

Mohammed Daoud

Department of Physics, Faculty of Sciences

University Ibn Zohr, Agadir, Morocco

Email: m_daoud@hotmail.com

List of publications produced during my associateship

1. M. Daoud and A. Jellal

Quantum Hall effect on Flag manifold

Int. J. Mod. Phys. A **23** (2008) 3129.

2. M. Daoud and A. Hamama

Noncommutative scalar fields from symplectic deformation

Journal of Mathematical Physics **49**(2008) 023508.

3. M. Daoud and A. Hamama

Symplectic deformations, Noncommutative scalar fields and Fractional quantum Hall effect

Int. J. Mod. Phys. A **23** (2008) 2591 .

4. M. Daoud and A. Hamama

Chiral bosons on Bargmann space associated with A_r statistics

Journal of Physics A: Mathematical and Theoretical **41** (2008) 205205.

5. 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 .

6. 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)

7. 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.

- 8. M. Daoud**, A. Jellal and A. Oueld Guejdi
Electromagnetic Excitations of A_r Quantum Hall Droplets
International Journal of Physics A **25**(2010) 3675.
- 9. 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.
- 10. M. Daoud** and H. Ez-zahraouy
Three dimensional quantum key distribution in the presence of several eavesdroppers
Physica Scripta **84** 045018 (2011).
- 11. M. Daoud** and E. B. Choubabi
Entangled phase states via quantum beam splitter
Optics Communications 284 (2011) 4535.
- 12. 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.
- 13. 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.
- 14. 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
- 15. 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.
- 16. 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.
- 17. A. Jellal**, A. El Mouhafid and **M. Daoud**
Massless Dirac Fermions in Electromagnetic Field
Journal of Statistical Mechanics: Theory and Experiment (2012) P01021.

- 18. 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.
- 19. M. Daoud** and M. Kibler
Generalized coherent states for polynomial Weyl-Heisenberg algebras.
AIP Conference Proceedings 1472 (2012) 60 .
- 20. M. Daoud** and R. Ahl Laamara
Quantum discord of Bell cat-states under amplitude damping
J. Phys. A: Math. Theor. **45** (2012) 325302.
- 21. 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.
- 22. 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.
- 23. M. Daoud**, R. Essaber and R. Ahl Laamara
Geometric quantum discord for multi-mode even and odd Glauber states.
African Journal of Mathematical Physics **11** (2012) 11.
- 24. M. Daoud**, W. Kaydi and R. Ahl Laamara
Entanglement in n -partite coherent states interpolating between W_n and GHZ_n states.
African Journal of Mathematical Physics **11** (2012) 1.
- 25. M. Daoud** and H. Ez-zahraouy
Higher dimensional quantum key distribution encoded in optical states and mutually unbiased bases.
African Journal of Mathematical Physics **11** (2012) 19.
- 26. 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.
- 27. M. Daoud**, R. Ahl Laamara and R. Essaber
Quantum correlations dynamics of quasi-Bell states
Int. J. Quantum Inform. **11** (2013) 1350057

- 28. 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
- 29. 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.
- 30. M. Daoud**, R. Ahl Laamara and W. Kaydi
Unified scheme for correlations using linear relative entropy
Physics Letters A **378** (2014) 3501.
- 31. 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
- 32. W. S. Chung** and **M. Daoud**
Generalized fermion algebra
Modern Physics Letters A **29** (2014) 1450045.
- 33. 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 DOI: 10.1142/S0217979215501246
- 34. M. Daoud** and W. S. Chung
A polynomial class of $u(2)$ algebras
Int. J. Geom. Methods Mod. Phys. DOI: 10.1142/S0219887815600257
- 35. M. Daoud** , W. El Kaydi and H. El Hadfi
Distribution of geometric quantum discord in photon-added coherent states
Accepted in Modern Physics Letters B (2015)
- 36. M. Daoud**, R. Ahl Laamara and S. Seddik
HilbertSchmidt measure of pairwise quantum discord for three-qubit X states
Reports on Mathematical Physics, **76** (2015) 207
- 37. J. Elqars**, **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