Daoud Mohammed

Professeur de l'Enseignement Supérieur

Laboratoire de la Physique de la Matière et du Rayonnement.
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Biographie:

Mohammed Daoud a obtenu le doctorat d'université en physique théorique de l'université Claude Bernard Lyon-I et le doctorat d'état en physique mathématique de l'université Mohamed V (Rabat). Il est professeur de l'enseignement supérieur au département de physique de la faculté des sciences de l'université Ibnou Zohr (Agadir). Il assure actuellement la direction du laboratoire de la physique de la matière et du rayonnement.

Il a visité comme chercheur, professeur invité ou membre associé plusieurs universités ou centres de recherches à l'étranger (Allemagne, Canada, Espagne, Etats Unis, France, Italie, Pologne). Il est responsable ou partenaire de plusieurs projets de recherche aussi bien au niveau national que international.

Le professeur Mohammed Daoud est membre fondateur du groupement national de recherches-information quantique (GNDR-IQ). Il est actuellement le coordonnateur national de ce groupement, qui regroupe la majorité des chercheurs nationaux, travaillant en physique quantique de l'information. Il est vice président et membre fondateur de la Société Marocaine de Physique Mathématique. Il est membre fondateur de plusieurs réseaux scientifiques nationaux (RNPT, RENAPT, RHEMAP) et internationaux à l'instar du "ICTP Regional Network: Novel Approaches to Mesoscopic Phenomena" regroupant les pays: Arménie, Brésil, Turquie et Maroc.

Il a supervisé plusieurs travaux de recherche scientifique, thèses de doctorat et divers programmes de formations approfondies en physique théorique et mathématique. Il a publié une centaine de travaux de recherches originaux parus pour la plus part dans des revues de renom.

Les travaux de Mohammed Daoud en physique quantique portent sur les théories des processus d'interaction rayonnement-matière, la théorie de la cohérence quantique et les systèmes des états cohérents et intelligents, l'effet Hall quantique, les statistiques quantiques fractionnaires, la supersymétrie fractionnaire, les phénomènes d'intrication dans les systèmes quantiques, la cryptographie quantique et le calcul quantique.

Les travaux de recherches de Mohammed Daoud en physique mathématique portent sur la théorie des groupes et leurs représentations pour tirer profit des symétries dans les systèmes quantiques. Il s'est intéressé également aux algèbres quantiques pour étudier les symétries déformées. Il a utilisé aussi les méthodes de la géométrie algébrique et symplectique pour expliquer la transition quantique-classique et fournir une description géométrique des phénomènes de décohérence quantique.

Mohammed Daoud est membre de plusieurs comités d'experts scientifiques (CNRST-Maroc, CONICYT-Chile, CNCS-Roumanie). Il est membre éditeur de Journal of Physics A: Mathematical and general et Africain journal of Mathematical Physics. Il est aussi rapporteur pour le compte de nombreux journaux internationaux.

Mohammed Daoud a organisé plusieurs conférences nationales et internationales en collaboration avec des partenaires nationaux et étrangers. Il a initié un cycle régulier de rencontres thématiques (sous forme de mini écoles) pour que les chercheurs marocains puissent se rencontrer et discuter les récents développements en physique quantique de l'information, physique théorique et physique mathématique. Mohammed Daoud dispose de nombreuses collaborations avec des collègues marocains et étrangers autours de différentes thématiques relevant de ses domaines d'expertise.

Mohammed Daoud a été élu, en 2009, membre associé régulier au centre International de Physique Théorique (ICTP) et a été nommé, en 2012 par le ministre de l'enseignement supérieur, expert au Centre National de la Recherche Scientifique et Technique. Il est membre de sociétés scientifiques savantes comme la prestigieuse "International Association of Mathematical Physics".

CURRICULUM VITAE

Daoud Mohammed
48 years, married, 1 daughter
Professor at University Ibnou Zohr
Department of Physics
Faculty of Sciences
Agadir, Morocco.
email: m_daoud@hotmail.com
Phone number: 06 68 06 43 93.

Degrees

1988 *Licence és Sciences Physiques*, University Mohammed V, Rabat, Morocco.

1989: *Diplôme d'études approfondies* (DEA) in Theoretical Physics from University Claude Bernard Lyon 1, France.

1992: *Diplôme de Doctorat d'université* in Theoretical Physics from University Claude Bernard Lyon 1, France.
Processus d'absorption multiphotonique pour des ions de transition et méthodes d'adaptation à la symétrie.

1997: *Diplôme de Doctorat d'état* in Mathematical Physics from University Mohammed V, Rabat, Morocco.
Rôle des symétries dans les processus multiphotoniques et les statistiques quantiques intermédiaires.

Academic positions

1993-1995: *Attaché temporaire à l'enseignement et la recherche* (ATER), University Claude Bernard Lyon 1, France.

1995-1997: *Maître assistant*, University Ibnou Zohr, Agadir, Morocco.

1997-2001: *Maître de Conférences*, University Ibnou Zohr, Agadir, Morocco.

2001-2006: *Professeur de L'enseignement Supérieur-Grade A*, University Ibnou Zohr, Agadir, Morocco.

2006-Now: *Professeur de L'enseignement Supérieur-Grade B*, University Ibnou Zohr, Agadir, Morocco.

Main Research Areas

Quantum Information Theory.
Quantum entanglement, Quantum discord, Decoherence of quantum systems, Quantum cryptography, Quantum teleportation, Quantum computing, Quantum codes.

Quantum Mechanics and Quantum Optics.
Exactly solvable quantum models, Quantum coherence and decoherence theory, Light-Matter interaction, Multi-photon absorption processes of atoms and ions.

Symmetry Methods in Quantum Physics
Finite and compact groups and representation theory applied to nuclear, atomic and molecular spectroscopy. Lie and super-Lie algebras and symmetries in quantum physics.

Quantum Coherence Theory in Quantum Physics
Coherent states and Intelligent states for exactly solvable models. States minimizing the Robertson-Schrödinger relation. Analytical and algebraic realizations of coherent states. Quantum-classical transition

Geometric Methods in Quantum Physics
Non commutative geometry in condensed matter physics. Quantum Hall effect in higher dimensions. Anyons, parastatistics and fractional spins emerging from the topological effects in quantum systems.

Mathematical Physics
Symmetries in Physics. Groups and representations theory. Lie algebras and quantized Lie algebras for quantum physics. Z_2-graded algebras. Symplectic, Riemannian and Khalerian manifolds in quantum physics and quantum field theory.

Supersymmetric Methods in Quantum Physics
Supersymmetric quantum mechanics. Supersymmetric quantum states. Fractional supersymmetric systems and generalized spin systems.

Other Research Interests

Supersymmetry in particle physics.
Quantum gravity.
Topological effects in physics.
Cosmology.
String theory.
Quantum phase transitions and topological orders.

Teaching and tutoring activities

Teaching

Undergraduate (DEUG): Classical and Quantum mechanics, Electromagnetism, Thermodynamics.

Graduate of maitrise: Quantum mechanics, Nuclear physics, Atomic Physics, Quantum optics.

Graduate of Master: Group theory, Relativistic quantum mechanics, Quantum field theory, Introduction to Supersymmetry, Gauge theories. Mathematical methods for physics.

Supervising Phd Thesis

Supervisor of the Phd thesis of M. Mansour "Star-Produits et déformations quantiques" (1999).

Supervisor of the Phd thesis of J. Douari concerning "Anyons, statistiques fractionnaire et groupes quantiques." (2001).

Supervisor of the Phd thesis of A. Jellal concerning "Effet Hall fractionnaire et Symétries quantiques" (2003).

Supervisor of the Phd thesis of A. H. El Kinani concerning "Etats cohérents et intelligents généralisés pour des systèmes quantiques exactement solubles" (2005).

Supervisor of the Phd thesis of A. Hamama concerning "Théories des champs non commutatives et effet Hall quantique fractionnaire" (2008).

Supervisor of the Phd thesis of A. Oueldguejdi concerning "Géometrie symplectique en physique quantique de l'information" (Expected for December 2014)

Supervising Phd Thesis: in progress

Supervisor of the Phd thesis of R. Essaber
"Mesures quantiques de l'intrication en théorie quantique de l'information: Aspects algèbriques et géométriques"

Supervisor of the Phd thesis of W. El Kaydi
"Intrication dans les systèmes d'états cohérents"

Supervisor of the Phd thesis of S. Seddik
"Codes correcteurs d'erreurs en théorie quantique de l'information"

Supervisor of the Phd thesis of Hanane El Hadfi
"Contrôle des processus de dćoherence en physique quantique"

Supervising DESA thesis

Supervisor of Diploma thesis (DESA) of N. Hassani
"Etats cohérents et intelligents for des algèbres de Lie " (2005).

Supervisor of Diploma thesis (DESA) of F. Oufedjikh
"Mécanique quantique supersymétrique en dimensions supérieures" (2005).

Supervisor of Diploma thesis (DESA) of J. Maher
"Géométrie des états coherents et produit de Moyal" (2005).

Supervising Master thesis

Supervisor of the Master thesis of R. Essaber
"Corrélations quantiques en théorie quantique de l'information" (Rabat 2012)

Supervisor of the Master thesis of M. El Banany
"Méthodes géométriques pour l'étude des corrélations quantiques" (Rabat 2012)

Supervisor of the Master thesis of T. Charki
"Transitions de phase quantique et ordres topologiques" (Rabat 2012)

Supervisor of the Master thesis of W. El Kaydi
"Champs quantiques sur des espaces non commutatifs" (Rabat 2012)

Supervisor of the Master thesis of H. El Oulji
"Géométrie non commutative et applications en la physique du graphène" (Rabat 2012)

Supervisor of the Master thesis of Aouini Saloua
"Intrication quantique des états cohérents et la géometrie symplectique" (Rabat 2013)

Supervisor of the Master thesis of Nadia Hadar
"L'intrication Quantique et Mesure Géométrique de la Discorde Quantique" (Rabat 2013)

Supervisor of the Master thesis of Ahami Nizar
"Intrication Quantique à basse dimension" (Rabat 2013)

Supervisor of the Master thesis of Martin Mihigo Byamungu "Communication et cryptographie quantiques avec des variables continues" (Rabat 2014)

Supervisor of the Master thesis of Bilal Benzimoune
"Décoherence quantique en théorie quantique de l'information" (Rabat 2014)

Editor-Referee

Member of editors advisory panel of Journal of Physics A: Mathematical and Theoretical.

Member of editorial board of Journal of African Journal of Mathematical Physics.

Referee for Journal of Physics A: Mathematical and Theoretical.

Referee for Journal of Physics B: Atomic, Molecular and Optical Physics.

Referee for Journal of Mathematical Physics.

Referee for Physica A.

Referee for Physics Letters A.

Referee for European Journal of Physics C.

Reviewer for Mathematical Reviews.

Reviewer for Fortschritte der Physik - Progress of Physics.

Positions

Associate member of International centre for Theoretical Physics (ICTP), Trieste, Italy (2010-2014).

Invited Professor at Max Planck Institute for the Physics of Complex Systems (several times).

Invited Professor at University Claude Bernard Lyon 1, France (several times).

Associate researcher at Centre de recherches mathématiques, Montréal, Canada(2000).

Memberships

Coordinator of GNDR-IQ (Groupement National De Recherches-Information Quantique).

Vice president of Moroccan Society of Mathematical Physics.

Member of national steering committee of RHEMAP: Réseau National de Physique des Hautes Energies et Physique Mathématique.

Member of the International Association of Mathematical Physics.

Member of the editorial board of African Journal of Mathematical Physics.

Member of RENAPT: Réseau National de Physique Théorique,(1999-2004).

Member of GNPHE: Groupement national de Physique des Hautes Energies.

Expertise

Expert for CNRST (Centre National de la Recherche Scientifique et Technique)-Morocco.

Expert for CONICYT, la Comisión Nacional de Investigación Científica y Tecnológica (Chile)

Expert for National Research Council (CNCS)- Roumania

Organisation of National and International Meetings

Ecole Nationale de Physique quantique, (Rabat les 27-28-29 Octobre 1999):
Etats cohérents: Aspects géométriques et algèbriques.

Premier Workshop de Physique Théorique Organisé par le réseau national de physique théorique (RNPT);
Faculté des sciences, Rabat, Maroc, 16-17/06/2000
"la géométrie non commutative la théorie des supercordes la physique des particules"

Ecole Nationale "Symétries en physique", (Rabat les 01-03 Décembre 2002).

Rencontre Nationale de RENAPT (Tanger, 24-26 May 2004).
Etats Cohérents et Applications, Phénoménologie du MSSN et QCD, Géométrie Non-Commutative.
Tanger 27 - 29 Mai 2004.

The International Conference on High Energy and Mathematical Physics (Marrakech, 04-07 April 2005).

International colloquium in Mathematical Physics: Non commutative geometry, Symmetries and String theory (Errachidia, 01-03 June 2006).

Rencontre National des Jeunes Chercheurs de Physique (Casablanca, 19-20 December 2006).

12th Workshop on High Energy and Mathematical Physics (Rabat, 17-18 April 2007).

13th Workshop on High Energy and Mathematical Physics (Rabat, 29-31 May 2008).

International Conference: Quantum information theory and related topics (first edition organized by Groupement National de Recherches-Information Quantique)(Agadir, 03-06 October 2010).

International Conference: Quantum information theory and related topics (second edition organized by Groupement National de Recherches-Information Quantique) (Rabat, 13-16 November 2011).

Ecole Nationale: Théorie Quantique de L'Information: Fondements et Applications (Rabat, 30 November and 01 December 2012).

Ecole Nationale: Théorie Quantique de L'Information: Fondements et Applications (Rabat, 31 January and 01 February 2014).

International Collaborations

Institut de Physique Nucléaire, Université de Lyon, (Contacts: J. Meyer, M. Kibler et F. Gieres).
Project: Fractional Supersymmetry, exotic quantum statistics and Bose Einstein condensation.

Institute of Low Temperature and Structural Research, Polish Academy of Sciences in Wroclaw, Poland (Contact: J. Sztucki).
Projet: Two photon absorption for ions embedded in crystals.

Centre de Recherches Mathématiques, Université de Montréal, Montréal, Québec, Canada (Contact: V. Hussin).
Project: Coherent and intelligent states minimizing Robertson-Schrödinger uncertainty relation.

Université Denis Diderot Paris 7, France (Contact: J.P. Gazeau).
Project: Coherent states for fractional spin systems and generalized Grassmann variables.

Département de Mathématiques Université de Caen, France (Contact: A. Nitaj)
Project: Secure quantum communications and quantum algorithms.

Max Planck Institute for Complex Systems, Dresden, Germany (Contact: R. Mossener).
Project: Edge states in quantum Hall systems: algebro-geometric approaches.

Lakehead University, Department of Physics, Canada (Contact: Hubert de Guise).
Project: Phase operators and phase states, Hadamard transformations for quantum information and quantum computing.

University Politehnica, Timisoara, Roumania (Contact D. Popov).
Project: Coherent states for exactly solvable Hamiltonians.

Departament d'Estructura i Constituents de la Matèria, Universitat de Barcelona, Spain (Contact: J.I. Latorre).
Project: Quantum computation and mutually unbiased bases.

International Centre for Theoretical Physics, Trieste, Italy (Contact: Condensed matter section)
Project: Quantum information theory (project conducted by M. Daoud as ICTP regular associate)

ICTP Regional Network : Novel Approaches to Mesoscopic Phenomena (with scientists from Armenia, Brasil, Turkey and Morocco).

National collaborations

Université Mohammed V, Laboratoire de physique des hautes énergies, modèlisation et simulation. (Contacts: E. H. Saidi, R. Ahl Laamara).
Projet: Corrélations quantiques et processus de contrôle de la décoherence des systèmes quantiques.

Université Hassan II-Mohammédia, Faculté des Sciences, Laboratoire de physique quantique. (Contact: M. Bennai).

Projet: Phènomènes d'intrication dans la matière condensée.

Université Hassan II-Mohammédia, Faculté des Sciences et Techniques, Laboratoire de cryptographie. (Contact: N. Fahsi).
Projet: Codes correcteurs d'erreurs en information quantique.

Université Hassan II-Ain choc, Ecole Normale Supérieure. (Contact: A. Azhari).
Projet: Cryptographie conventionelle et protocoles cryptographiques quantiques.

Université Moulay Ismail, Laboratoire de Physique Mathématique (Contact: E. H. El Kinani)
Projet: Développement et sécurité de nouveaux proptocles quantiques.

Université Ibn Tofail, Laboratoire de Physique du Rayonnement (Contact: J. Zerouaoui).
Projet: Supersymètrie fractionnaire et algèbres déformées.

Université Chouaib Doukkali, El jadida (Contact: A. Jellal)
Projet: Nouvelles approches pour les phénomènes mesoscopiques.

Université Kaddi Ayyad, Marrakech (Contact: Y. Attouarti)
Projet: Systèmes atomiques pour la physique de l'information.

Université Moulay Slimane, Beni Mellal (Contact: E.B. Choubabi)
Projet: Quantification des corrélations quantiques dans les systèmes d'états cohérents.

Réseau National de physique des hautes énergies et physique mathématique.
Projet: Champs, Symétries et Particules.

Groupement National de recherches-information quantique:
Projet: Aspects théoriques et mathématiques de l'information quantique et applications en cryptographie et communications quantiques.

Research visits (one month and more)

Lyon, Institut de physique nucléaire, December 1996.

Lyon, Institut de physique nucléaire, May-July 1997.

Lyon, Institut de physique nucléaire, December-April 1998.

Trieste, International centre for theoretical physics, August-September 1998.

Lyon, Institut de physique nucléaire, May-July 1999.

Montréal, Centre de recherches mathématiques, Mars-July 2000.

Trieste, International centre for theoretical physics, August 2000.

Trieste, International centre for theoretical physics, August 2001.

Trieste, International centre for theoretical physics, August 2002.

Lyon, Université Claude Bernard, May 2003.

Dresden, Max Planck institute (MPI-PKS), November-December 2003.

Trieste, International centre for theoretical physics, September 2004.

Dresden, Max Planck institute (MPI-PKS), October-November 2005.

Lyon, Institut de physique nucléaire, July 2006.

Trieste, International centre for theoretical physics, September 2006.

Dresden, Max Planck institute (MPI-PKS), December 2006.

Trieste, International centre for theoretical physics, November 2007.

Dresden, Max Planck institute (MPI-PKS), December 2007.

Dresden, Max Planck institute (MPI-PKS), December 2008.

Lyon, Institut de physique nucléaire, July 2009.

Dresden, Max Planck institute (MPI-PKS), November-December 2009.

Lyon, Institut de physique nucléaire, July 2010.

Dresden, Max Planck institute (MPI-PKS), November-December 2010.

Lyon, Institut de physique nucléaire, July 2011.

Dresden, Max Planck institute (MPI-PKS), November-December 2013.

Trieste, International centre for theoretical physics, July-September 2014.

Chapter books

1. **M. Daoud** and M. Kibler
k-fermionic coherent states
Chapter book in Concise Encyclopedia of Supersymmetry And Noncommutative Structures in Mathematics and Physics,
Duplij S., Siegel W., Bagger J. (Eds.) (2004) 211.

2. M. Kibler and **M. Daoud**
On supersymmetric quantum mechanics
Chapter book in Fundamental World of Quantum Chemistry, A Tribute to the Memory of Per-Olov Lowdin, Volume 3, E. Brandas and E.S. Kryachko (Eds.), Springer-Verlag, Berlin, 2004.

3. **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.

4. **M. Daoud**
Les corrélations quantiques en théorie quantique de l'information.
Actes de la session plénière solennelle de l'académie Hassan II des sciences et techniques, Rabat, 20 - 22 février 2013.

List of Publications

1. J. Sztucki, **M. Daoud** and M. Kibler
Intensity of two photon spectroscopy transitions for $Ni^{2+} : Mgo$
Phys. Rev. B. **45** (1992) 2023.

2. **M. Daoud** and M. Kibler
Two-photon spectroscopy of transitions metal ions in cubical symmetry
J. Alloys and Compounds **188** (1992) 255.

3. **M. Daoud** and M. Kibler
Symmetry adaptation and two photon spectroscopy of ions in molecular or solid-state finite symmetry
Symmetry methods in Physics, **1** (1992) 37.

4. **M. Daoud** and M. Kibler
Two photon laser spectroscopy of ions transitions: Interconfigurational tarnsitions
Laser Physics **2** (1992) 704.

5. **M. Daoud** and M. Kibler
Sum rules for multi-photon spectroscopy of ions in finite symmetry
Lett. Math. Phys. **28** (1993) 269.

6. **M. Daoud** and M. Kibler
Symmetry adaptation techniques in n-photon absorption spectroscopy
J. Alloys and Compounds **193** (1993) 219.

7. **M. Daoud** and M. Kibler
Two photon spectroscopy between states of opposite parities
Phys. Rev. B. **52** (1995) 12677.

8. **M. Daoud** and Y. Hassouni
On the generalized statistics through the deformation of the exterior algebra
Mod. Phys. Lett. A. **12** (1997) 457.

9. **M. Daoud**, Y. Hassouni and E.H. Tahri
Deformation of the exterior algebra and the Yang Baxter equation
Inter. J. Theor. Phys. **6** (1997) 1413.

10. **M. Daoud** and M. Kibler
Statistical mechanics of qp-bosons in D-dimensions
Phys. Lett. A **206** (1995) 13.

11. **M. Daoud**,J. Meyer M. Kibler
Statistical mechanics of qp-bosons in D-dimensions
Symmetry and Structural Properties of Condensed Matter, Eds. T.Lulek, B.Lulek and W. Florek (World Scientific).

12. **M. Daoud** and Y. Hassouni
q-deformed Fock space and statistical properties of quons
Helv. Phys. Acta **71** (1998) 599.

13. **M. Daoud** and Y. Hassouni
On the generalization of the supersymmetric quantum mechanics
Inter. J. Theo. Phys. **37** (1998) 2021.

14. **M. Daoud** and Y. Hassouni
A new realization of the fractional supersymmety
Prog. Theo. Phys. **6** (1997) 1033.

15. **M. Daoud**, J. Douari and Y. Hassouni
Quonic realization of the deformed H-W algebra
Inter. J. Theo. Phys. **12** (1997) 3071.

16. **M. Daoud**, Y. Hassouni and M. Kibler
The k-fermions as objects interpolating bosons and fermions
In Symmetries in Science X , eds. B.Gruber and M.Ramek (Plenum Press, New York) 1998.

17. **M. Daoud**, Y. Hassouni and M. Kibler
On the generalized coherent states
Phys. At. Nuclei **61** (1998) 1821

18. **M. Daoud** and M. Kibler
Variations on a theme of quons: A non standard basis for Wigner-Racah algebra of the group SU(2)
Recent Res. Devel. Quantum Chem., **2** (2001) 91.

19. **M. Daoud** and M. Kibler
Variations on a theme of quons: A fractional supersymmetric oscillator
Recent Res. Devel. Quantum Chem., **2** (2001) 101.

20. A.Jellal, **M. Daoud** and Y. Hassouni
Supersymmetric sine algebra and degeneracy of Landau levels
Phys. Lett. B **474** (2000) 122.

21. **M. Daoud**, J. Douari and Y. Hassouni
Yang-Baxter equation on two-dimensionnal lattice and some infinite dimensionnal algebras
Acta. Phys. Slovaca **49** (1999) 945.

22. M.Mansour, **M. Daoud** and Y. Hassouni
fractionnal spin through Q-deformed Lie and super-Lie algebras
Phys. Lett. B **454** (1999) 281.

23. M.Mansour, **M. Daoud** and Y. Hassouni
fractionnal spin through some quantum algebras
Rep. Math. Phys. **44** (1999) 435.

24. **M. Daoud** and M. Kibler
A fractional supersymmetric oscillator and its coherent states
In Procceding of the Sixth Wigner Symposium. math-ph/ 9912024.

25. **M. Daoud** and M. Kibler
On the fractional supersymmetric quantum mechanics: the fractional supersymmetric oscillator
In Symmetry and Structural Properties of Condensed Matter, Eds. T.Lulek, B.Lulek and W. Florek
(World Scientific). math-ph/ 0101009.

26. A.H. El Kinani and **M. Daoud**
Generalized intelligent states for an arbitrary quantum mechanical system
J.Phys. A: math and general **34** (2001) 5373.

27. A.H. El Kinani and **M. Daoud**
Coherent states à la Klauder-Perelomov for the Pöshl-Teller potentials
Phys. Lett. A **283** (2001) 291.

28. A.H. El Kinani and **M. Daoud**
Generalized intelligent states for nonlinear oscillator
Inter. J. Modern. Phys. B **15**(2001) 2465.

29. A.H. El Kinani and **M. Daoud**
Generalized coherent states and intelligent states for exact solvable quantum systems
J.Math. Phys **43**(2002) 714.

30. A.H. El Kinani and **M. Daoud**
Coherent and generalized intelligent states for infinite square well potential and nonlinear oscillators
Inter. J. Modern. Phys. B **16** (2002) 3915

31. **M. Daoud** and E.H El Kinani
The Moyal bracket in the coherent states framework
J.Phys. A: math and general **358** (2002) 2639.

32. **M. Daoud** and V. Hussin
General sets of coherent states and Yanes-Cummings model
J.Phys. A: math and general **35** (2002)7381.

33. **M. Daoud** and M. Kibler
On two approaches of fractional supersymmetric quantum mechanics
Inter. J. Quantum. Chem **91** (2003) 551.

34. **M. Daoud** and M. Kibler
fractional supersymmetric quantum mechanics
Phys. Part. Nucl. (Suppl. 1) **33** (2002) 543.

35. **M. Daoud**
Robertson Schrödinger intelligent states for two-body Calogero model
Mod. Phys. Lett.A **17** (2002) 1805.

36. **M. Daoud**
Photon-added coherent states for exactly solvable Hamiltonians
Phys. Lett.A **305** (2002) 135.

37. **M. Daoud** and J. Douari
Extended Weyl-Heisenberg Algebra and Rubakov-Spiridonov Superalgebra Anyonic Realizations

Mod. Phys. Lett. A **18** (2003) 913.

38. **M. Daoud** and J. Douari
A Generalized Jaynes-Cummings Model Nonlinear Dynamical Superalgebra u(1/1) and Supercoherent States
Inter. J. Mod. Phys. B **17** (2003) 2473.

39. A. Jellal and **M. Daoud**
D-dimensional ideal quantum gases in a $Ar^n + Br^{-n}$ potential
Mod. Phys. Lett. B **17** (2003) 1321.

40. **M. Daoud**
Extended Voros product in the coherent states framework
Phys. Lett.A **309** (2003) 167.

41. **M. Daoud**
Covariance of the Grassman star product
Rep. Math. Phys. **52** (2003) 281.

42. **M. Daoud** and M. Kibler
k-fermionic coherent states
Chapter book in Concise Encyclopedia of Supersymmetry And Noncommutative Structures in Mathematics and Physics,
Duplij S., Siegel W., Bagger J. (Eds.) (2003) 211.

43. M. Kibler and **M. Daoud**
On supersymmetric quantum mechanics
Chapter book in Fundamental World of Quantum Chemistry, A Tribute to the Memory of Per-Olov Lowdin, Volume 3, E. Brandas and E.S. Kryachko (Eds.), Springer-Verlag, Berlin, 2004.

44. **M. Daoud** and D. Popov
Statistical properties of Klauder-Perelomov coherent states for the Morse potential
Inter. J. Mod. Phys. B **18** (2004) 325

45. **M. Daoud** and M. Kibler
Fractional supersymmetric quantum mechanics as a set of replicas of ordinary supersymmetric quantum mechanics
Phys. Lett. A **321** (2004) 147.

46. **M. Daoud**
Generalized intelligent states of the $su(N)$ algebra
Phys. Lett. A **329** (2004) 318.

47. **M. Daoud**
Analytic representations based on $su(3)$ coherent states and Robertson intelligent states
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48. **M. Daoud** and M.Kibler
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