

# Valery G Rousseau

## List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/1469627/publications.pdf>

Version: 2024-02-01

55  
papers

1,270  
citations

411340

20  
h-index

406436

35  
g-index

55  
all docs

55  
docs citations

55  
times ranked

852  
citing authors

#	ARTICLE	IF	CITATIONS
1	Quantum membrane phases in synthetic lattices of cold molecules or Rydberg atoms. Physical Review A, 2022, 105, .	1.0	3
2	Magnetic phase transition in the ground-state phase diagram of binary bose gases in optical lattices. Europhysics Letters, 2021, 134, 16001.	0.7	0
3	Two-photon Rabi-Hubbard and Jaynes-Cummings-Hubbard models: Photon-pair superradiance, Mott insulator, and normal phases. Physical Review A, 2019, 100, .	1.0	11
4	One-dimensional Hubbard-Holstein model with finite-range electron-phonon coupling. Physical Review B, 2019, 99, .	1.1	7
5	Scaling properties of Tan's contact: Embedding pairs and correlation effect in the Tonks-Girardeau limit. Physical Review A, 2019, 100, .	1.0	10
6	Phase diagrams of antiferromagnetic spin-1 bosons on a square optical lattice with the quadratic Zeeman effect. Physical Review A, 2018, 97, .	1.0	4
7	Local density of the Bose-glass phase. Physical Review B, 2018, 98, .	1.1	3
8	Quantum and thermal phase transitions in a bosonic atom-molecule mixture in a two-dimensional optical lattice. Physical Review A, 2017, 95, .	1.0	4
9	Phase diagram of bosons in a two-dimensional optical lattice with infinite-range cavity-mediated interactions. Physical Review B, 2017, 95, .	1.1	44
10	Quantum Monte Carlo study of the Rabi-Hubbard model. European Physical Journal D, 2016, 70, 1.	0.6	12
11	Bose-Hubbard model on a triangular lattice with diamond ring exchange. Physical Review B, 2016, 94, .	1.1	0
12	Competing exotic quantum phases of spin- $\frac{1}{2}$ ultracold lattice bosons with extended spin interactions. Physical Review B, 2015, 92, .	1.1	3
13	Cooling Atomic Gases With Disorder. Physical Review Letters, 2015, 115, 240402.	2.9	19
14	Competition between the Haldane insulator, superfluid and supersolid phases in the one-dimensional Bosonic Hubbard Model. Journal of Physics: Conference Series, 2015, 640, 012042.	0.3	2
15	Bosonic Kondo-Hubbard model. Physical Review B, 2015, 92, .	1.1	4
16	Feshbach-Stabilized Insulator of Bosons in Optical Lattices. Physical Review Letters, 2015, 114, 195302.	2.9	11
17	Competing phases, phase separation, and coexistence in the extended one-dimensional bosonic Hubbard model. Physical Review B, 2014, 90, .	1.1	23
18	Ferromagnetic phase in the polarized two-species bosonic Hubbard model. Physical Review B, 2014, 90, .	1.1	0

#	ARTICLE	IF	CITATIONS
19	Superfluid density in continuous and discrete spaces: Avoiding misconceptions. Physical Review B, 2014, 90, .	1.1	19
20	Bose-Hubbard model on a kagome lattice with sextic ring-exchange terms. Physical Review B, 2013, 87, .	1.1	2
21	Interacting spin-1 bosons in a two-dimensional optical lattice. Physical Review B, 2013, 88, .	1.1	25
22	Competing Supersolid and Haldane Insulator Phases in the Extended One-Dimensional Bosonic Hubbard Model. Physical Review Letters, 2013, 110, 265303.	2.9	41
23	Exotic phases of interacting $p$ -band bosons. Physical Review B, 2013, 87, .	1.1	19
24	Phase stability in the two-dimensional anisotropic boson Hubbard Hamiltonian. Physical Review B, 2013, 87, .	1.1	2
25	Phase diagram of the Bose-Hubbard model on a ring-shaped lattice with tunable weak links. Physical Review A, 2013, 87, .	1.0	9
26	Complex phases in the doped two-species bosonic Hubbard model. Physical Review B, 2013, 88, .	1.1	6
27	Optimized confinement of fermions in two dimensions. Physical Review B, 2012, 85, .	1.1	2
28	Finite temperature phase diagram of spin-1/2 bosons in two-dimensional optical lattice. European Physical Journal B, 2012, 85, 1.	0.6	9
29	Ground-state phase diagram of spin- $\frac{1}{2}$ bosons in a two-dimensional optical lattice. Physical Review B, 2011, 84, .	1.1	20
30	Pairing in population imbalanced Fermion systems. Computer Physics Communications, 2011, 182, 2021-2024.	3.0	1
31	Using off-diagonal confinement as a cooling method. Physical Review A, 2010, 82, .	1.0	3
32	Phase diagram of spin- $\frac{1}{2}$ bosons in a one-dimensional optical lattice. Physical Review A, 2010, 82, .	1.0	1
33	Finite-temperature quantum Monte Carlo study of the one-dimensional polarized Fermi gas. Physical Review A, 2010, 82, .	1.0	28
34	Pure Mott Phases in Confined Ultracold Atomic Systems. Physical Review Letters, 2010, 104, 167201.	2.9	14
35	State diagrams for harmonically trapped bosons in optical lattices. Physical Review A, 2009, 79, .	1.0	65
36	Feshbach-Einstein Condensates. Physical Review Letters, 2009, 102, 015301.	2.9	24

#	ARTICLE	IF	CITATIONS
37	Magnetic and Superfluid Transitions in the One-Dimensional Spin-1 Boson Hubbard Model. Physical Review Letters, 2009, 102, 140402.	2.9	45
38	Pair formation and collapse in imbalanced fermion populations with unequal masses. Europhysics Letters, 2009, 86, 47006.	0.7	29
39	Exact Numerical Study of Pair Formation with Imbalanced Fermion Populations. Physical Review Letters, 2008, 100, 116405.	2.9	95
40	Quantum phases of mixtures of atoms and molecules on optical lattices. Physical Review A, 2008, 77, .	1.0	22
41	Quantum Monte Carlo study of the visibility of one-dimensional Bose-Fermi mixtures. Physical Review A, 2008, 77, .	1.0	21
42	Canonical trajectories and critical coupling of the Bose-Hubbard Hamiltonian in a harmonic trap. Physical Review A, 2008, 78, .	1.0	22
43	Superfluid and Mott-insulator phases of one-dimensional Bose-Fermi mixtures. Physical Review A, 2008, 78, .	1.0	26
44	Supersolids in one-dimensional Bose-Fermi mixtures. Physical Review B, 2008, 78, .	1.1	29
45	Directed update for the stochastic Green function algorithm. Physical Review E, 2008, 78, 056707.	0.8	57
46	Stochastic Green function algorithm. Physical Review E, 2008, 77, 056705.	0.8	55
47	Phase Diagram and Visibility of Optically Trapped Bosons. AIP Conference Proceedings, 2006, , .	0.3	0
48	Phase separation in the two-dimensional boson Hubbard model with ring exchange. AIP Conference Proceedings, 2006, , .	0.3	0
49	Exact study of the one-dimensional boson Hubbard model with a superlattice potential. Physical Review B, 2006, 73, .	1.1	74
50	Equilibrium and Dynamical Properties of the Boson Hubbard Model in One Dimension. Journal of Low Temperature Physics, 2005, 140, 313-332.	0.6	4
51	Ring exchange and phase separation in the two-dimensional boson Hubbard model. Physical Review B, 2005, 72, .	1.1	18
52	Collective Oscillations of Strongly Correlated One-Dimensional Bosons on a Lattice. Physical Review Letters, 2005, 95, 110402.	2.9	26
53	Phase Separation in the Two-Dimensional Bosonic Hubbard Model with Ring Exchange. Physical Review Letters, 2004, 93, 110404.	2.9	14
54	Spin and charge dynamics of stripes in doped Mott insulators. Europhysics Letters, 2003, 63, 569-575.	0.7	9

#	ARTICLE	IF	CITATIONS
55	Mott Domains of Bosons Confined on Optical Lattices. Physical Review Letters, 2002, 89, 117203.	2.9	264