Internazionale Della Societ� Italiana Di Fisica, 1976, 16, 531-534.	0.4	41
115	Unconstrained Jastrow variational calculation on nuclear matter. Lettere Al Nuovo Cimento Rivista Internazionale Della Societ� Italiana Di Fisica, 1976, 15, 217-220.	0.4	30
116	The hypernetted-chain approximation for a fermion system. Il Nuovo Cimento A, 1975, 25, 593-615.	0.2	203
117	Calculation of the two-body correlation function for Fermion systems. Lettere Al Nuovo Cimento Rivista Internazionale Della Societ� Italiana Di Fisica, 1974, 10, 545-551.	0.4	68
118	Jastrow correlations and an irreducible cluster expansion for infinite boson or fermion systems. Il Nuovo Cimento A, 1974, 20, 179-193.	0.2	79