

Daoud Mohammed

AS-ICTP regular associate 2009-2016

List of Publications 2009-2016

- 1. M. Daoud** and M. Kibler
Phase operators, temporally stable phase states, mutually unbiased bases and exactly solvable quantum systems
J. Phys. A: Math. Theor. **43** (2010) 115303 .
- 2. M. Daoud**, M. El Bouziani, R. Houca and A. Jellal
Magnetism of two coupled harmonic oscillators
Journal of Statistical Mechanics: Theory and Experiment. P01012 (2010)
- 3. M. Daoud**, A. Jellal and A. Oueld Guejdi
Symplectic Fluctuations for Electromagnetic Excitations of Hall Droplets
Journal of Statistical Mechanics: Theory and Experiment (2010) P07017.
- 4. M. Daoud**, A. Jellal and A. Oueld Guejdi
Electromagnetic Excitations of A_r Quantum Hall Droplets
International Journal of Physics A **25**(2010) 3675.
- 5. M. Daoud**, A. Jellal and A. Oueld Guejdi
Electromagnetic Excitations of Hall Systems on Four Dimensional Space.
Inter. Jour. of Geometric Methods in Modern Physics 8 (2011) 1465.
- 6. M. Daoud** and H. Ez-zahraouy
Three dimensional quantum key distribution in the presence of several eavesdroppers
Physica Scripta **84** 045018 (2011).
- 7. M. Daoud** and E. B. Choubabi
Entangled phase states via quantum beam splitter
Optics Communications 284 (2011) 4535.
- 8. M. Daoud** and E. H. El Kinani
Extended Weyl–Heisenberg algebra, phase operator, unitary depolarizers and generalized Bell states
Physics Letters A **375** (2011) 2492.
- 9. M. Daoud**, A. Jellal, E. B. Choubabi and E. H. El Kinani
Bipartite and tripartite entanglement of truncated harmonic oscillator coherent states via beam splitters
J. Phys. A: Math. Theor. **44** (2011) 325301.

10. **M. Daoud** and M. Kibler
Phase operators, phase states and vector phase states for SU_3 and $SU_{2,1}$
J. Math. Phys. **52** (2011) 082101
11. **M. Daoud** and H. Ez-zahraouy
Quantum encoding based on optical phase states and mutually unbiased bases in the presence of several eavesdroppers
Journal of Russian Laser Research **33** (2012) 20.
12. **M. Daoud** and E. B. Choubabi
Bipartite entanglement of multipartite coherent states using quantum network of beam splitters
International Journal of Quantum Information **10** (2012) 1250009.
13. A. Jellal, A. El Mouhafid and **M. Daoud**
Massless Dirac Fermions in Electromagnetic Field
Journal of Statistical Mechanics: Theory and Experiment (2012) P01021.
14. **M. Daoud** and M. Kibler
Bosonic and k -fermionic coherent states for a class of polynomial Weyl-Heisenberg algebras
J. Phys. A: Math. Theor. **45** (2012) 244036.
15. **M. Daoud** and M. Kibler
Generalized coherent states for polynomial Weyl-Heisenberg algebras.
AIP Conference Proceedings 1472 (2012) 60 .
16. **M. Daoud** and R. Ahl Laamara
Quantum discord of Bell cat-states under amplitude damping
J. Phys. A: Math. Theor. **45** (2012) 325302.
17. **M. Daoud** and R. Ahl Laamara
Quantum discord for multipartite coherent states interpolating between Werner and Greenberger-Horne-Zeilinger states
International Journal of Quantum Information **10** (2012) 1250060.
18. **M. Daoud** and R. Ahl Laamara
Geometric Measure of Pairwise Quantum Discord for Superpositions of Multipartite Generalized Coherent States
Phys. Lett. A **376** (2012) 2361.
19. **M. Daoud** and M. Kibler
Phase states and coherent states for generalized Weyl-Heisenberg algebras.
Nankai Series in Pure, Applied Mathematics and Theoretical Physics: Symmetries and Groups in Contemporary Physics, Volume **11** (2013) 289.
20. **M. Daoud**, R. Ahl Laamara and R. Essaber
Quantum correlations dynamics of quasi-Bell states
Int. J. Quantum Inform. **11** (2013) 1350057
21. **M. Daoud**, R. Ahl Laamara and W. Kaydi
Multipartite quantum correlations in even and odd spin coherent states
J. Phys. A: Math. Theor. **46** (2013) 395302
22. **M. Daoud**, R. Ahl Laamara, R. Essaber and W. Kaydi

Global quantum correlations in tripartite nonorthogonal states and monogamy properties
Physica Scripta **89** (2014) 065004.

23. M. Daoud, R. Ahl Laamara and W. Kaydi
Unified scheme for correlations using linear relative entropy
Physics Letters A **378** (2014) 3501.

24. M. Daoud, R. Ahl Laamara, and H. El Hadfi
Pairwise quantum and classical correlations in multi-qubits states via linear relative entropy
Int. J. Quantum Inform. **12** (2014) 1450035

25. W. S. Chung and **M. Daoud**
Generalized fermion algebra
Modern Physics Letters A **29** (2014) 1450045.

25. M. Daoud, R. Ahl Laamara and S. Seddik
A recursive approach for geometric quantifiers of quantum correlations in multiqubit Schrödinger cat states
Int. J. Mod. Phys. B **29** (2015) 1550124

26. M. Daoud and W. S. Chung
A polynomial class of $u(2)$ algebras
Int. J. Geom. Methods Mod. Phys. **12** 1560025 (2015)

27. M. Daoud , W. El Kaydi and H. El Hadfi
Distribution of geometric quantum discord in photon-added coherent states
Mod. Phys. Lett. B **29** (2015) 1550239

28 M. Daoud, R. Ahl Laamara and S. Seddik
Hilbert-Schmidt measure of pairwise quantum discord for three-qubit X states
Reports on Mathematical Physics **76** (2015) 207

29 J. El qars, **M. Daoud** and R. Ahl Laamara
Entanglement versus Gaussian quantum discord in a double-cavity opto-mechanical system
International Journal of Quantum Information **13** (2015) 1550041

30. M. Daoud , W. El Kaydi and H. El Hadfi
Quantum Discord in Photon-Added Glauber Coherent States of GHZ-Type
Open Systems and Information Dynamics **22** (2015) 1550001

31. M. Mansour and **M. Daoud**
Fractional Spin Through Quantum Affine Algebra $\hat{A}(n)$ and Quantum Affine Super-algebra $\hat{A}(n, m)$
EJTP **12** (2015) 155

32. J. El qars, **M. Daoud** and R. Ahl Laamara
Non-classical correlations in a two-mode optomechanical system
International Journal of Modern Physics B **30** (2016) 1650134.