

LIST OF PUBLICATIONS OF LUCA SALASNICH

According to Scopus (Elsevier) the publications got more than 5300 citations with h-index $h = 39$.

in Scientific Journals	in Volumes and Other Scientific Journals	Books with ISBN
248 (51 single-authored)	23 (8 single-authored)	5 (3 single-authored)

Papers in Scientific Journals

- [1] V.R. Manfredi and L. Salasnich,
"Short Orbit Distribution in the Semiclassical Limit of the SU(3) Nuclear Model",
Zeitschrift fur Physik A **343**, 1-5 (1992).
- [2] V.R. Manfredi, L. Salasnich, and L. Demattè,
"Quasi-Crossing Distribution as Signature of the Onset of Chaos in the SU(3) Nuclear Model",
Physical Review E **47**, 4556-4559 (1993).
- [3] M.T. Lopez-Arias, V.R. Manfredi, and L. Salasnich,
"From Regular to Chaotic States in Atomic Nuclei",
Rivista del Nuovo Cimento **17**, n. 5, 1-45 (1994).
- [4] S. Graffi, V.R. Manfredi, and L. Salasnich,
"Accuracy in the Semi-Classical Approximation: the Pullen Edmonds Hamiltonian",
Nuovo Cimento B **109**, 1147-1154 (1994).
- [5] L. Salasnich,
"Chaos Suppression in the SU(2) Yang-Mills-Higgs System",
Physical Review D **52**, 6189-6191 (1995).
- [6] L. Salasnich,
"Instabilities, Point Attractors and Limit Cycles in a Inflationary Universe",
Modern Physics Letters A **10**, 3119-3127 (1995).
- [7] V.R. Manfredi and L. Salasnich,
"The Onset of Chaos with a Quadrupole-Quadrupole Interaction",
Nuovo Cimento A **108**, 449-456 (1995).
- [8] L. Salasnich and F. Sattin,
"Charge Exchange Processes between Excited Helium and Fully Stripped Ions",
Physical Review A **51**, 4281-4283 (1995).
- [9] S. Graffi, V.R. Manfredi, and L. Salasnich,
"Quantal Overlapping Resonance Criterion: the Pullen Edmonds Model",
Modern Physics Letters B **9**, 747-753 (1995).
- [10] V.R. Manfredi and L. Salasnich,
"Order and Chaos in Roto-Vibrational States of Atomic Nuclei",
International Journal of Modern Physics E **4**, 625-636 (1995).
- [11] V.R. Manfredi and L. Salasnich,
"Quantum Corrections to the Semi-Classical Quantization of the SU(3) Shell Model",
International Journal of Modern Physics B **9**, 3219-3227 (1995).
- [12] E. Caurier, J.M.G. Gomez, V.R. Manfredi, and L. Salasnich,
"Quantum Chaos in A=46-50 Atomic Nuclei",
Physics Letters B **365**, 7-11 (1996).

- [13] L. Salasnich and F. Sattin,
"Ion Collisions in Very Strong Electric Fields",
Journal of Physics B: Atom. Mol. Opt. Phys. **29**, 751-760 (1996).
- [14] V.R. Manfredi, M. Rosa-Clot, L. Salasnich, and S. Taddei,
"Quantum Chaos in Vibrational Nuclei: the Green Function Approach",
International Journal of Modern Physics E **5**, 521-530 (1996).
- [15] F. Sattin and L. Salasnich,
"Chaotic Features in Classical Scattering Processes Between Ions and Atoms",
Journal of Physics B: Atom. Mol. Opt. Phys. **29**, L699-L703 (1996).
- [16] L. Salasnich,
"Torus Quantization of Two Anyons with Coulomb Interaction in a Magnetic Field",
Modern Physics Letters B **11** 269-273 (1997).
- [17] L. Salasnich,
"On the Limit Cycle of an Inflationary Universe",
Nuovo Cimento B **112**, 873-880 (1997).
- [18] L. Salasnich,
"Quantum Chaos in a Yang-Mills-Higgs System",
Modern Physics Letters A **12**, 1473-1480 (1997).
- [19] L. Salasnich,
"The Role of Dimensionality in the Stability of a Confined Condensed Bose Gas",
Modern Physics Letters B **11**, 1249-1254 (1997).
- [20] K. Kar, S. Sarkar, J.M.G. Gomez, V.R. Manfredi, and L. Salasnich,
"Spectral Distribution Studies of fp Shell Nuclei with Modified Kuo-Brown Interaction",
Physical Review C **57**, 2160-2165 (1997).
- [21] M. Robnik and L. Salasnich,
"WKB to All Orders and the Accuracy of the Semiclassical Approximation",
Journal of Physics A: Math. Gen. **30**, 1711-1718 (1997).
- [22] M. Robnik and L. Salasnich,
"WKB Expansion for the Angular Momentum and the Kepler Problem: from the Torus Quantization to the Exact One", *Journal of Physics A: Math. Gen.* **30**, 1719-1729 (1997).
- [23] V.R. Manfredi and L. Salasnich,
"A Note on the Toda Criterion for Interacting Dipole-Quadrupole Vibrations",
Modern Physics Letters A **12**, 1951-1956 (1997).
- [24] L. Salasnich and F. Sattin,
"SWKB for the Angular Momentum",
Modern Physics Letters B **11**, 801-805 (1997).
- [25] L. Salasnich and F. Sattin,
"On the Convergence of the WKB series for the Angular Momentum Operator",
Journal of Physics A: Math. Gen. **30**, 7597-7602 (1997).
- [26] L. Salasnich,
"Classical and Quantum Perturbation Theory for two Non-Resonant Oscillators with Quartic Interaction", *Meccanica* **33**, 397-405 (1998).
- [27] L. Salasnich,
"Note on The Role of Dimensionality in the Stability of a Confined Condensed Bose Gas: Reply to a Comment", *Modern Physics Letters B* **12**, 649-651 (1998).
- [28] L. Salasnich,
"Quantum Signature of the Chaos-Order Transition in a Homogenous SU(2) Yang-Mills-Higgs Field", *Physics of Atomic Nuclei* **61**, 1878-1881 (1998); also *Yad. Fiz.* **61**, 1990-1993 (1998).

- [29] M. Morandi Cecchi and L. Salasnich,
"Shallow Water Theory and its Application to the Venice Lagoon",
Computer Methods for Applied Mechanics and Engineering **151**, 63-74 (1998).
- [30] A. Parola, L. Salasnich, and L. Reatto,
"Structure and Stability of Bosonic Clouds: Alkali-Metal Atoms with Negative Scattering Length",
Physical Review A (Rapid Comm.) **57**, R3180-R3183 (1998).
- [31] J.M.G. Gomez, V.R. Manfredi, L. Salasnich, and E. Caurier,
"Spectral Statistics of Calcium Isotopes from Realistic Shell Model Calculations",
Physical Review C **58**, 2108-2114 (1998).
- [32] F. Sattin and L. Salasnich,
"A CTMC Study of Collisions Between Protons and H_2^+ Ions",
Physica Scripta **58**, 464-468 (1998).
- [33] L. Reatto, A. Parola and L. Salasnich,
"Bosonic Clouds with Attractive Interaction beyond the Local Interaction Approximation",
Journal of Low Temperature Physics **113**, 195-200 (1998).
- [34] E. Cerboneschi, R. Mannella, E. Arimondo, and L. Salasnich,
"Oscillation Frequencies for a Bose Condensate in a Triaxial Magnetic Trap", *Physics Letters A*
249, 495-500 (1998).
- [35] L. Salasnich,
"Instability and Chaos in Spatially Homogeneous Field Theories",
Journal of Mathematical Physics **40**, 4429-4443 (1999).
- [36] F. Sattin and L. Salasnich,
"Chaos in Coplanar Classical Scattering Collisions with Particles Interacting through r^{-2} Forces",
Physical Review E **59**, 1246-1249 (1999).
- [37] L. Salasnich, A. Parola, and L. Reatto,
"Bosons in a Toroidal Trap: Ground State and Vortices",
Physical Review A **59**, 2990-2995 (1999).
- [38] V.R. Manfredi and L. Salasnich,
"Different Facets of Chaos in Quantum Mechanics",
International Journal of Modern Physics B **13**, 2343-2360 (1999).
- [39] L. Salasnich, A. Parola, and L. Reatto,
"Bose Condensate in a Double-Well Trap: Ground State and Elementary Excitations",
Physical Review A **60**, 4171-4174 (1999).
- [40] L. Salasnich,
"Self-Trapping, Quantum Tunneling and Decay Rates for a Bose Gas with Attractive Nonlocal
Interaction", *Physical Review A* **61**, 015601 (2000).
- [41] L. Salasnich,
"Time-dependent Variational Approach to Bose-Einstein Condensation",
International Journal of Modern Physics B **14**, 1-11 (2000).
- [42] L. Salasnich,
"Resonances and Chaos in the Collective Oscillations of a Trapped Bose Condensate",
Physics Letters A **266**, 187-192 (2000).
- [43] L. Salasnich,
"BEC in Nonextensive Statistical Mechanics",
International Journal of Modern Physics B **14**, 405-410 (2000).
- [44] L. Salasnich,
"Chaotic Oscillations in Finite Quantum Systems: Trapped Bose-Einstein Condensates",
Progress in Theoretical Physics Supplement **139**, 414-420 (2000).

- [45] [L. Salasnich](#),
 "Ideal Quantum Gases in D-dimensional Space and Power-law Potentials",
Journal of Mathematical Physics **41**, 8016-8024 (2000).
- [46] G. Pennacchioni, L. Fasolo, M. Morandi Cecchi, and L. Salasnich,
 "Finite-Element Modelling of Simple Shear flow in Newtonian and Non-Newtonian Fluids around
 a Circular Rigid Particle", *Journal of Structural Geology* **22**, 683-692 (2000).
- [47] B. Pozzi, L. Salasnich, A. Parola, and L. Reatto,
 "Thermodynamics of Trapped Bose Condensate with Negative Scattering Length",
Journal of Low Temperature Physics **119**, 57-77 (2000).
- [48] M. Robnik, L. Salasnich, and M. Vranikar,
 "High Order WKB Prediction of the Energy Splitting in the Symmetric Double Well Potential",
Progress in Theoretical Physics Supplement **139**, 550-557 (2000).
- [49] B. Pozzi, L. Salasnich, A. Parola, and L. Reatto,
 "Thermodynamics of Bose Condensed Atomic Hydrogen",
European Physical Journal D **11**, 367-370 (2000).
- [50] L. Salasnich, B. Pozzi, A. Parola, and L. Reatto,
 "Thermodynamics of Multi-Component Fermi Vapors",
Journal of Physics B: Atom. Mol. Opt. Phys. **33**, 3943-3952 (2000).
- [51] V.R. Manfredi and L. Salasnich,
 "Energy Level Quasi Crossings: Accidental Degeneracies or Signatures of Quantum Chaos?",
International Journal of Modern Physics E **9**, 279-297 (2000).
- [52] [L. Salasnich](#),
 "BEC in Nonextensive Statistical Mechanics: Some Additional Results",
International Journal of Modern Physics B **15**, 1253-1256 (2001).
- [53] L. Salasnich, A. Parola, and L. Reatto,
 "Pulsed Macroscopic Quantum Tunneling of Falling Condensates",
Physical Review A **64**, 023601 (2001).
- [54] V.R. Manfredi and L. Salasnich,
 "Pathological behavior in the Spectral Statistics of the Asymmetric Rotor Model",
Physical Review E **64**, 066201 (2001).
- [55] [L. Salasnich](#),
 "Pulsed Quantum Tunneling with Matter Waves",
Laser Physics **12**, 198-202 (2002).
- [56] F. Sattin and L. Salasnich,
 "Multi-parameter generalizations of nonextensive statistical mechanics",
Physical Review E (Rapid Comm.) **65**, 035106(R) (2002).
- [57] L. Salasnich, A. Parola, and L. Reatto,
 "Effective Wave-Equations for the Dynamics of Cigar-shaped and Disc-shaped Bose condensates",
Physical Review A **65**, 043614 (2002).
- [58] [L. Salasnich](#),
 "Critical Temperature of an Interacting Bose Gas in a Generic Power-Law Potential",
International Journal of Modern Physics B **16**, 2185 (2002).
- [59] L. Salasnich, A. Parola, and L. Reatto,
 "Periodic Quantum Tunneling and Parametric Resonances with Cigar-Shaped Bose-Einstein Con-
 densates", *Journal of Physics B: Atom. Mol. Opt. Phys.* **35**, 3205-3216 (2002).
- [60] L. Salasnich, A. Parola, and L. Reatto,
 "Condensate Bright Solitons under Transverse Confinement",
Physical Review A **66**, 043603 (2002).

- [61] L. Salasnich,
"Particles and Anti-Particles in a Relativistic Bose Condensate",
Nuovo Cimento B **114**, 637-646 (2002).
- [62] L. Salasnich,
"Parametric Resonance Phenomena in Bose-Einstein Condensates: Enhancement of Quantum Tunneling", *Laser Physics* **13**, 543-546 (2003).
- [63] L. Salasnich,
"Parametric Resonance Phenomena in Bose-Einstein Condensates: Breaking of Macroscopic Quantum Self-trapping", *Laser Physics* **13**, 547-550 (2003).
- [64] V.R. Manfredi, V. Penna, and L. Salasnich,
"Spectral Statistics of the Asymmetric Rotor Model: Semiclassical Origin of the Pathological Behavior", *Modern Physics Letters B* **17**, 803-812 (2003).
- [65] L. Salasnich, A. Parola, and L. Reatto,
"Modulational Instability and Complex Dynamics of Confined Matter-Wave Solitons",
Physical Review Letters **91**, 080405 (2003).
- [66] L. Salasnich,
"3D BEC Solitons under Transverse Confinement: Analytical Results with the Nonpolynomial Schrödinger Equation", *Progress of Theoretical Physics Supplement*, numb. **150**, 415-418 (2003).
- [67] N. Piovella, L. Salasnich, R. Bonifacio and G. Robb,
"Atomic Interaction Effects in the Superradiant Light Scattering from a Bose-Einstein Condensate",
Laser Physics **14**, 278-283 (2004).
- [68] L. Salasnich,
"Formation of Multi-Solitons and Vortex Bright Solitons in Bose-Condensed Alkali-Metal Atoms",
Laser Physics **14**, 291-294 (2004).
- [69] L. Salasnich, A. Parola, and L. Reatto,
"Dimensional Reduction in Bose-Einstein-Condensed Alkali-Metal Vapors",
Physical Review A **69**, 045601 (2004).
- [70] L. Salasnich, A. Parola, and L. Reatto,
"Transition from Three Dimensions to One Dimension in Bose Gases at Zero Temperature",
Physical Review A **70**, 013606 (2004).
- [71] L. Salasnich,
"Dynamics of a Bose-Einstein-Condensate Bright Soliton in an Expulsive Potential",
Physical Review A **70**, 053617 (2004).
- [72] L. Salasnich,
"Triaxial Bright Solitons in Bose-Condensed Atomic Vapors",
Laser Physics **15**, N. 2, 366-370 (2005).
- [73] N. Manini and L. Salasnich,
"Bulk and Collective Properties of a Dilute Fermi Gas in the BCS-BEC crossover",
Physical Review A **71**, 033625 (2005).
- [74] J.M.G. Gomez, A. Relano, J. Retamosa, E. Faleiro, L. Salasnich, M. Vranicar, and M. Robnik,
" $1/f^\alpha$ Noise in Spectral Fluctuations of Quantum Systems",
Physical Review Letters **94**, 084101 (2005).
- [75] L. Salasnich,
"Colored Noise in Quantum Chaos",
Physical Review E **71**, 047202 (2005).
- [76] L. Salasnich, N. Manini, and A. Parola,
"Condensate Fraction of a Fermi Gas in the BCS-BEC crossover",
Physical Review A **72**, 023621 (2005).

- [77] L. Salasnich, A. Parola, and L. Reatto,
"Quasi One-Dimensional Bosons in Three-dimensional Traps: from weak-coupling to strong-coupling regime", *Physical Review A* **72**, 025602 (2005).
- [78] A. Parola, L. Salasnich, R. Rota, and L. Reatto,
"Quantum Phases of Attractive Matter Waves in a Confining Three-Dimensional Ring",
Physical Review A **72**, 063612 (2005).
- [79] [L. Salasnich](#),
"Beyond Mean-Field Theory for Attractive Bosons under Transverse Harmonic Confinement",
Journal of Physics B: At. Mol. Opt. Phys. **39** 1743-1750 (2006).
- [80] G. Diana, N. Manini, and L. Salasnich,
"Expansion of a Fermi Gas in the BCS-BEC Crossover",
Physical Review A **73**, 065601 (2006).
- [81] L. Salasnich, A. Parola, and L. Reatto,
"Dimensional Effects on Solitonic Matter and Optical Waves with Normal and Anomalous Dispersion", *Journal of Physics B: At. Mol. Opt. Phys.* **39**, 2839-2847 (2006).
- [82] L. Salasnich, A. Parola, and L. Reatto,
"Thermodynamics of Solitonic Matter Waves in a Toroidal Trap",
Physical Review A (Rapid. Comm.) **74**, 031603(R) (2006).
- [83] L. Salasnich and B.A. Malomed,
"Vector Solitons in Nearly-One-Dimensional Bose-Einstein Condensates",
Physical Review A **74**, 053610 (2006).
- [84] L. Salasnich and N. Manini,
"Mean-Field vs Monte-Carlo Equation of State for the Expansion of a Fermi Superfluid in the BCS-BEC Crossover", *Laser Physics* **17**, 169-173 (2007).
- [85] L. Salasnich and F. Toigo,
"Fermi-Bose Mixture across a Feshbach Resonance",
Physical Review A **75**, 013623 (2007).
- [86] L. Salasnich, S.A. Adhikari, and F. Toigo,
"Self-Bound Droplet of Bose and Fermi Atoms in One Dimension: Collective properties in mean-field and Tonks-Girardeau regimes", *Physical Review A* **75**, 023616 (2007).
- [87] L. Salasnich, A. Cetoli, B.A. Malomed, and F. Toigo,
"Nearly-One-Dimensional Attractive Bose-Einstein Condensates in Optical Lattices",
Physical Review A **75**, 033622 (2007).
- [88] L. Salasnich, N. Manini, F. Bonelli, M. Korbman, and A. Parola,
"Self-induced Density Modulations in the Free Expansion of a Bose-Einstein Condensate",
Physical Review A **75**, 043616 (2007).
- [89] S.K. Adhikari and L. Salasnich,
"Mixing-Demixing and Collapse of a Vortex State in a Quasi-Two-Dimensional Boson-Fermion Mixture", *Physical Review A* **75**, 053603 (2007).
- [90] L. Salasnich, A. Cetoli, B.A. Malomed, F. Toigo, and L. Reatto,
"Bose-Einstein Condensates under a Spatially-Modulated Transverse Confinement",
Physical Review A **76**, 013623 (2007).
- [91] [L. Salasnich](#),
"Condensate Fraction of a Two-Dimensional Attractive Fermi Gas",
Physical Review A **76**, 015601 (2007).
- [92] [L. Salasnich](#),
"Kirzhnits Gradient Expansion for a D-dimensional Fermi Gas",
Journal of Physics A: Math. and Theor. **40**, 9987-9992 (2007).

- [93] S.K. Adhikari and L. Salasnich,
"One-dimensional superfluid Bose-Fermi mixture: mixing, demixing and bright solitons",
Physical Review A **76**, 023612 (2007).
- [94] L. Salasnich, B.A. Malomed and F. Toigo,
"Matter-wave vortices in cigar-shaped and toroidal waveguides",
Physical Review A **76**, 063614 (2007).
- [95] L. Salasnich and F. Toigo,
"Shell Effects in the First Sound Velocity of an Ultracold Fermi Gas",
Journal of Low Temperature Physics **150**, 643-648 (2008).
- [96] S.K. Adhikari and L. Salasnich,
"Nonlinear Schrödinger Equation for a Superfluid Bose Gas from Weak Coupling to Unitarity:
Study of Vortices", *Physical Review A* **77**, 033618 (2008).
- [97] L. Salasnich, B.A. Malomed, and F. Toigo,
"Effects of Axial Vorticity in Elongated Mixtures of Bose-Einstein Condensates",
Physical Review A **77**, 035601 (2008).
- [98] L. Salasnich, N. Manini, and F. Toigo,
"Macroscopic Periodic Tunneling with Fermi Atoms in the BCS-BEC crossover",
Physical Review A **77**, 043609 (2008).
- [99] A. Maluckov, L. Hadzievski, B.A. Malomed, and L. Salasnich,
"Solitons in the discrete nonpolynomial Schrödinger equation",
Physical Review A **78**, 013616 (2008).
- [100] S.K. Adhikari and L. Salasnich,
"Superfluid Bose-Fermi mixture from weak-coupling to unitarity",
Physical Review A **78**, 043616 (2008).
- [101] L. Salasnich and F. Toigo,
"Extended Thomas-Fermi Density Functional for the Unitary Fermi Gas",
Physical Review A **78**, 053626 (2008). (see also [122]).
- [102] S.K. Adhikari and L. Salasnich,
"Effective nonlinear Schrödinger equations for cigar-shaped and disk-shaped Fermi superfluids at
unitarity", *New Journal of Physics* **11**, 023011 (2009).
- [103] G. Mazzaella, L. Salasnich, and F. Toigo,
"Zero sound and first sound in a disk-shaped Fermi Gases",
Physical Review A **79**, 023615 (2009).
- [104] F. Ancilotto, L. Salasnich, and F. Toigo,
"dc Josephson effect with Fermi gases in the Bose-Einstein regime",
Physical Review A **79**, 033627 (2009).
- [105] L. Salasnich, F. Ancilotto, N. Manini, and F. Toigo,
"dc and ac Josephson effect with ultracold Fermi atoms across a Feshbach resonance",
Laser Physics **19**, 636-641 (2009).
- [106] **L. Salasnich**,
"Hydrodynamics of Bose and Fermi superfluids at zero temperature: the superfluid nonlinear
Schrodinger equation", *Laser Physics* **19**, 642-646 (2009).
- [107] G. Filatrella, L. Salasnich, and B.A. Malomed,
"Application of the Feshbach-resonance management to a tightly confined Bose-Einstein conden-
sate", *Physical Review A* **79**, 045602 (2009).
- [108] L. Salasnich and B.A. Malomed,
"Solitons and solitary vortices in pancake-shaped Bose-Einstein condensates",
Physical Review A **79**, 053620 (2009).

- [109] G. Mazzaella, M. Moratti, M. Salerno, L. Salasnich, and F. Toigo,
 "Atomic Josephson junction with two bosonic species",
Journal of Physics B: At. Mol. Opt. Phys. **42**, 125301 (2009).
- [110] A. Cetoli, L. Salasnich, B.A. Malomed, and F. Toigo,
 "Dynamics of kicked matter-wave solitons in an optical lattice",
Physica D **238**, 1388-1393 (2009).
- [111] **L. Salasnich**,
 "Generalized nonpolynomial Schrodinger equations for matter waves under anisotropic transverse confinement", *Journal of Physics A: Math. Theor.* **42**, 335205 (2009).
- [112] S.K. Adhikari and L. Salasnich,
 "Localization of a Bose-Einstein condensate in a bichromatic optical lattice",
Physical Review A **80**, 023606 (2009).
- [113] G. Mazzaella and L. Salasnich,
 "Collapse of triaxial atomic bright solitons under anisotropic transverse confinement",
Physics Letters A **373**, 4434-4437 (2009).
- [114] G. Gligoric, A. Maluckov, L. Hadzievski, L. Salasnich, and B.A. Malomed,
 "Two routes to the one-dimensional discrete nonpolynomial Schrödinger equation",
Chaos **19**, 043105 (2009).
- [115] L. Salasnich, F. Ancilotto, and F. Toigo,
 "Surface effects for the confined unitary Fermi gas",
Laser Physics Letters **7**, 78-83 (2010).
- [116] L. Salasnich, G. Mazzaella, M. Salerno and F. Toigo,
 "Quantum-tunneling dynamics of a spin-polarized Fermi gas in a double-well potential",
Physical Review A **81**, 023614 (2010).
- [117] G. Mazzaella, M. Moratti, L. Salasnich, and F. Toigo,
 "Nonlinear quantum model for the bosonic Josephson junction with one and two species",
Journal of Physics B: Atom. Mol. Opt. Phys. **43**, 065303 (2010).
- [118] L. Salasnich, B.A. Malomed, and F. Toigo,
 "Competition between symmetry breaking and onset of collapse in weakly coupled atomic condensates", *Physical Review A* **81**, 045603 (2010).
- [119] S.K. Adhikari, B.A. Malomed, L. Salasnich, and F. Toigo,
 "Spontaneous symmetry breaking of a Bose-Fermi mixture
 in a double-well potential",
Physical Review A **81**, 053630 (2010).
- [120] G. Mazzaella and L. Salasnich,
 "Spontaneous symmetry breaking and collapse in bosonic Josephson junctions",
Physical Review A **82**, 033611 (2010).
- [121] A. Biswas, T.K. Das, L. Salasnich, and B. Chakrabarti,
 "Stability of attractive bosonic cloud with van der Waals interaction",
Physical Review A **82**, 043607 (2010).
- [122] L. Salasnich and F. Toigo,
 "Erratum: Extended Thomas-Fermi Density Functional for the Unitary Fermi Gas",
Physical Review A **82**, 059902 (2010).
- [123] L.E. Young, L. Salasnich, and S.K. Adhikari,
 "Dimensional reduction of a binary Bose-Einstein condensate in mixed dimensions",
Physical Review A **82**, 053601 (2010).

- [124] [L. Salasnich](#),
 "Low-temperature thermodynamics of the unitary Fermi gas: superfluid fraction, first sound and second sound", *Physical Review A* **82**, 063619 (2010).
- [125] G. Mazzarella, L. Salasnich, B.A. Malomed, M. Salerno, and F. Toigo,
 "Rabi-Josephson oscillations and self-trapped dynamics in atomic junctions with two bosonic species", *Journal of Physics B: At. Mol. Opt. Phys.* **44**, 035301 (2011).
- [126] [L. Salasnich](#),
 "Condensate formation with three-component ultracold fermions",
Physical Review A **83**, 033630 (2011).
- [127] G. Mazzarella, L. Salasnich, A. Parola, and F. Toigo,
 "Coherence and entanglement in the ground-state of a bosonic Josephson junction: From macroscopic Schrödinger-cat states to separable Fock states",
Physical Review A **83**, 053607 (2011).
- [128] L. Dell'Anna, G. Mazzarella, and L. Salasnich,
 "Condensate fraction of a resonant Fermi gas with spin-orbit coupling in three and two dimensions",
Physical Review A **84**, 033633 (2011).
- [129] A. Biswas, T.K. Das, B. Chakrabarti, and L. Salasnich,
 "Destruction of attractive bosonic cloud due to high spatial coherence in tight trap",
Review Review A **84**, 043631 (2011).
- [130] L. Salasnich and F. Toigo,
 "Viscosity-entropy ratio of the unitary Fermi gas from zero-temperature elementary excitations",
Journal of Low Temperature Physics **165**, 239-248 (2011).
- [131] [L. Salasnich](#),
 "Supersonic and subsonic shock waves in the unitary Fermi gas",
EPL-Europhysics Letters **96**, 40007 (2011).
- [132] [L. Salasnich](#),
 "Condensate fraction in neutron matter",
Physical Review C **84**, 067301 (2011).
- [133] L. Salasnich and B.A. Malomed,
 "Spontaneous Symmetry breaking in linearly coupled disk-shaped Bose-Einstein condensates",
Molecular Physics **109**, 2737-2745 (2011).
- [134] L. Salasnich and B.A. Malomed,
 "Quasi one-dimensional Bose-Einstein condensates in nonlinear lattices",
Journal of Physics B: At. Mol. Opt. Phys. **45**, 055302 (2012).
- [135] F. Ancilotto, L. Salasnich, and F. Toigo,
 "Shock waves in strongly interacting Fermi gas from time-dependent density functional calculations", *Physical Review A* **85**, 063612 (2012).
- [136] L. Salasnich and F. Toigo,
 "Pair condensation in the BCS-BEC crossover of ultracold atoms loaded onto a 2D square lattice",
Physical Review A **86**, 023619 (2012).
- [137] G. Mazzarella, L. Salasnich, and F. Toigo,
 "Finite temperature effects in two-mode bosonic Josephson junctions",
Journal of Physics B: At. Mol. Opt. Phys. **45**, 185301 (2012).
- [138] [L. Salasnich](#),
 "From Narrow to Broad Feshbach Resonances: Condensate Fraction of Cooper Pairs and Preformed Molecules", *Physical Review A* **86**, 055602 (2012).

- [139] L. Salasnich,
 "Enhancement of four reflection shifts by a three-layer surface plasmon resonance",
Physical Review A **86**, 055801 (2012).
- [140] L. Dell'Anna, G. Mazzarella, and L. Salasnich,
 "Tuning Rashba and Dresselhaus spin-orbit couplings: effects on singlet and triplet condensation
 with Fermi atoms", *Physical Review A* **86**, 053632 (2012).
- [141] F. Ancilotto, L. Salasnich, and F. Toigo,
 "Critical velocity, vortex shedding and drag in a unitary Fermi superfluid",
Physical Review A **87**, 013637 (2013).
- [142] L. Salasnich,
 "Three-component Fermi gas with SU(3) symmetry: BCS-BEC crossover in three and two dimen-
 sions", *Laser Physics* **23**, 015503 (2013).
- [143] F. Ancilotto, L. Salasnich, and F. Toigo,
 "Dispersive effects in the unitary Fermi gases",
Journal of Low Temperature Physics **171**, 329 (2013).
- [144] L.E. Young Silva, L. Salasnich, and B. Malomed,
 "Self-trapping of Fermi and Bose gases under spatially modulated repulsive nonlinearity and trans-
 verse confinement", *Physical Review A* **87**, 043603 (2013).
- [145] L. Salasnich,
 "Dynamical properties of the unitary Fermi gas: collective modes and shock waves",
Few-Body Systems **54**, 697-705 (2013).
- [146] L. Dell'Anna, G. Mazzarella, V. Penna, and L. Salasnich,
 "Entanglement entropy and macroscopic quantum states with dipolar bosons in a triple-well po-
 tential", *Physical Review A* **87**, 053620 (2013).
- [147] L. Salasnich and B.A. Malomed,
 "Localized modes in dense repulsive and attractive Bose-Einstein condensates with spin-orbit and
 Raman couplings", *Physical Review A* **87**, 063625 (2013).
- [148] L. Salasnich, P. Comaron, M. Zambon, and F. Toigo,
 "Collective modes in the anisotropic unitary Fermi gas and the inclusion of a backflow term",
Physical Review A **88**, 033610 (2013).
- [149] L. Salasnich, P.A. Marchetti, and F. Toigo,
 "Superfluidity, sound velocity and quasi-condensate of the 2D Fermi gas in the BCS-BEC crossover",
Physical Review A **88**, 053612 (2013).
- [150] M. Rossi and L. Salasnich,
 "Path-integral ground-state and superfluid hydrodynamics of a bosonic gas of hard spheres",
Physical Review A **88**, 053617 (2013).
- [151] L. Salasnich,
 "Two-dimensional quasi-ideal Fermi gas with Rashba spin-orbit coupling",
Physical Review A **88**, 055601 (2013).
- [152] N. Bellomo, G. Mazzarella, and L. Salasnich,
 "Superfluid hydrodynamics of polytropic gases: dimensional reduction and sound velocity",
Journal of Physics A: Math. Theor. **47**, 095201 (2014).
- [153] M. Rossi, L. Salasnich, F. Ancilotto, and F. Toigo,
 "Monte-Carlo Simulations of the Unitary Bose Gas",
Physical Review A (Rapid. Comm.) **89**, 041602(R) (2014).
- [154] L. Barbiero and L. Salasnich,
 "Quantum bright soliton in a one-dimensional optical lattice",
Physical Review A **89**, 063605 (2014).

- [155] M-A. Garcia March, G. Mazzarella, L. Dell'Anna, B. Julia-Diaz, L. Salasnich, and A. Polls, "Josephson physics of spin-orbit coupled elongated Bose-Einstein condensates", *Physical Review A* **89**, 063607 (2014).
- [156] G. Szirmai, G. Mazzarella, and L. Salasnich, "The effect of a laser dip in the semiclassical dynamics of bosonic Josephson junctions", *Physical Review A* **90**, 013607 (2014).
- [157] G. Bighin, L. Dell'Anna, G. Mazzarella, and L. Salasnich, "Pair condensation of polarized fermions in the BCS-BEC crossover", *Journal of Physics B: At. Mol. Opt. Phys.* **47**, 195302 (2014).
- [158] L. Salasnich, W. Cardoso, and B.A. Malomed, "Localized modes in quasi-2D Bose-Einstein condensates with spin-orbit and Rabi couplings", *Physical Review A* **90**, 033629 (2014).
- [159] L. Salasnich, B.A. Malomed, and F. Toigo, "Emulation of lossless excitation-polariton condensates by dual-core optical waveguides: Stability, collective modes, and dark solitons", *Physical Review E* **90**, 043202 (2014).
- [160] A. Ambrosetti, G. Lombardi, L. Salasnich, P.L. Silvestrelli, and F. Toigo, "Polarization of a two dimensional repulsive Fermi gas with Rashba spin-orbit coupling", *Physical Review A* **90**, 043614 (2014).
- [161] L. Barbiero, L. Salasnich, and B.A. Malomed, "Quantum bright solitons in the Hubbard model with site-dependent repulsive interactions", *Physical Review A* **90**, 063611 (2014).
- [162] L. Salasnich and F. Toigo, "Composite bosons in the 2D BCS-BEC crossover from Gaussian fluctuations", *Physical Review A (Rapid. Comm.)* **91**, 011604(R) (2015).
- [163] G. Szirmai, G. Mazzarella, and L. Salasnich, "Tunneling dynamics of bosonic Josephson junctions assisted by a cavity field" , *Physical Review A* **91**, 023601 (2015).
- [164] M. Galante, G. Mazzarella, and L. Salasnich, "Analytical results on quantum entanglement of few bosons in a double-well trap with dipolar interaction", *Romanian Reports in Physics* **67**, 273 (2015).
- [165] L. Salasnich and G. Bighin, "Scattering length of composite bosons in the 3D BCS-BEC crossover" , *Physical Review A* **91**, 033610 (2015).
- [166] M. Rossi, F. Ancilotto, L. Salasnich, and F. Toigo, "Density functional of a trapped Bose gas with tunable scattering length: from weak coupling to unitarity", *European Physical Journal - Special Topics* **224**, 565 (2015).
- [167] F. Sgarlata, L. Salasnich, and G. Mazzarella, "Effective-range signatures in quasi-1D matter waves: sound velocity and solitons", *Journal of Physics B: At. Mol. Opt. Phys.* **48**, 115301 (2015).
- [168] G. Bighin, L. Salasnich, P.A. Marchetti, and F. Toigo, "Beliaev damping of Goldstone sound mode in atomic Fermi superfluids", *Physical Review A* **92**, 023638 (2015).
- [169] F. Ancilotto, M. Rossi, L. Salasnich, and F. Toigo, "Quenched dynamics of the momentum distribution of the unitary Bose gas", *Few Body Systems* **56**, 801 (2015).

- [170] P. Rosson, G. Mazzaella, G. Szirmai, and L. Salasnich,
"Photon-induced Self Trapping and Entanglement of a Bosonic Josephson Junction inside an Optical Resonator", *Physical Review A* **92**, 063604 (2015).
- [171] L. Salasnich and S.K. Adhikari,
"Dimensional reduction and localization of a Bose-Einstein condensate in a quasi-1D bichromatic optical lattice", *Acta Physica Polonica* **128**, 979 (2015).
- [172] G. Bighin and L. Salasnich,
"Finite-temperature quantum fluctuations in two-dimensional Fermi superfluids",
Physical Review B **93**, 014519 (2016).
- [173] L. Salasnich,
"Reliable equation of state for composite bosons in the in the 2D BCS-BEC crossover",
Journal of Superconductivity and Novel Magnetism **29**, 697 (2016).
- [174] L. Salasnich,
"Shock waves in a quasi-one-dimensional Bose-Einstein condensate",
European Physical Journal Plus **131**, 66 (2016).
- [175] L. Barbiero, B.A. Malomed, and L. Salasnich,
"Localized-interaction-induced quantum reflection and filtering of bosonic matter in a one-dimensional lattice guide", *New Journal of Physics* **18**, 055007 (2016).
- [176] F. Baldovin, A. Cappellaro, E. Orlandini, and L. Salasnich,
"Nonequilibrium Statistical Mechanics in One-Dimensional Bose Gases",
Journal of Statistical Mechanics: Theory and Experiments, 063303 (2016).
- [177] L. Salasnich and F. Toigo,
"Zero-point energy of ultracold atomic gases",
Physics Reports **640**, 1 (2016).
- [178] A. Ambrosetti, L. Salasnich, and P.L. Silvestrelli,
"Dynamical spin properties of confined Fermi and Bose systems in presence of spin-orbit coupling",
Journal of Low Temperature Physics **185**, 3 (2016).
- [179] M. Pizzardo, G. Mazzaella, and L. Salasnich,
"Quantum correlations of few dipolar bosons in a double-well potential",
Journal of Low Temperature Physics **185**, 59 (2016).
- [180] L. Salasnich and G. Bighin,
"Quantum fluctuations and vortex-antivortex unbinding in the 2D BCS-BEC crossover",
Journal of Superconductivity and Novel Magnetism **29**, 3103 (2016).
- [181] L. Salasnich,
"Goldstone and Higgs Hydrodynamics in the BCS-BEC crossover",
Condensed Matter **2**, 22 (2017).
- [182] A. Cappellaro and L. Salasnich,
"Thermal field theory of bosonic gases with finite-range effective interaction",
Physical Review A **95**, 033627 (2017).
- [183] L. Salasnich,
"Nonuniversal Equation of State of the Two-Dimensional Bose Gas",
Physical Review Letters **118**, 130402 (2017).
- [184] G. Bighin and L. Salasnich,
"Vortices and antivortices in two-dimensional ultracold Fermi gases",
Scientific Reports **7**, 45702 (2017).
- [185] V. Penna and L. Salasnich,
"Itinerant ferromagnetism of repulsive fermions with Rabi coupling",
New Journal of Physics **19**, 043018 (2017).

- [186] L. Lepori and L. Salasnich,
 "Tuning zero and first sound in ultracold Fermi mixtures with Rabi coupling",
Journal of Statistical Mechanics: Theory and Experiments, 043107 (2017).
- [187] W. Cardoso, L. Salasnich, and B.A. Malomed,
 "Zero-dimensional limit of the two-dimensional Lugiato-Lefever equation",
European Physical Journal D **71**, 112 (2017).
- [188] Z. Chen, Y. Li, B.A. Malomed, and L. Salasnich,
 "Spontaneous symmetry breaking of fundamental states, vortices, and dipoles in two- and one-dimensional linearly coupled traps with cubic self-attractions",
Physical Review A **96**, 033621 (2017).
- [189] A. Cappellaro, F. Macri, G. Bertacco, and L. Salasnich,
 "Equation of state and self-bound droplet in Rabi-coupled Bose mixtures",
Scientific Reports **7**, 13358 (2017).
- [190] F. Cinti, A. Cappellaro, L. Salasnich, and T. Macri,
 "Superfluid filaments of dipolar bosons in free space",
Physical Review Letters **119**, 215302 (2017).
- [191] **L. Salasnich**,
 "Bright solitons in ultracold atoms",
Optical and Quantum Electronics **49**, 409 (2017).
- [192] W. Cardoso, L. Salasnich, and B.A. Malomed,
 "Localized Solutions of the Lugiato-Lefever equation with a focused pump",
Scientific Reports **7**, 16876 (2017).
- [193] A. Cappellaro and L. Salasnich,
 "Finite-range corrections to the thermodynamics of the one-dimensional Bose gas",
Physical Review A **96**, 063610 (2017).
- [194] Z. Denis, A. Tiene, L. Salasnich, and S. Wimberger,
 "Asymmetric many-body loss in a bosonic double well",
Physical Review A **96**, 013602 (2018).
- [195] F. Lingua, L. Lepori, F. Minardi, V. Penna, and L. Salasnich,
 "Collision of impurities with Bose-Einstein condensates",
New Journal of Physics **20**, 045001 (2018).
- [196] M. Faccioli and L. Salasnich,
 "Spontaneous symmetry breaking and Higgs mode: comparing Gross-Pitevskii with nonlinear Klein-Gordon", *Symmetry* **10**, 80 (2018).
- [197] A. Cappellaro, T. Macri, and L. Salasnich,
 "Collective modes across the soliton-droplet crossover in binary Bose mixtures",
Physical Review A **97**, 053623 (2018).
- [198] S.K. Adhikari and L. Salasnich,
 "Vortex lattice in the crossover of a Bose gas from weak coupling to unitarity",
Scientific Reports **8**, 8825 (2018).
- [199] G. Bighin and L. Salasnich,
 "Renormalization of the superfluid density in the 2D BCS-BEC crossover",
International Journal of Modern Physics B **32**, 1840022 (2018).
- [200] A. Cappellaro, F. Toigo, and L. Salasnich,
 "Collisionless Dynamics of Two-Dimensional Bose gases",
Physical Review A **98**, 043605 (2018).

- [201] [L. Salasnich](#),
 “Self-consistent derivation of the generalized Gross-Pitaevskii equation with Lee-Huang-Yang correction”, *Applied Sciences* **9**, 1998 (2018).
- [202] A. Tononi, A. Cappellaro, and L. Salasnich,
 “Condensation and superfluidity of dilute bosons with finite-range interaction”, *New Journal of Physics* **20**, 125007 (2018).
- [203] V. Penna and L. Salasnich,
 ”Triggering itinerant ferromagnetism by means of Rabi coupling”,
Journal of Physics B **52**, 035301 (2019).
- [204] M. Ferraretto and L. Salasnich,
 ”Effects of long-range hopping in the Bose-Hubbard model”,
Physical Review A **99**, 013618 (2019).
- [205] [L. Salasnich](#),
 ”Power spectrum and diffusion of the Amari neural field”,
Symmetry **11**, 134 (2019).
- [206] M. Faccioli and L. Salasnich,
 ”Quantum fluctuations in the superfluid-Mott phase transition”,
Physical Review A **99**, 023614 (2019).
- [207] A. Cappellaro and L. Salasnich,
 ”Superfluids, Fluctuations and Disorder”,
Applied Sciences **9**, 1498 (2019).
- [208] A. Tononi, J. Wang, and L. Salasnich,
 ”Quantum solitons in spin-orbit coupled Bose-Bose mixtures”,
Physical Review A **99**, 063618 (2019).
- [209] S. Bera, L. Salasnich, and B. Chakrabarti,
 Correlation dynamics of dipolar bosons in 1D triple well optical lattice,
Symmetry **11**, 909 (2019).
- [210] L. Salasnich, A.V. Vagov, A.A. Shanenko, J.A. Aguiar, and A. Perali,
 ”Screening of pair fluctuations in superconductors with coupled shallow and deep bands: a route to higher temperature superconductivity”,
Physical Review B **100**, 064510 (2019).
- [211] G. Bighin, N. Defenu, I. Nandori, L. Salasnich, and A. Trombettoni,
 ”Berezinskii-Kosterlitz-Thouless paired phase in coupled XY models”,
Physical Review Letters **123**, 100601 (2019).
- [212] A. Tononi and L. Salasnich,
 ”Bose-Einstein condensation on the surface of a sphere”,
Physical Review Letters **123**, 160403 (2019).
- [213] C. D’Errico, A. Burchianti, M. Prevedelli, L. Salasnich, F. Ancilotto, M. Modugno, F. Minardi, and C. Fort, ”Observation of Quantum Droplets in a Heteronuclear Bosonic Mixture”,
Physical Review Research **1**, 033155 (2019).
- [214] F. De Bettin, A. Cappellaro, and L. Salasnich,
 “Action functional for a particle with damping”,
Condensed Matter **4**, 81 (2019).
- [215] A. Burchianti, C. D’Errico, M. Prevedelli, L. Salasnich, F. Ancilotto, M. Modugno, F. Minardi, and C. Fort, ”A dual-species Bose-Einstein condensate with attractive interspecies interactions”,
Condensed Matter **5**, 21 (2020).

- [216] M. Calzavara and L. Salasnich,
 “Dark solitons of the unitary Bose gas”,
Symmetry **12**, 957 (2020).
- [217] A. Tononi, F. Toigo, S. Wimberger, A. Cappellaro, and L. Salasnich,
 ”Dephasing and rephasing and phase oscillations in tunneling quasicondensates”,
New Journal of Physics **22**, 073020 (2020).
- [218] A. Cappellaro and L. Salasnich,
 ”Effective field theory of bosons with finite-range interaction in a disordered environment”,
Physical Review A **101**, 053628 (2020).
- [218] A. Cappellaro and L. Salasnich,
 ”Shift of the critical temperature in superconductors: a self-consistent approach”,
Scientific Reports **10**, 9088 (2020).
- [220] A. Tononi, F. Cinti, and L. Salasnich,
 ”Quantum Bubbles in Microgravity”,
Physical Review Letters **125**, 010402 (2020).
- [221] F. Pascucci, and L. Salasnich,
 ”Josephson dynamics in the 2D BCS-BEC crossover”,
Physical Review A **102**, 013325 (2020).
- [222] R. Ravisankar, T. Sriraman, L. Salasnich, and P. Muruganandam,
 ”Quenching dynamics of the bright solitons and other localized states in spin-orbit coupled Bose-Einstein condensates”,
Journal of Physics B: At. Mol. Opt. Phys. **53**, 195301 (2020).
- [223] J. Bera, S. Ghosh, L. Salasnich, and U. Roy,
 ”Matter-wave fractional revivals in a ring waveguide”,
Physical Review A **102**, 063323 (2020).
- [224] A. Cidrim, L. Salasnich, and T. Macri,
 ”Soliton trains after interaction quenches in Bose mixtures”,
New Journal of Physics **23**, 023022 (2021).
- [225] S. Wimberger, G. Manganelli, A. Brollo, and L. Salasnich,
 ”Finite-size effects in a bosonic Josephson junction”,
Physical Review A **103**, 023326 (2021).
- [226] [L. Salasnich](#),
 ”Acoustic plasmons in graphene sandwiched between two metallic slabs”,
Symmetry **13**, 684 (2021).
- [227] L. Salasnich and F. Sattin,
 ”Collisionless sound of bosonic superfluids in lower dimensions”,
Physical Review A **103**, 043324 (2021).
- [228] K. Furutani, A. Tononi, and L. Salasnich,
 ”Sound modes in collisional superfluid Bose gases”,
New Journal of Physics **23**, 043043 (2021).
- [229] A. Tononi, A. Cappellaro, G. Bighin, and L. Salasnich,
 ”Propagation of first and second sound in a two-dimensional Fermi superfluid”,
Physical Review A **103**, L061303 (2021).
- [230] F. Binanti, K. Furutani, and L. Salasnich,
 ”Dissipation and fluctuations in elongated bosonic Josephson junctions”,
Physical Review A **103**, 063309 (2021).

- [231] K. Furutani and L. Salasnich,
 "Quantum and thermal fluctuations in the dynamics of a resistively and capacitively shunted Josephson junction",
Physical Review B **104**, 014519 (2021).
- [232] F. Pascucci, A. Perali, and L. Salasnich,
 "Reliability of the Ginzburg-Landau theory in the BCS-BEC crossover by including Gaussian fluctuations for 3D attractive fermions",
Condensed Matter **6**, 49 (2021).
- [233] [L. Salasnich](#),
 "Bose-Einstein Condensate in an Elliptical Waveguide",
SciPost Physics Core **5**, 015 (2022).
- [234] A. Tononi, A. Pelster, and L. Salasnich,
 "Topological superfluid transition in microgravity bubble-trapped condensates",
Physical Review Research **4**, 013122 (2022).
- [235] K. Furutani and L. Salasnich,
 "Superfluid properties of bright solitons in a ring",
Physical Review A **105**, 033320 (2022).
- [236] K. Furutani, J. Tempere, and L. Salasnich,
 "Quantum effective action of the bosonic Josephson Junction",
Physical Review B **105**, 134510 (2022).
- [237] G. Bighin, A. Cappellaro, and L. Salasnich,
 "Unitary Fermi superfluid near the critical temperature: thermodynamics and sound modes from elementary excitations",
Physical Review A **105**, 063329 (2022).
- [238] A. Brollo, A. Veronese, and L. Salasnich,
 "Anyonic Josephson junctions",
Physical Review A **106**, 023308 (2022).
- [239] L. Salasnich, A. Cappellaro, K. Furutani, A. Tononi, and G. Bighin,
 "First and second sound in two-dimensional bosonic and fermionic systems",
Symmetry **14**, 2182 (2022).
- [240] L. Dell'Anna, F. De Bettin, and L. Salasnich,
 "Rabi coupled fermions in the BCS-BEC crossover",
Condensed Matter **7**, 59 (2022).
- [241] L. Salasnich,
 "Density of states of the unitary Fermi gas and the Schwarzschild black hole",
Symmetry **15**, 350 (2023).
- [242] S. De Palo, E. Orignac, R. Citro, and L. Salasnich,
 "Crossover from three dimensions to one dimension in a dipolar Bose gas under transverse confinement", *Condensed Matter* **8**, 26 (2023).
- [243] F. Lorenzi, A. Bardin, and L. Salasnich,
 "On-shell approximation for the s-wave scattering theory",
Physical Review A **107**, 033325 (2023).
- [244] K. Furutani, A. Perali, and L. Salasnich,
 "Berezinskii-Kosterlitz-Thouless phase transition with Rabi coupled bosons",
Physical Review A **107**, L041302 (2023).
- [245] A. Tononi and L. Salasnich,
 "Low-dimensional quantum gases in curved geometries",
Nature Reviews Physics **5**, 398 (2023).

- [246] K. Furutani and L. Salasnich,
"Fokker-Planck equations for a trapped particle in a quantum-thermal Ohmic bath: General theory and applications to Josephson junctions",
AAPPS Bulletin **33**, 19 (2023).
- [247] Y.O. Nikolaieva, L. Salasnich, and A.I. Yakimenko,
"Engineering phase and density of Bose-Einstein condensates in curved waveguides with toroidal topology",
New Journal of Physics **25**, 103003 (2023).
- [248] A. Ambrosetti, P.L. Silvestrelli, and L. Salasnich,
"Superfluidity meets solid state: frictionless mass-transport through a (5,5) carbon nanotube",
Physical Review Letters **131**, 206301 (2023).

Papers in Volumes and Other Scientific Journals

- [v1] L. Demattè, V.R. Manfredi, and L. Salasnich,
"The Onset of Chaos in the SU(3) Nuclear Model",
in G.F. Dell'Antonio, S. Fantoni and V.R. Manfredi (eds.), *From Classical to Quantum Chaos*, SIF Proceedings, vol. **41**, pp. 111-122; (Compositori Editrice, Bologna, 1993). ISBN: 88-7794-056-5
- [v2] V.I. Inozemtsev, V.R. Manfredi, and L. Salasnich,
"Level density fluctuations in the 1D Heisenberg model",
JINR Rapid Communications **59**, 6-15 (1993).
- [v3] J.M.G. Gomez, V.R. Manfredi, and L. Salasnich,
"Spectral Statistics of Large Shell Model Calculations",
in A. Covello (ed.), *New Perspectives in Nuclear Structure*, pp. 225-233; (World Scientific, Singapore, 1996). ISBN-10: 9810223595
- [v4] V.R. Manfredi and L. Salasnich,
"New Results on Quantum Chaos in Atomic Nuclei",
invited talk at the International Conference on 'Large-Scale Collective Motion of Atomic Nuclei',
June 1996, Brolo (Italy),
in G. Giardina, G. Fazio and M. Lattuada (eds.), *Large-Scale Collective Motion of Atomic Nuclei*,
pp. 357-366 (World Scientific, Singapore, 1997). ISBN-10: 9810230451
- [v5] V.R. Manfredi and L. Salasnich,
"Coexistence of Ordered and Chaotic States in Nuclear Structure",
in G. Reffo, A. Ventura and C. Grandi (eds.), *Nuclear Data for Science and Technology*, SIF Proceedings, vol. **59**, pp. 691-693 (Compositori Editrice, Bologna, 1997). ISBN: 88-7794-114-6
- [v6] M. Morandi Cecchi and L. Salasnich,
"The Shallow Water Equations: State of the Art and New Trends",
invited review paper,
in M. Hafez and K. Oshima (eds.), *Computational Fluid Dynamics Review 1998*, pp. 972-993 (World Scientific, Singapore, 1998). ISBN: 978-981-02-3564-2
- [v7] J.M.G. Gomez, V.R. Manfredi, and L. Salasnich,
"Large Shell Model Calculations for Calcium Isotopes: Spectral Statistics and Chaos",
in A. Covello (ed.), *Highlights of Modern Nuclear Structure*, Proceedings of the 6th Spring Seminar
on Nuclear Physics, pp. 233-236 (World Scientific, Singapore, 1999). ISBN: 981-02-3708-1
- [v8] L. Salasnich, A. Parola, and L. Reatto,
"Shell Effects and Phase Separation in a Trapped Multi-Component Fermi System",
in Proceedings 'Theoretical Nuclear Physics in Italy', Proceedings of the 8th Conference on Problems
in Theoretical Nuclear Physics, 18-20 October 2000, Cortona (Italy), pp. 238-246 Ed. G. Pisent *et al.*
(eds.) (World Scientific, Singapore, 2001). ISBN: 978-981-02-4603-7
- [v9] V.R. Manfredi and L. Salasnich,
"Anomalous Spectral Statistics of the Asymmetric Rotor Model",
in A. Covello (ed.) 'Challenges of Nuclear Structure', Proceedings 7th International Spring Seminar
on Nuclear Physics, pp. 513-521 (World Scientific, Singapore, 2002). ISBN: 981-02-4725-7
- [v10] **L. Salasnich**,
"Degenerate Quantum Gases and Bose-Einstein Condensation",
invited talk at the International Conference 'Bexbach Colloquium in Science', 27-30 October 2000,
Bexbach (Germany), in M. Robnik and A. Ruffing (eds.) *Communications of the Bexbach Colloquium
on Science 2000*, vol. **1**, pp. 69-90 (Shaker Verlag, Aachen, 2002). ISBN-10: 3832215174
- [v11] V.R. Manfredi, V. Penna, and L. Salasnich,
"Semiclassical Origin of the Pathological Behavior in the Spectral Statistics of the Asymmetric Rotor
Model", in 'Theoretical Nuclear Physics in Italy', Proceedings of the 9th Conference on Problems
in Theoretical Nuclear Physics, Ed. S. Boffi *et al.*, pp. 291-298 (World Scientific, Singapore, 2003).
ISBN: 981-238-352-2

- [v12] [L. Salasnich](#),
 "Solitary-waves of the Nonpolynomial Schrödinger Equation: Bright Solitons in Bose-Einstein Condensates", invited paper, in C.V. Benton (ed.) '*Focus on Mathematical Physics Research*', pp. 193-201 (Nova Science Publishers, New York, 2004). ISBN: 1-59033-923-1
- [v13] J.M.G. Gomez, V.R. Manfredi, A. Relano, and L. Salasnich,
 "Semiclassical Quantization of the Triaxial Rigid Rotator: Density of States and Spectral Statistics", in '*Key Topics in Nuclear Structure*', A. Covello (ed.), Proceedings 8th International Spring Seminar on Nuclear Physics, pp. 567-576 (World Scientific, Singapore, 2005). ISBN-10: 9812560939
- [v14] [L. Salasnich](#),
 Fisica, Riduzionismo e Complessità,
 Atti Acc. Rov. Agiati, a. 260, 2010, serie VIII, vol. X, B: 29-33.
- [v15] [L. Salasnich](#),
 "Condensate fraction in metallic superconductors and ultracold atomic vapors",
 in A. Reimer (ed.) '*Horizons in World Physics*', vol. **271**, chapter 6 (Nova Science Publishers, New York, 2011). ISBN: 978-1-61122-226-5
- [v16] B.A. Malomed, L. Salasnich, and F. Toigo,
 "Spontaneous symmetry-breaking in mixed superfluid of fermions and bosons trapped in double-well potentials", in A. Reimer (ed.) '*Horizons in World Physics*', vol. **271**, chapter 7 (Nova Science Publishers, New York, 2011). ISBN: 978-1-61122-226-5
- [v17] [L. Salasnich](#),
 "Contact intensity and extended hydrodynamics in the BCS-BEC crossover" in R. Carretero et al. (eds.) '*Localized Excitations in Nonlinear Complex Systems*', pp. 131-146 (Springer, New York, 2014).
- [v18] [L. Salasnich](#),
 "Fermionic condensation in ultracold atoms, nuclear matter and neutron stars",
Journal of Physics: Conference Series **497**, 012026 (2014).
- [v18] [L. Salasnich](#),
 "Discrete bright solitons in Bose-Einstein condensates and dimensional reduction in quantum field theory", in J.F.R. Archilla, N. Jiménez, V.J. Sánchez-Morcillo, and L.M. García-Raffi (eds.), Quodons in Mica: Nonlinear Localized Travelling Excitations in Crystals, Springer Series in Materials Science, Vol. **221**, pp. 455-472, ISBN: 978-3-319-21044-5 (2015).
- [v20] G. Bighin and L. Salasnich,
 "Gaussian fluctuations in the two-dimensional BCS-BEC crossover: finite temperature properties",
Journal of Physics: Conference Series **691**, 012018 (2016).
- [v21] [L. Salasnich](#),
 "Le origini della fisica moderna e contemporanea",
 Atti Acc. Rov. Agiati, a. 268, 2018, serie IX, vol. VIII, B: 37-52.
- [v22] F. Sattin, A. Bonato, and L. Salasnich,
 "Diffusion Equations in Inhomogeneous Media from the Master Equation", Nonlinear Systems, vol. 1 - Mathematical Theory and Computational Methods, Eds. V. Carmona, J. Cuevas-Maraver, F. Fernandez-Sanchez, E. Garcia-Medina, pp. 295-313 (Springer, 2018).
- [v23] V. Penna, L. Salasnich,
 "Gli stati coerenti in meccanica quantistica",
 Atti Acc. Rov. Agiati, a. 270, 2020, serie X, vol. II, B: 47-65.

Books with ISBN

- [b1] [L. Salasnich](#),
PRECORSO DI MATEMATICA CON ELEMENTI DI CALCOLO DIFFERENZIALE.
CLEUP Editore, Padova, 2005. ISBN: 88-7178-697-1.
Copies sold: 120.
- [b2] L. Maccone, L. Salasnich,
FISICA MODERNA. MECCANICA QUANTISTICA, CAOS E SISTEMI COMPLESSI.
Carocci Editore, Roma, 2008. ISBN: 978-88-4304-725-3.
Copies sold: > 500 (reprint, 2009).
- [b3] [L. Salasnich](#),
ELEMENTI DI CALCOLO DIFFERENZIALE ED INTEGRALE.
CLEUP Editore, Padova, 2009. ISBN: 978-88-6129-421-9.
Copies sold: 176.
- [b4] G. Mazzarella, L. Salasnich,
INTRODUZIONE ALLA FISICA PER LE SCIENZE BIO-MEDICHE E NATURALI.
Libreria Internazionale Cortina Editore, Padova, 2010. ISBN: 978-88-7784-322-7.
Copies sold: 70.
- [b5] [L. Salasnich](#),
QUANTUM PHYSICS OF LIGHT AND MATTER.
A Modern Introduction to Photons, Atoms and Many-Body Systems.
Springer, 2014. ISBN: 978-3-319-05178-9.
Second edition, 2017 ISBN: 978-3-319-52997-4.
Copies sold: > 500 (reprint 2016).
- [b6] [L. Salasnich](#),
MODERN PHYSICS.
Introduction to Statistical Mechanics, Relativity, and Quantum Physics.
Springer, 2022. ISBN: 978-3-030-93743-0.

Impact Factors in the publications of Luca Salasnich

Peer-Reviewed Journal	Impact Factor (2022)	Number of Papers	(single-authored)
Nature Rev. Phys.	38.5	1	0
Phys. Rep.	30.0	1	0
Phys. Rev. Lett.	8.6	8	1
Comp. Meth. Appl. Mech. Eng.	7.2	1	0
Phys. Rev. D	5.0	1	1
Sci. Rep.	4.6	5	0
Riv. Nuovo Cim.	4.5	1	0
Phys. Lett. B	4.4	1	0
Phys. Rev. Res.	4.2	2	0
Physica D	4.0	1	0
Phys. Rev. B	3.7	4	0
SciPost Phys. Core	3.6	1	1
Eur. Phys. J. Plus	3.4	1	1
Nuovo Cim. B (Eur. Phys. J. Plus)	3.4	3	2
New J. Phys.	3.3	9	0
J. Struct. Geol.	3.1	1	0
Phys. Rev. C	3.1	3	1
Optical Quantum Electr.	3.0	1	1
Chaos	2.9	1	0
Physica Scripta	2.9	1	0
Phys. Rev. A	2.9	98	8
Eur. Phys. J. ST	2.8	1	0
Nuovo Cim. A (Eur. Phys. J. A)	2.7	1	0
Zeit. Phys. A (Eur. Phys. J. A)	2.7	1	0
Symmetry-Basel	2.7	7	3
Applied Science-Basel	2.7	2	1
Meccanica	2.7	1	1
Rom. Rep. Phys.	2.7	1	0
Phys. Lett. A	2.6	3	1
Phys. Rev. E	2.4	6	1
J. Stat. Mech.	2.4	2	0
J. Phys. A: Math. Gen./Theor.	2.1	6	2
J. Low Temp. Phys.	2.0	6	0
Mod. Phys. Lett. B	1.9	6	3
EPL	1.8	1	1
J. Sup. Nov. Magn.	1.8	2	1
Eur. Phys. J. D	1.8	2	0
Condensed Matter-Basel	1.7	6	1
Molecular Physics	1.7	1	0
Laser Phys. Lett.	1.7	1	0
Int. J. Mod. Phys. B	1.7	7	4
Few-Body Systems	1.6	2	1
J. Phys. B: At.Mol.Opt.	1.6	14	1
Mod. Phys. Lett. A	1.4	3	2
J. Math. Phys.	1.3	2	2
Prog. Theor. Phys. Supp. (2012)	1.249	3	2
Laser Phys.	1.2	9	7
Int. J. Mod. Phys. E	1.1	3	0
Acta Phys. Pol. A	0.7	1	0
Phys. Atom. Nucl. (2019)	0.458	1	1
AAPPS Bulletin		1	0
TOTAL		248	51

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