

Salwa M. Al Saleh

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Place of Birth: Syria
Languages: Arabic, French and English.

Current position

Assistant Professor, Department of Physics and Astronomy , College of Science.
King Saud University, Riyadh 11451, Saudi Arabia

Areas of Interest

Quantum gravity theory
Physics Academic education and science public outreach.

Appointments held

1976-1982	Demonstrator; Faculty of Science ,Aleppo University (Syria)
1984-1989	<i>Researcher</i> ; Laboratoire de Physique Corpusculaire Clermont-Ferrand, Université Blaise Pascal. (France)
1984-1989	Researcher; CERN (Switzerland)
1989-1992	Assistant Professor ; Faculty of Science , Aleppo University (Syria)
1992-now	Assistant Professor ; College of Science ,King Saud University University (Saudi Arabia)

Education

(1988)	PhD in Corpuscular Physics, Université Blaise Pascal. (France). <i>Thesis title</i> : 'CALCUL RELATIVISTE, EN ELECTRODYNAMIQUE QUANTIQUE, DE LA DIFFUSION COMPTON SUR UN ELECTRON LIE'
1984	D.E.A in Corpuscular Physics. First- class honours, Université Blaise Pascal. (France)
1976	BSc in Physics and Chemistry. <i>First Honour Degree</i> , Aleppo University (Syria)

Publications

JOURNAL ARTICLES

1. Babsail, L.; Bousiakou, L.; Alsaleh, S. and Saglam M. "Calculation of the Zeeman-Fine Energies and the Spectrum with Doppler-Shift Correction of Atomic Lithium." *Journal of Modern Physics* 2.07 (2011): 752.
2. Saleh, Salwa Al. "Geometric Backreaction of Modified Quantum Vacua and Diffeomorphisim Covariance." . *Journal of Modern Physics* Vol 7 (3) (2015).
3. Al Saleh, S., L. A. Al Asfar, and A. Mahroussah. "Rotating Squeezed Vacua as Time Machines." *Journal of Modern Physics* 7.03 (2016): 304.
4. Al Saleh, Salwa. "Statistical Mechanics for Weak Measurements and Quantum Inseparability." *Journal of Quantum Information Science* 6.01 (2016): 10.
5. Al Saleh, Salwa. "Relativistic Dynamics of the Compton Diffusion on a Bound Electron ." *The European physical journal plus* (2016) 131: 146.
6. Al Saleh, Salwa. "Calculation of the covariant matrix elements, and cross-sections of Compton diffusion on a bound electron." *The European physical journal plus* 131.10 (2016): 364.
7. Al Saleh, Salwa " Thermodynamics of BTZ Black Holes in Gravity's Rainbow " *International Journal of Modern Physics A.* (Vol. 32 (2017) 1750076 arXiv:1703.09617
8. Alsaleh Salwa " Thermodynamics of Rotating Kaluza-Klein Black Holes in Gravity's Rainbow" *Eur. Phys. J. Plus* (2017) 132: 181
9. Alsaleh, S. and Alasfar L. " ER= EPR and Non-Perturbative Action Integrals for Quantum Gravity" *Int. J. Geom. Methods Mod. Phys.* arXiv:1611.02573
10. Alsaleh, Salwa ; Al-Modlej, Abeer and Ali, Ahmed Farag. " Virtual Black Holes from Generalized Uncertainty Principle and Proton Decay" *Eurphysics Letters* arXiv:1703.10038
11. Alsaleh, Salwa " Accelerated Detector Response Function in Squeezed Vacuum" *Technologies* (2017) , 5(2), 17
12. Momeni,D ; Myrzakul,A. ; Myrzakulov, R. ; Faizal,M.; Alsaleh, S. and Alasfar, L. " Thermodynamic and Holographic Information Dual to Volume" arXiv:1704.05785
13. Alsaleh, S. ; Farag Ali, A. and Vagenas, E. "GUP parameter and black hole temperature" (Submitted to *Physical Review D*).
14. S. Alsaleh, L. Alasfar, M. Faizal and A. F. Ali, "Quantum no-singularity theorem from geometric flows", arXiv:1705.00977 [hep-th].

15. L. Alasfar, S. Alsaleh, A. Farag Ali and E. Vagenas “ The GUP and quantum Raychaudhuri equation” arXiv:1706.06502 [hep-th]
16. S. Alsaleh, L. Alasfar, M. Faizal and A. F. Ali, “ Quantum geometric flows and implications to quantum gravity”

SCIENTIFIC REFEREEING

Referee for the following prestigious ISI journals

1. Classical and Quantum Gravity
2. International Journal of Modern Physics A

SCIENTIFIC CONFERENCES

1. Laila Babsail, Leda Bousiakou, Salwa Alsaleh, and Mesude Saglam (2011) Calculation of the Zeeman-Fine Energies and the Spectrum with Doppler-Shift Correction of Atomic Lithium. Electronic and Atomic Collisions (ICPEAC 2011) IOP Publishing Journal of Physics: Conference Series 388.
2. Alsaleh, S., et al. "Calculation of the effective Lande-g factors for entangled states in Hydrogen and Hydrogen-like atoms." Journal of Physics: Conference Series. Vol. 388. No. 2. IOP Publishing, 2012.
3. Alsaleh, Salwa, and Mesude Saglam. "Calculation of the Zeeman-fine energies of atomic Potassium." Journal of Physics: Conference Series. Vol. 388. No. 2. IOP Publishing, 2012.
4. S. Alsaleh, L. Alasfar, M. Faizal and A. F. Ali, “ Quantum geometric flows” The 3rd Karl Schwarzschild Conference, Frankfurt Germany

CERN REPORTS

1. Salwa Al Saleh , Differed calibration for measuring the time of flight for the Identification of particles in experiment (R608 at CERN (Geneva) Clermont-FD, July 1984.
2. Salwa Al Saleh, Problems related to electronic calibration of spectrometre at 90 Degree in experiment (R608 at CERN Geneva) Clermont-FD. June 1984.
3. A. MAHROUSSEH, S. AL SALEH, F.VAZEILLE, L.MERITET.Calculus of spectrometre acceptance at 90 degree (r608 at CERN In Geneva) PCCF RI 85/08 , December 1985.
4. P. CHAUVAT, F.VAZEILLE, S.AL SALEH, L.MERITET, A.MAHROUSSEH.Comparison of the inclusive productions of charged pion in p-p Collision at 90 degree and for the intermidiate transverse momenta at the CERN-ISR , 1987.

5. P. CHAUVAT, F.VAZEILLE, S.AL SALEH, L.MERITET, A.MAHROUSSEH.Experimental study of CR and CP invariances in p-p collisions. At the CERN-ISR , 1987.
6. A.SMITH, P. CHAUVAT, F.VAZEILLE, S.AL SALEH, L.MERITET, A.MAHROUSSEH Identification of particles below 3 Gev/c from the association of Aerogel counters and time of flight measurements, 1988.

Teaching

UNDERGRADUATE COURSES

King Saud University:

101 Physics, 102 Physics, 209 Physics, 212 Physics, 241 Physics, 396 Physics, 313 Physics, 342 Physics, 343 Physics, 352 Physics, 353 Physics, 381 Physics, 453 Physics, 454 Physics, 481 Physics, 492 Physics, and 499 Physics .

Al-Imam Muhammad Ibn Saud Islamic University :

303 Physics, 250 Physics, and 334 Physics.

GRADUATE COURSES

King Saud University:

551 Physics.

Service to the profession and community

ADMINISTRATION

2010-2011 Vice Head of Physics and Astronomy department.

COMMITTEES

1995-now	Academic Advisory committee
2014- now	Academic Accreditation
2016	Examination committee
2009-2014	Quality and Development
2009-2010	College of Science Annual Report.
2011	Rapporter of Burden of Teaching and Timetabling

OTHERS

1995-now	Academic Advisor
2008-now	Contribution to Physica Club at KSU.
2014-now	Atrbitration to The Research Centre for Scientific and Medical Studies
2017	Attribution with a poster to " My research, My community" Gallery at PSU, Riyadh Saudi Arabia

- 2017 Attribution with three posters to the 7th Research Day at KSU, Riyadh Saudi Arabia.
- 2016 A public lecture in collaboration with Physica club, astronomy week.
- 2016 Member of judging committee of *The King's Ambition For a Nations Future*
- 2014-2015 Contribution in Developing Methods of Learning and Teaching for Middle and High School Students.
- 2009-2014 Trainer/Examiner for the Saudi Team for the International Physics Olympiad.
- 2013 Training School Teachers in Physics and Mathematics for the Ministry of Education.
- 2012 Teaching at Al-Imam Muhammad Ibn Saud Islamic University
- 2010- 2012 Demonstrators examiner for the Physics and Astronomy department.
- 2009-2011 Arbitration in the First and Second Conference for Student Research.
- 2007-2011 Teaching in Riyadh Community College.

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