Orion Ciftja

List of Publications by Year
in descending order

124 papers	1,541 citations	361413 20 h-index	477307 29 g-index
126 all docs	126 docs citations	126 times ranked	586 citing authors

#	Article	IF	Citations
1	Monte Carlo simulation method for Laughlin-like states in a disk geometry. Physical Review B, 2003, 67, .	3.2	67
2	Equation of state and spin-correlation functions of ultrasmall classical Heisenberg magnets. Physical Review B, 1999, 60, 10122-10133.	3.2	54
3	Two-dimensional quantum-dot helium in a magnetic field: Variational theory. Physical Review B, 2005, 72, .	3.2	43
4	Monte Carlo study of Bose Laughlin wave function for filling factors 1/2, 1/4 and 1/6. Europhysics Letters, 2006, 74, 486-492.	2.0	42
5	Room temperature ferromagnetism in monoclinic Mn-doped ZrO2 thin films. Journal of Applied Physics, 2012, 111, 07C302.	2.5	39
6	Understanding electronic systems in semiconductor quantum dots. Physica Scripta, 2013, 88, 058302.	2.5	39
7	Equilibrium and uniform charge distribution of a classical two-dimensional system of point charges with hard-wall confinement. Physica Scripta, 2017, 92, 055801.	2.5	37
8	Fermi hypernetted-chain study of half-filled Landau levels with broken rotational symmetry. Physical Review B, 2002, 65, .	3.2	35
9	Ground state of two-dimensional quantum-dot helium in zero magnetic field:â€ƒPerturbation, diagonalization, and variational theory. Physical Review B, 2004, 70, .	3.2	32
10	NOVEL LIQUID CRYSTALLINE PHASES IN QUANTUM HALL SYSTEMS. International Journal of Modern Physics B, 2006, 20, 747-778.	2.0	31
11	Exact results for finite quantum Hall systems of electrons at filling factor one: Disk geometry. Journal of Mathematical Physics, 2011, 52, .	1.1	31
12	A JASTROW CORRELATION FACTOR FOR TWO-DIMENSIONAL PARABOLIC QUANTUM DOTS. Modern Physics Letters B, 2009, 23, 3055-3064.	1.9	29
13	The electrostatic potential of a uniformly charged disk as the source of novel mathematical identities. Applied Mathematics Letters, 2011, 24, 1919-1923.	2.7	27
14	Generalized description of few-electron quantum dots at zero and nonzero magnetic fields. Journal of Physics Condensed Matter, 2007, 19, 046220.	1.8	26
15	The electrostatic potential of a uniformly charged ring. European Journal of Physics, 2009, 30, 623-627.	0.6	26
16	Coulomb self-energy and electrostatic potential of a uniformly charged square in two dimensions. Physics Letters, Section A: General, Atomic and Solid State Physics, 2010, 374, 981-983.	2.1	24
17	Two interacting electrons in a one-dimensional parabolic quantum dot: exact numerical diagonalization. Journal of Physics Condensed Matter, 2006, 18, 2623-2633.	1.8	22
18	Calculation of the Coulomb electrostatic potential created by a uniformly charged square on its plane: Exact mathematical formulas. Journal of Electrostatics, 2013, 71, 102-108.	1.9	22

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19	Liquid crystalline states for two-dimensional electrons in strong magnetic fields. Physical Review B, 2004, 69, .	3.2	21
20	Electric potential of a uniformly charged square on its plane. European Journal of Physics, 2011, 32, L55-L57.	0.6	21
21	Exact results for systems of electrons in the fractional quantum Hall regime. Physica B: Condensed Matter, 2009, 404, 227-230.	2.7	20
22	Coulomb self-energy of a uniformly charged three-dimensional cylinder. Physica B: Condensed Matter, 2012, 407, 2803-2807.	2.7	20
23	A result for the Coulomb electrostatic energy of a uniformly charged disk. Results in Physics, 2017, 7, 1674-1675.	4.1	20
24	Coulomb self-energy of a uniformly charged three-dimensional cube. Physics Letters, Section A: General, Atomic and Solid State Physics, 2011, 375, 766-767.	2.1	19
25	Hartree–Fock energy of a finite two-dimensional electron gas system in a jellium background. Physica B: Condensed Matter, 2015, 458, 92-97.	2.7	19
26	The irregular tetrahedron of classical and quantum spins subjected to a magnetic field. Journal of Physics A, 2001, 34, 1611-1627.	1.6	18
27	Short-time-evolved wave functions for solving quantum many-body problems. Physical Review B, 2003, 68, .	3.2	18
28	Classical behavior of few-electron parabolic quantum dots. Physica B: Condensed Matter, 2009, 404, 1629-1631.	2.7	18
29	Energy in a finite two-dimensional spinless electron gas. AIP Advances, 2013, 3, .	1.3	18
30	A new hypernetted-chain treatment for Laughlin quantum Hall states. Europhysics Letters, 1996, 36, 663-668.	2.0	17
31	Theoretical estimates for the correlation energy of the unprojected composite fermion wave function. Physica E: Low-Dimensional Systems and Nanostructures, 2001, 9, 226-230.	2.7	17
32	Ferrite nanoparticles for future heart diagnostics. Applied Physics A: Materials Science and Processing, 2013, 112, 323-327.	2.3	17
33	Anisotropic magnetoresistance and piezoelectric effect in GaAs Hall samples. Physical Review B, 2017, 95, .	3.2	17
34	Detailed solution of the problem of Landau states in a symmetric gauge. European Journal of Physics, 2020, 41, 035404.	0.6	17
35	Spin correlation functions of some frustrated ultra-small classical Heisenberg clusters. Physica A: Statistical Mechanics and Its Applications, 2000, 286, 541-557.	2.6	16
36	A simple derivation of the exact wavefunction of a harmonic oscillator with time-dependent mass and frequency. Journal of Physics A, 1999, 32, 6385-6389.	1.6	15

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37	Hypernetted-chain study of broken rotational symmetry states for the $\nu=1⁄3$ fractional quantum Hall effect and other fractionally filled Landau levels. Physical Review B, 2001, 65, .	3.2	15
38	Stored Coulomb Self-Energy of a Uniformly Charged Rectangular Plate. Advances in Mathematical Physics, 2016, 2016, 1-8.	0.8	15
39	Trial state for a two-dimensional hexatic. Physical Review B, 2003, 67, .	3.2	14
40	Exact results for systems of electrons in the fractional quantum Hall regime II. Physica B: Condensed Matter, 2009, 404, 2244-2246.	2.7	14
41	Shape-Dependent Energy of an Elliptical Jellium Background. Advances in Condensed Matter Physics, 2015, 2015, 1-4.	1.1	14
42	Origin of the anomalous size-dependent increase of capacitance in boron nitride–graphene nanocapacitors. RSC Advances, 2019, 9, 7849-7853.	3.6	14
43	An experimentally justified confining potential for electrons in two-dimensional semiconductor quantum dots. Journal of Computer-Aided Materials Design, 2007, 14, 37-44.	0.7	13
44	ANALYTIC WAVE FUNCTIONS FOR THE HALF-FILLED LOWEST LANDAU LEVEL. International Journal of Modern Physics B, 2010, 24, 3489-3499.	2.0	13
45	Anisotropy of quantum Hall phases at filling factor $\nu=9/2$. Journal of Applied Physics, 2010, 107, .	2.5	13
46	Layer-Dependent Energy of Two Parallel Charged Nano-Layers. Journal of Nanoscience and Nanotechnology, 2016, 16, 9964-9971.	0.9	13
47	Equilibrium charge distribution on a finite straight one-dimensional wire. European Journal of Physics, 2017, 38, 055202.	0.6	13
48	Results for charged disks with different forms of surface charge density. Results in Physics, 2020, 16, 102962.	4.1	13
49	Liquid crystalline states in quantum Hall systems. Journal of Physics Condensed Matter, 2002, 14, 3705-3713.	1.8	12
50	Coulomb self-energy integral of a uniformly charged d-cube: A physically-based method for approximating multiple integrals. Journal of Electrostatics, 2017, 85, 52-60.	1.9	12
51	Cyclotron motion of a charged particle with anisotropic mass. American Journal of Physics, 2017, 85, 359-363.	0.7	12
52	Electrostatic interaction energy between two coaxial parallel uniformly charged disks. Results in Physics, 2019, 15, 102684.	4.1	12
53	Exact results for a quantum Hall state with broken rotational symmetry. Journal of Physics and Chemistry of Solids, 2019, 130, 256-262.	4.0	12
54	Deformation of the Fermi surface of a spinless two-dimensional electron gas in presence of an anisotropic Coulomb interaction potential. Scientific Reports, 2021, 11, 3181.	3.3	12

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55	Spin dynamics of an ultra-small nanoscale molecular magnet. Nanoscale Research Letters, 2007, 2, 168-174.	5.7	11
56	Anisotropy in two-dimensional electronic quantum Hall systems at half-filled valence Landau levels. Physica B: Condensed Matter, 2008, 403, 1511-1513.	2.7	11
57	Finite-size Monte Carlo results for anisotropic quantum Hall liquids. Physical Review B, 2011, 83, .	3.2	11
58	Application of the Fermi Hypernetted-Chain theory and Effective Correlation Factor method for laughlin quantum Hall states. Journal of Low Temperature Physics, 1997, 108, 357-371.	1.4	10
59	Coulomb energy of quasiparticle excitations in Chernâ€"Simons composite fermion states. Solid State Communications, 2002, 122, 401-406.	1.9	10
60	An anyon wavefunction for the fractional quantum Hall effect. Journal of Physics Condensed Matter, 2005, 17, 2977-2983.	1.8	10
61	Lamellar-like structures in ferrofluids placed in strong magnetic fields. Solid State Communications, 2009, 149, 532-536.	1.9	10
62	Anisotropic electronic states in the fractional quantum Hall regime. AIP Advances, 2017, 7, .	1.3	10
63	Coulomb potential and energy of a uniformly charged cylindrical shell. Journal of Electrostatics, 2018, 96, 45-48.	1.9	9
64	Integer quantum Hall effect with an anisotropic Coulomb interaction potential. Journal of Physics and Chemistry of Solids, 2021, 156, 110131.	4.0	9
65	Exact results for a composite-fermion wave function. Physical Review B, 1999, 59, 8132-8136.	3.2	8
66	Effects of Alâ€"Mn coâ€"doping on magnetic properties of semiconducting oxide thin films. Physica Status Solidi (B): Basic Research, 2014, 251, 2274-2278.	1.5	8
67	Properties of a finite fully spin-polarized free homogeneous one-dimensional electron gas. AIP Advances, 2015, 5, .	1.3	8
68	Concise presentation of the Coulomb electrostatic potential of a uniformly charged cube. Journal of Electrostatics, 2015, 76, 127-137.	1.9	8
69	Magnetic properties of a classical XY spin dimer in a â€œplanarâ€•magnetic field. Journal of Magnetism and Magnetic Materials, 2016, 416, 220-225.	2.3	8
70	Interplay of Dzyaloshinsky-Moriya and dipole-dipole interactions and their joint effects upon vortical structures on nanodisks. Physica E: Low-Dimensional Systems and Nanostructures, 2017, 90, 13-20.	2.7	8
71	A uniformly charged circular disk with an anisotropic Coulomb interaction potential. Journal of Electrostatics, 2020, 107, 103472.	1.9	8
72	Results for the electrostatic potential of a uniformly charged square plate. Results in Physics, 2020, 19, 103671.	4.1	8

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73	Energy gaps for fractional quantum Hall states described by a Chern-Simons composite fermion wavefunction. European Physical Journal B, 2001, 23, 437-440.	1.5	7
74	Impact of an elliptical Fermi surface deformation on the energy of a spinless two-dimensional electron gas. Physica Scripta, 2019, 94, 105806.	2.5	7
75	Energy Stored and Capacitance of a Circular Parallel Plate Nanocapacitor. Nanomaterials, 2021, 11, 1255.	4.1	7
76	Magnetic properties of small molecular clusters. Journal of Physics: Conference Series, 2010, 200, 022002.	0.4	6
77	QUANTUM HALL EDGE PHYSICS AND ITS ONE-DIMENSIONAL LUTTINGER LIQUID DESCRIPTION. International Journal of Modern Physics B, 2012, 26, 1244001.	2.0	6
78	Realistic confinement potential for a square-patterned two-dimensional semiconductor quantum dot and its approximated circular counterpart. International Nano Letters, 2012, 2, 1.	5.0	6
79	Quantitative Analysis of Shape-Sensitive Interaction of a Charged Nanoplate and a Charged Nanowire. Nano, 2015, 10, 1550114.	1.0	6
80	Electric field controlled spin interference in a system with Rashba spin-orbit coupling. AIP Advances, 2016, 6, 055217.	1.3	6
81	Pauli structures arising from confined particles interacting via a statistical potential. Annals of Physics, 2017, 384, 11-19.	2.8	6
82	Classical Magnetism and an Integral Formula Involving Modified Bessel Functions. International Journal of Nonlinear Sciences and Numerical Simulation, 2018, 19, 409-414.	1.0	6
83	Vortical structures for nanomagnetic memory induced by dipole-dipole interaction in monolayer disks. Superlattices and Microstructures, 2018, 117, 495-502.	3.1	6
84	Minimum and maximum energy for crystals of magnetic dipoles. Scientific Reports, 2020, 10, 19113.	3.3	6
85	Two-dimensional finite quantum Hall clusters of electrons with anisotropic features. Scientific Reports, 2022, 12, 2383.	3.3	6
86	Effective Interaction Potentials in the Uppermost Landau Level. Journal of Low Temperature Physics, 2010, 159, 189-192.	1.4	5
87	ONE-PARTICLE DENSITY OF LAUGHLIN STATES AT FINITE N. Modern Physics Letters B, 2011, 25, 1983-1992.	1.9	5
88	Finite clusters of fast-rotating spinless bosons in a harmonic trap. Journal of Physics and Chemistry of Solids, 2014, 75, 931-935.	4.0	5
89	Statistical Interaction Description of Pauli Crystals in 2D Systems of Harmonically Confined Fermions. Annalen Der Physik, 2019, 531, 1900075.	2.4	5
90	Electrostatic potential energy stored in a hemispherical surface with uniform surface charge distribution. Journal of Electrostatics, 2021, 111, 103579.	1.9	5

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91	Energy of a finite three-dimensional electron gas of spinless electrons. Journal of Physics and Chemistry of Solids, 2020, 136, 109135.	4.0	4
92	Energy of the Bose Laughlin quantum Hall state of few electrons at half filling of the lowest Landau level. Annals of Physics, 2020, 421, 168279.	2.8	4
93	Results for the ground state energy of a finite system of dipoles in a one-dimensional crystal lattice. Results in Physics, 2020, 17, 103178.	4.1	4
94	Fourier transform method for the electrostatic self-energy of a solid sphere with uniform volume charge density. European Journal of Physics, 2021, 42, 025204.	0.6	4
95	Results for the electrostatic potential of a uniformly charged hemispherical surface. Results in Physics, 2021, 30, 104892.	4.1	4
96	Electrostatic potential of a uniformly charged square plate at an arbitrary point in space. Physica Scripta, 2020, 95, 095802.	2.5	4
97	4He Shadow Wave Function with an Inverse Seventh Power Particle–Particle Correlation Function. Journal of Low Temperature Physics, 2001, 122, 605-616.	1.4	3
98	The coherent-state wave function for solid3He. Journal of Physics Condensed Matter, 2001, 13, 1041-1050.	1.8	3
99	Few‐electron semiconductor quantum dots in magnetic field. Physica Status Solidi C: Current Topics in Solid State Physics, 2009, 6, 825-828.	0.8	3
100	Anisotropic Quantum Hall Liquids at Intermediate Magnetic Fields. Journal of Low Temperature Physics, 2013, 170, 166-171.	1.4	3
101	Mathematical expressions for a system of two identical uniformly charged rods. Physica Scripta, 2014, 89, 115803.	2.5	3
102	Anisotropic Quantum Hall Liquid States with No Translational Invariance in the Lowest Landau Level. Journal of Low Temperature Physics, 2016, 183, 85-91.	1.4	3
103	Hypergeometric solutions for Coulomb self-energy model of uniformly charged hollow cylinder. Integral Transforms and Special Functions, 2019, 30, 418-430.	1.2	3
104	New solution method for the problem of a uniformly charged straight wire. European Journal of Physics, 2021, 42, 025203.	0.6	3
105	Origin of the anisotropic Coulomb interaction potential for a two-dimensional system of charged particles with anisotropic mass. Results in Physics, 2021, 26, 104427.	4.1	3
106	Ladder Ising spin configurations II. magnetic properties. Physica Status Solidi (B): Basic Research, 1996, 197, 153-164.	1.5	2
107	Semi‐Classical Model of Strongly Correlated Coulomb Systems in Weak Magnetic Field. Contributions To Plasma Physics, 2011, 51, 401-404.	1.1	2
108	Confinement of electrons in a geometrically patterned non‐circular two‐dimensional semiconductor quantum dot. Physica Status Solidi C: Current Topics in Solid State Physics, 2012, 9, 1337-1344.	0.8	2

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109	Two-dimensional motion of a parabolically confined charged particle in a perpendicular magnetic field. Open Physics, 2013, 11, .	1.7	2
110	Results for the energy of a finite one-dimensional ionic crystal. Results in Physics, 2017, 7, 3696-3697.	4.1	2
111	Equivalence of an infinite one-dimensional ionic crystal to a simple electrostatic model. Results in Physics, 2019, 13, 102325.	4.1	2
112	On a solution method for the bound energy states of a particle in a one-dimensional symmetric finite square well potential. European Journal of Physics, 2019, 40, 045402.	0.6	2
113	Geometrical interpretation of the electrostatic potential created by a uniformly charged straight wire. European Journal of Physics, 2019, 40, 015501.	0.6	2
114	Interaction energy between two identical hemispherical surfaces with uniform surface charge density. European Journal of Physics, 2021, 42, 065202.	0.6	2
115	Exact classical spin dynamics of high spin nanoscale molecular magnetic clusters. Physics Letters, Section A: General, Atomic and Solid State Physics, 2021, , 127826.	2.1	2
116	Anisotropy in a high Landau level due to effective electron-electron interactions. Journal of the Korean Physical Society, 2013, 62, 1550-1554.	0.7	1
117	A quantum simulation approach for a three-dimensional Ising spin modelâ€"Comparison to mean field theory. AIP Advances, 2017, 7, .	1.3	1
118	Interaction energy of a pair of identical coplanar uniformly charged nanodisks. AIP Advances, 2018, 8, 035209.	1.3	1
119	Emergence of liquid crystalline order in the lowest Landau level of a quantum Hall system with internal anisotropy. AIP Advances, 2018, 8, 055812.	1.3	1
120	Electrostatic energy of interaction between uniformly charged hemispherical surfaces. Journal of Electrostatics, 2022, 115, 103666.	1.9	1
121	Properties of Quantum Dots and Their Biological Applications. , 2019, , 21-45.		0
122	A two-dimensional electron gas suspended above a neutralizing background. Annals of Physics, 2021, 429, 168468.	2.8	0
123	Detailed Study of an Ultra-Small Pauli Crystal. Few-Body Systems, 2022, 63, 1.	1.5	0
124	Variation of the elliptical Fermi surface for a two-dimensional electron gas with anisotropic mass. Journal of Physics: Conference Series, 2022, 2164, 012023.	0.4	0