

Resumé (Curriculum Vitae)

- 1. Name Surname:** Sameer Ikhdair
- 2. Date of Birth:** 10 June 1963
- 3. Place of Birth:** Nablus (Napluse) / West Bank (Cisjordanian) / Palestine
- 4. Place of Residence:** 20 Temmuz Sokak, Yemi Kent, Gonyeli, Nicosia, Turkish Republic of Northern Cyprus (TRNC)

Higher El-Ta'awun Street, Nablus, West Bank, Palestine

- 5. Title:** Professor
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- 9. Education:**

| Degree | Field | University | Year |
|-------------------|---------------------|-----------------------------|------|
| Bachelor (B. Sc.) | Science (Physics) | An-Najah N. Univ. (NNU) | 1985 |
| Master (M. Sc.) | High Energy Physics | Middle East T. Univ. (METU) | 1988 |
| Ph. D. | High Energy Physics | METU | 1992 |

10. Academic Titles

Assistant Professor: Electrical and Electronics Engineering (EEE) Department - Near East University (NEU)-Nicosia//Cyprus February 1993- January 2000

Associate Professor: EEE Department - Near East University (NEU) Nicosia / Cyprus

February 2000 - November 2008

Professor: November 2008

| Department | Faculty | University | Year |
|------------|-------------|------------|------------|
| EEE | Engineering | NEU | Nov. 2008- |

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|---------|---------|-----|------------|
| | | | Aug.2013 |
| Physics | Science | NNU | Aug. 2013- |

11. Supervised Master and Ph. D. Thesis

11.1 Master Thesis

1. Attar, Hani, "Design and Investigation of the Antenna Measurement Systems", Near East University, March 1999.
2. Albreem, Hani, "Implementation and Measurements on the Half-Wave Dipole Antenna", Near East University, December 2003.
3. Al-Hams, Mohammad, "Simulations on the Pulse Radar", Near East University, July 2004.
4. Khader, Talal, "Simulations on the Linear Dipole Antenna: An Application to Yagi-Uda Antenna", Near East University, July 2008.

11.2 Ph. D. Thesis

1. Abu-Hasna, Jamal, "Coverage Estimations of the Radio Transmission into and within Elevator by Linear Prediction Filter", Near East University, October 2009.

12. Publication Statistics in Peer-Reviewed Journals

12.1 Articles published in SCI and SCI-expanded Journals (9 papers published before taking associate professorship, over 120 papers after taking associate professorship)

1. **S. M. Ikhdair** and R. Sever, "Heavy Quark Bound-States in Potentials with the Bethe-Salpeter Equation," *Zeitschrift für Physik, C* **56**, 155-160 (1992).
2. **S. M. Ikhdair** and R. Sever, "Solution of the Bethe-Salpeter Equation by the Shifted 1/N Expansion Technique," *Hadronic Journal*, **15**, 389-403 (1992).
3. **S. M. Ikhdair** and R. Sever, "Solution of the Todorov Equation with Scalar and Vector Potentials," *Hadronic Journal*, **15**, 375-387 (1992).
4. **S. M. Ikhdair**, O. Mustafa and R. Sever, "Solution of Dirac Equation for Vector and Scalar Potentials and Some Applications," *Hadronic Journal*, **16**, 57-74 (1993).
5. **S. M. Ikhdair** and R. Sever, "Bethe-Salpeter Equation for non-Self-Conjugate Mesons in a Power-Law Potential," *Zeitschrift für Physik., C* **58**, 153-158 (1993).
6. **S. M. Ikhdair** and R. Sever, "Bound-States of the Exponential-Cosine-Screened Coulomb Potential," *Zeitschrift für Physik., D* **28**, 1-5 (1993).

7. **S. M. Ikhdair et al.**, “An Approach to the Statistical Model for the Spectroscopy of Heavy Quarkonia with the Song-Lin Potential,” *Hadronic Journal*, **16**, 339-347 (1993).
8. **S. M. Ikhdair et al.**, “Spectroscopy of Mesons and Proton Binding Energy in the Statistical Model with Three Quarkonium Potentials,” *Hadronic Journal*, **17**, 151-168 (1994).
9. **S. M. Ikhdair et al.**, “Numerical Study of a class of Potentials for the Spectroscopy of Mesons in the Statistical Model,” *Hadronic Journal*, **17**, Suppl. 9, 417-429 (1994).
10. **S. M. Ikhdair** and R. Sever, “ B_c Meson Spectrum and Hyperfine Splittings in the Shifted Large N-Expansion Technique,” *International Journal of Modern Physics, A* **18**, 4215-4232 (2003).
11. **S. M. Ikhdair** and R. Sever, “Spectroscopy of B_c Meson in a Semi-relativistic Quark Model Using the Shifted Large-N-Expansion Method,” *International Journal of Modern Physics, A* **19**, 1771-1792 (2004).

Publications of the year 2005

12. **S. M. Ikhdair** and R. Sever, “ B_c and Heavy Meson Spectroscopy in the Local Approximation of the Schrödinger Equation with Relativistic kinematics,” *International Journal of Modern Physics, A* **20**, 4035-4054 (2005).
13. **S. M. Ikhdair** and R. Sever, “Mass Spectra of Heavy Quarkonia and B_c Decay Constant for Static Vector Interactions with Relativistic Kinematics,” *International Journal of Modern Physics, A* **20**, 6509-6531 (2005).

Publications of the year 2006

14. **S. M. Ikhdair** and R. Sever, “Bound Energy Masses of Mesons Containing the Fourth Generation and Iso-Singlet Quarks,” *International Journal of Modern Physics, A* **21**, 2191-2200 (2006).
15. **S. M. Ikhdair** and R. Sever, “A Systematic Study on Nonrelativistic Quarkonium Interaction,” *International Journal of Modern Physics, A* **21**, 3989-4002 (2006).
16. **S. M. Ikhdair** and R. Sever, “A Perturbative Treatment for the Energy Levels of Neutral Atoms,” *International Journal of Modern Physics, A* **21**, 6465-6476 (2006).
17. **S. M. Ikhdair** and R. Sever, “Study on the B_c Leptonic Decay Constants in the Shifted N-Expansion Technique,” *International Journal of Modern Physics, A* **21**, 6699-6714 (2006).

Publications of the year 2007

18. **S. M. Ikhdair** and R. Sever, "Exact Solution of the Klein-Gordon Equation for the PT-Symmetric Woods-Saxon Potential by Nikiforov-Uvarov Method," *Annalen Der Physik (Berlin)*, **16 (3)**, 218-232 (2007).
19. **S. M. Ikhdair** and R. Sever, "Exact Polynomial Eigensolutions of the Schrödinger Equation for the Pseudoharmonic Potential," *Journal of Molecular Structure: Theochem*, **806**, 155-158 (2007).
20. **S. M. Ikhdair** and R. Sever, "A Perturbative Treatment for the Bound States of the Hellmann Potential," *Journal of Molecular Structure: Theochem*, **809**, 103-113 (2007).
21. **S. M. Ikhdair** and R. Sever, "Bound Energy of the Exponential-Cosine-Screened Coulomb Potential," *Journal of Mathematical Chemistry*, **41 (4)**, 329-341 (2007).
22. **S. M. Ikhdair** and R. Sever, "Bound States of a More General Exponential-Cosine-Screened Coulomb Potential," *Journal of Mathematical Chemistry*, **41 (4)**, 343-353 (2007).
23. **S. M. Ikhdair** and R. Sever, "Approximate Eigenvalue and Eigenfunction Solutions for the Generalized Hulthen Potential with Any Angular Momentum," *Journal of Mathematical Chemistry*, **42 (3)**, 461-471 (2007).
24. **S. M. Ikhdair** and R. Sever, "Polynomial Solution of PT-/Non-PT –Symmetric and Non-Hermitian Generalized Woods-Saxon Potential by Nikiforov-Uvarov Method," *International Journal of Theoretical Physics*, **46 (6)**, 1643-1665 (2007)
25. **S. M. Ikhdair** and R. Sever, "Polynomial Solution of Non-Central Potentials," *International Journal of Theoretical Physics*, **46**, 2384-2395 (2007)
26. **S. M. Ikhdair** and R. Sever, "Exact Solutions of the Radial Schrödinger Equation for Some Physical Potentials," *Central European Journal of Physics*, **5 (4)**, 516-527 (2007)
27. **S. M. Ikhdair** and R. Sever, "An Alternative Simple Solution of the Sextic Anharmonic Oscillator and Perturbed Coulomb Problems," *International Journal Modern Physics, C 18 (10)*, 1571-1581 (2007).

Publications of the year 2008

28. **S. M. Ikhdair** and R. Sever, "Exact Solutions of the Modified Kratzer Potential Plus Ring-Shaped Potential in the D-dimensional Schrödinger Equation by the Nikiforov-Uvarov-Method," *International Journal Modern Physics, C 19 (2)*, 221-235 (2008).

29. **S. M. Ikhdair** and R. Sever, "Polynomial Solutions of the Mie-Type Potential in the D-Dimensional Schrödinger Equation," *Journal of Molecular Structure: Theochem*, **855**, 13-17 (2008)

30. **S. M. Ikhdair** and R. Sever, "Relativistic Solution in D-Dimensions to a Spin-Zero Particle for Equal Scalar and Vector Ring-Shaped Kratzer Potential," *Central European Journal of Physics*, **6 (1)**, 141-152 (2008).

31. **S. M. Ikhdair** and R. Sever, " B_c Spectroscopy in the Shifted l -Expansion Technique," *International Journal of Modern Physics, E* **17 (4)**, 669-691 (2008).

32. **S. M. Ikhdair** and R. Sever, "Exact Solutions of the D-Dimensional Schrödinger Equation for a Ring-Shaped Pseudoharmonic Potential," *Central European Journal of Physics*, **6 (3)**, 685-696 (2008).

33. **S. M. Ikhdair** and R. Sever, "On Solutions of the Schrödinger Equation for Some Molecular Potentials: Wave Function Ansatz," *Central European Journal of Physics*, **6 (3)**, 697-703 (2008).

34. **S. M. Ikhdair**, "Exact Solutions of the D-Dimensional Schrödinger Equation for the Pseudo-Coulomb Potential Plus Ring-Shaped Potential," *Chinese Journal of Physics*, **46 (3)**, 291-306 (2008).

35. **S. M. Ikhdair** and R. Sever, "Exact Bound States of the D-Dimensional Klein-Gordon Equation with Equal Scalar and Vector Ring-shaped Pseudoharmonic Potential," *International Journal of Modern Physics. C* **19 (9)**, 1425-1441 (2008).

36. **S. M. Ikhdair** and R. Sever, "Bound States of a Semi-relativistic Equation for the PT-Symmetric Generalized Hulthen Potential by the Nikiforov-Uvarov Method," *International Journal of Modern Physics, E* **17 (6)**, 1107-1123 (2008).

37. **S. M. Ikhdair** and R. Sever, "Approximate l -State Solution of the D-Dimensional Schrödinger Equation for the Manning-Rosen Potential," *Annalen Der Physik (Berlin)*, **17 (11)**, 897-910 (2008).

Publications of the year 2009

38. **S. M. Ikhdair**, "Bound States of the Klein-Gordon Equation for Vector and Scalar General Hulthen-Type Potentials in D-Dimension," *International Journal of Modern Physics, C* **20 (1)**, 25-45 (2009).

39. **S. M. Ikhdair**, "An Improved Approximation Scheme for the Centrifugal Term and the Hulthen Potential," *The European Physical Journal, A* **39**, 307-314 (2009).

40. **S. M. Ikhdair** and R. Sever, "Any L-State Improved Quasi-Exact Analytical Solutions of the Effective Mass Klein-Gordon Equation for Vector and Scalar Hulthen Potential," *Physica Scripta*, **79**, 035002-12 (2009).

41. **S. M. Ikhdair** and R. Sever, “Exactly Solvable Effective Mass D-Dimensional Schrödinger Equation for Pseudoharmonic and Modified Kratzer Potentials,” *International Journal of Modern Physics, C 20 (3)*, 361-372 (2009).
42. **S. M. Ikhdair** and R. Sever, “Improved Analytical Approximation to Arbitrary l -State Solutions of the Schrödinger Equation for the Hyperbolic Potentials,” *Annalen der Physik (Berlin)*, **18** (10-11), 747-758 (2009).
43. S. M. Ikhdair and R. Sever, “Approximate l -State Solutions of the Manning-Rosen Potential by the Nikiforov-Unarov Method,” *International Journal of Modern Physics B, JPB20071089 [e-Print Archive: 0801.4271]* (accepted).
44. **S. M. Ikhdair** and R. Sever, “Exact Quantization Rule to the Kratzer-Type Potentials: An Application to the Diatomic Molecules,” *Journal of Mathematical Chemistry*, **45**, 1137-1152 (2009).
45. **S. M. Ikhdair** and R. Sever, “Nonrelativistic quark-antiquark Potential Spectroscopy of Heavy-Quarkonia and Exotic SUSY-Quarkonia,” *International Journal of Modern Physics, A 24 (28-29)*, 5341-5362 (2009).
46. **S. M. Ikhdair** and R. Sever, “Spectroscopy of the Ordinary Mesons and Supersymmetric Mesons in the Shifted L-Expansion Technique,” [e-Print Archive]
47. **S. M. Ikhdair**, “Rotation and Vibration of Diatomic Molecule in the Spatially-Dependent Mass Schrödinger Equation with Generalized q -Deformed Morse Potential,” *Chemical Physics*, **361 (1-2)**, 9-17 (2009).
48. **S. M. Ikhdair**, “Rotational and Vibrational Diatomic Molecule in the Klein-Gordon Equation with Hyperbolic Scalar and Vector Potentials,” *International Journal of Modern Physics, C 20 (10)*, 1563-1582 (2009).
49. **S. M. Ikhdair**, “Exact Klein-Gordon Equation with Spatially-Dependent Masses for Unequal Scalar-Vector Coulomb-Like Potentials,” *The European Physical Journal A*, **40 (2)**, 143-149 (2009).
50. **S. M. Ikhdair** and R. Sever, “Improved Analytical Approximation to Arbitrary l -State Solutions of the Schrödinger Equation for the Hyperbolic Potentials,” *Annalen der Physik (Berlin)*, **18 (3)**, 189-197 (2009).
51. **S. M. Ikhdair** and R. Sever, “Series Solutions of the N-dimensional Position-Dependent Mass Schrödinger Equation with a General Class of Potentials,” [e-Print Archive: [quant-ph/0604095](https://arxiv.org/abs/quant-ph/0604095)]

Publications of the year 2010

52. **S. M. Ikhdair** and R. Sever, “Approximate Analytical Solutions of the Generalized Woods-Saxon Potentials Including the Spin-Orbit Coupling Term and Spin-Symmetry,” *Central European Journal of Physics*, **8** (4), 652-666 (2010).
53. **S. M. Ikhdair** and R. Sever, “Solutions of the Spatially-Dependent Mass Dirac Equation With the Spin- and Pseudospin-Symmetry for the Coulomb-Like Potential,” *Applied Mathematics and Computation*, **216**, 545-555 (2010).
54. **S. M. Ikhdair** and R. Sever, “Approximate Bound-State Solutions of Dirac Equation with Hulthen Potential Including Coulomb-Like Tensor Potential,” *Applied Mathematics and Computation*, **216**, 911-923 (2010).
55. **S. M. Ikhdair**, “Approximate Solutions of the Dirac Equation for the Rosen-Morse Potential Including the Spin-Orbit Centrifugal Term,” *Journal of Mathematical Physics*, **51**, 023525-16 (2010).
56. **S. M. Ikhdair** and R. Sever, “Any l -State Solutions of the Woods-Saxon Potential in Arbitrary Dimensions Within the New Improved Quantization Rule,” *International Journal of Modern Physics, A* **25** (20), 3941-3952 (2010).

Publications of the year 2011

57. **S. M. Ikhdair**, “An Approximate κ -State Solutions of the Dirac Equation for the Generalized Morse Potential under Spin and Pseudospin-Symmetry,” *Journal of Mathematical Physics*, **52**, 052303-22 (2011).
58. **S. M. Ikhdair**, R. Sever and C. Berkdemir, “Spin- and Pseudospin-Symmetry Along with Orbital Dependency of the Dirac-Hulthen Problem,” *Applied Mathematics and Computation*, **217**, 9019-9032 (2011).
59. **S. M. Ikhdair**, “Quantization Rule Solutions to the Hulthen Potential in Arbitrary Dimension with a new Approximation Scheme for the Centrifugal Term,” *Physica Scripta*, **83**, 025002-7 (2011).
60. **S. M. Ikhdair**, “On the Bound-State Solutions of the Manning-Rosen Potential Including an Improved Approximation to the Orbital Centrifugal Term,” *Physica Scripta*, **83**, 015010-10 (2011).
61. **S. M. Ikhdair** and R. Sever, “Two Approximation Schemes to the Bound States of the Dirac-Hulthen Problem,” *Journal of Physics A: Mathematical and Theoretical*, **44**, 355301-29 (2011).
62. **S. M. Ikhdair**, “Bound States of the Klein-Gordon for Exponential-Type Potentials in D-Dimensions,” *Journal of Quantum Information Sciences*, **1** (2), 73-86 (2011).

63. **S. M. Ikhdair** and R. Sever, "Relativistic and non-relativistic bound states of the isotonic oscillator by Nikiforov-Uvarov method," *Journal of Mathematical Physics*, **52** (12), 122108 (2011); doi: 10.1063/1.3671640.

Publications of the year 2012

64. **S. M. Ikhdair**, "Approximate κ -state solutions to the Dirac-Yukawa problem based on the spin and pseudospin symmetry," *Central European Journal of Physics*, **10** (2), 361-381 (2012); doi: 10.2478/s11534-011-0121-5.

65. **S. M. Ikhdair** and R. Sever, "Approximate bound states of the Dirac equation with some physical potentials," *Applied Mathematics and Computation*, **218** (20), 10082-10093 (2012); Doi:10.1016/j.amc.2012.03.073.

66. **S. M. Ikhdair** and M. Hamzavi, "A quantum pseudodot system with two dimensional pseudoharmonic oscillator in external magnetic and Aharonov-Bohm fields," *Physica B: Condensed Matter* **407**, 4198-4207 (2012), <http://dx.doi.org/10.1016/j.physb.2012.07.004>.

67. **S. M. Ikhdair**, "The s-Wave Dirac Bound States for a Charged Quantum Harmonic Oscillator in Presence of Uniform Electric Field," *Journal of Modern Physics*, **3** (2), 170-179 (2012); Doi: 10.4236/jmp.2012.32023.

68. **S. M. Ikhdair**, "Approximated l-states of the Manning-Rosen potential and Nikiforov-Uvarov method," *ISRN Mathematical Physics*, **2012**, 201525 (20 pages) (2012); Doi: 10.5402/2012/201525.

69. M. Hamzavi, **S. M. Ikhdair** and B. I. Ita, "Approximate spin and pseudospin to the Dirac equation for the inversely quadratic Yukawa potential and tensor interaction," *Physica Scripta*, **85** (4), 045009 (2012);

doi: 10.1088/0031-8949/85/04/045009.

70. M. Hamzavi, **S. M. Ikhdair** and M. Solaimani, "A semi-relativistic treatment of spinless particles subject to the Yukawa potential with arbitrary angular momenta," *International Journal of Modern Physics*, **E21** (2), 1250016-13 (2012); Doi: 10.1142/S0218301312500164.

71. **S. M. Ikhdair**, "Effective Schrödinger equation with general ordering ambiguity position-dependent mass Morse potential," *Molecular Physics*, **110** (13), 1415-1428 (2012); <http://dx.doi.org/10.1080/00268976.2012.656148>; published by Taylor-Francis press.

72. **S. M. Ikhdair**, M. Hamzavi and R. Sever, "Spectra of cylindrical quantum dots: The effect of electrical and magnetic fields together with Aharonov-Bohm flux field," *Physica B: Condensed Matter* **407**, 4523-4529 (2012); <http://dx.doi.org/10.1016/j.physb.2012.08.013>.

73. **S. M. Ikhdair** and M. Hamzavi, "Approximate relativistic bound state solutions of the Tietz-Hua rotating oscillator for any κ -state," *Few-Body Systems* **53** (3-4), 473-486 (2012); Doi:10.1007/s00601-012-0470-7.
74. M. Hamzavi and **S. M. Ikhdair**, "Any J -state solution of the DKP equation for a vector deformed Woods-Saxon potential," *Few-Body Systems* **53** (3-4) 461-471 (2012); Published by Springer-Verlag.
Doi:10.1007/s00601-012-0452-9.
75. M. Hamzavi and **S. M. Ikhdair**, "Approximate l -state solution of the rotating trigonometric Pöschl-Teller potential," *Molecular Physics* **110** (24), 3031-3039 (2012),
<http://www.tandfonline.com>, <http://dx.do..org/10.1080/00268976.2012.695029>.
76. **S. M. Ikhdair** and M. Hamzavi, "Effects of external fields on two-dimensional Klein-Gordon particle under pseudo-harmonic oscillator interaction," *Chinese Physics B* **21** (11), 110302-6 (2012)
Doi: 10.1088/1674-1056/21/11/110302.
77. M. Hamzavi and **S. M. Ikhdair**, "Relativistic study of the energy-dependent Coulomb potential including Coulomb-like tensor interaction," *Canadian Journal of Physics*, **90** (7), 655-660 (2012);dx.doi.org:10.1139/cjp.2012.061;
published by NRC research press.
78. **S. M. Ikhdair** and M. Hamzavi, "Approximate Dirac solutions of complex PT-symmetric Pöschl-Teller potential in view of spin and pseudospin symmetries," *Physica Scripta* **86** (4), 045002-11 (2012); doi: 10.1088/0031-8949/86/04/045002.
79. Majid Hamzavi, **Sameer M. Ikhdair** and Karl-Erik Thylwe, "Pseudospin symmetry in the relativistic Killingbeck potential: Quasi-exact solution," *Zeitschrift für Naturforschung* **67a**, 567-571 (2012); Doi: 10.5560/ZNA.2012-0046.
80. M. Hamzavi, M. Eshghi and **S. M. Ikhdair**, "Effect of tensor interaction in the Dirac-attractive radial problem under pseudospin symmetry limit," *Journal of Mathematical Physics* **53**(8), 082101 (2012). Published by American Institute of Physics (AIP). Doi:10.1063/1.4739434,
81. S. M. Ikhdair and M. Hamzavi, "Relativistic new Yukawa-like potential and tensor coupling," *Few-Body Systems* **53** (3-4), 487-498 (2012).
Doi: 10.1007/s00601-012-0475-2.
82. S. M. Ikhdair and M. Hamzavi, "Spectral properties of quantum dots influenced by a confining potential model," *Physica B* **407**, 4797-4803 (2012);

<http://dx.doi.org/10.1016/j.physb.2012.08.040>.

83. M. Hamzavi, S. M. Ikhdaïr and M. Amirfakhriañ, “Duffin-Kemmer-Petiau particle in a vector exponential-like decaying field for any J-state,” *The European Physical Journal-Plus* **127**, 149-155 (2012); doi:10.1140/epjp/i2012-12149-0.

Publications of the year 2013

84. Sameer M. Ikhdaïr, Majid Hamzavi and Babatunde J. Falaye, “Relativistic symmetries in Yukawa-type interactions with Coulomb-like tensor,” *Applied Mathematics and Computation* **225**, 775-786 (2013) published by Elsevier.

85. Sameer M. Ikhdaïr and Majid Hamzavi, “Klein-Gordon solution for a Yukawa-like potential,” *Zeitschrift für Naturforschung*, **68a**, 715-724 (2013).

86. M. Hamzavi, S. M. Ikhdaïr and M. Amirfakhriañ, “Exact solutions of Feinberg-Horodecki equation for time-dependent Deng-Fan molecular potential,” *Journal of Theoretical and Applied Physics* **7**, 40 (2013).

87. M. Eshghi, M. Hamzavi and S. M. Ikhdaïr, “Exact solutions of a spatially-dependent mass Dirac equation for Coulomb field plus tensor interaction via Laplace transformation method,” *Advances in High Energy Physics* Volume 2012, ID 873619 (2012); doi:10.1155/2012/873619..

88. S. M. Ikhdaïr and M. Hamzavi, “Dirac bound state solutions of spherically ring-shaped q-deformed Woods-saxon potential,” *International Journal of Modern Physics E* **22(3)**, 1350015-16 (2013). doi:10.1142/S0218301313500158.

89. S. M. Ikhdaïr and B. J. Falaye, “Approximate Relativistic bound states of a particle in Yukawa field with Coulomb tensor interaction,” *Physica Scripta* **87(3)**, 035002-7 (2013).

Doi:10.1088/0031-8949/87/03/035002.

90. M. Hamzavi, S. M. Ikhdaïr and K.-E. Thylwe, “Bound states of Dirac particle in trigonometric Pöschl-Teller potential with spin-orbit coupling term,” *International Journal of Modern Physics E* **21 (12)**, 1250097-18 (2012).

Doi: 10-1142/S0218301312500978. IJMPE-D-12-00095.

91. Sameer M. Ikhdaïr, Babatunde J. Falaye, Majid Hamzavi “Approximate eigensolutions of the deformed Woods-Saxon potential via AIM,” *Chinese Physics Letters* **30 (2)**, 020305 (2013); doi:10.1088/0256-307X/30/2/020305.

92. S. M. Ikhdaïr and M. Hamzavi, “Approximate solutions of the Dirac equation for the Rosen-Morse potential including Coulomb-like tensor potential,” *Chinese Physics B* **22 (4)**, 040302 (2013).

93. M. Hamzavi, S. M. Ikhdair and K. E. Thylwe, "Equivalence of the empirical shifted Deng-Fan oscillator potential for diatomic molecules," *Journal of Mathematical Chemistry* **51**, 227-238 (2013).

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94. S. M. Ikhdair and M. Hamzavi, "Spinless particles in the field of unequal scalar-vector Yukawa potentials," *Chinese Physics B* **22** (4), 040303 (2013).

95. M. Hamzavi and S. M. Ikhdair, "Approximate solution of the Duffin-Kemmer-Petiau equation for a vector Yukawa potential with arbitrary total angular momenta," *Few-Body Systems* **54** (11), 1753-1763 (2013); doi: 10.1007/s00601-012-0487-y.

96. Majid Hamzavi and Sameer M. Ikhdair, "Relativistic symmetries in the Hulthen-like potential and tensor-like interaction," *Few-Body Systems* **54** (11), 1741-1752 (2013); doi: 10.1007/s00601-012-0493-0.

97. Sameer M. Ikhdair, and Majid Hamzavi "Spin and pseudo-spin symmetric Dirac particle in the field of Tietz-Hua potential including Coulomb tensor potential," *Chinese Physics B* **22** (9), 09305 (2013).

98. Sameer M. Ikhdair "Relativistic bound states of spinless particle by the Cornell potential model in external fields," *Advances in High Energy Physics Volume 2013, Article ID 491648* (2013) 10 pages.

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<http://dx.doi.org/10.1155/2013/491648>.

99. Sameer M. Ikhdair and Ramazan Sever "Relativistic two-dimensional Harmonic Oscillator plus Cornell potentials in external magnetic and AB flux fields," *Advances in High Energy Physics Volume 2013, Article ID 562959* (2013) 11 pages.

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100. Sameer M. Ikhdair and Babatunde J. Falaye, "**Approximate analytical solutions to relativistic and non-relativistic Pöschl-Teller potential with its thermodynamic properties**," *Chemical Physics* **421**, 84-95 (2013). Elsevier publishing .

101. Majid Hamzavi and **Sameer M. Ikhdair**, "Relativistic symmetries of fermions in the background of the inversely quadratic Yukawa potential with Yukawa potential as a tensor," *Canadian Journal of Physics*, **91**, 1-8 (2013); dx.doi.org/10.1139/cjp.2013.0176;

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102. M. Eshghi and **S. M. Ikhdair**, “Dirac particle in generalized poschl-teller field including a Coulomb-like tensor coupling: spin-symmetric solution,” *Mathematical Methods in Applied Sciences Article ID 3018 (11 pages)* (2013)

(Wileyonlinelibrary.com) DOI:10.1002/mma.3018. communicated by W. Sprobig

103. **S. M. Ikhdair**, “Scalar charged particle in presence of magnetic and Aharonov-Bohm fields plus scalar-vector Killingbeck potentials,” *Few-Body Systems 54, 1987-1995* (2013.) DOI:10.1007/s00601-013-0693-2.

104. M. Hamzavi and **S. M. Ikhdair**, “Influence of external fields on the Killingbeck potential: Quasi exact solution,” *Modern Physics Letters B 27 (24), 1350176 (8 pages)* (2013); World scientific publishing Company.

DOI:10.1142/S0217984913501765

105. **Sameer M. Ikhdair** and Babatunde J. Falaye “Two Approximate analytic eigensolutions of the Hellman potential with any arbitrary angular momentum,” *Zeitschrift für Naturforschung 68a, 701-708* (2013),

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106. S. M. Ikhdair, “Approximate k-state solutions of the Dirac equation in spatially-dependent mass for the Eckart potential including Yukawa tensor interaction,” *Physica Scripta 88, 065007 (10 pages)* (2013); IOP publishing.

107. **Sameer M. Ikhdair** and Majid Hamzavi “Klein-Gordon solutions for a Yukawa-like potential,” *Zeitschrift für Naturforschung 68a, 715-724* (2013),

DOI: 10.5560/ZNA.2013-0045.

108. Sameer M. Ikhdair and Majid Hamzavi, “Approximate relativistic solution for a new ring-shaped Hulthen potential,” *Zeitschrift für Naturforschung 68a, 279-290* (2013); doi: 10.5560/ZNA.2012-0109.

109. S. M. Ikhdair, “Quantum problems with Lenz-Demokov-Ostrovsky effective potentials at zero-binding energy,” *submitted to Physica Scripta PS451949* (2013) (peer-review).

110. M. Hamzavi, S. M. Ikhdair and K.-E. Thylwe, “Spinless particle in the field of unequal scalar-vector Yukawa potential,” *Chinese Physics B 22 (4), 04301* (2013).

111. M. Eshghi, M. Hamzavi and S. M. Ikhdair, “Relativistic symmetry of position-dependent mass particle in the Coulomb field including tensor interaction,” *Chinese Physics B 22 (3) (2013), 03303*.

112. M. Hamzavi, S. M. Ikhdair and A. A. Rajabi, "A semi-relativistic treatment of spinless particles subject to the Woods-Saxon potential," *Chinese Physics C* **37** (6) (2013) 063101.

Link: <http://iopscience.iop.org/1674-1137/37/6/063101>

Publications of the year 2014

113. B. J. Falaye, K. J. Oyewumi, S. M. Ikhdair and M. Hamzavi "Eigensolution techniques, their applications and Fisher's information entropy of the Tietz-Wei diatomic molecular model," *Physica Scripta* **89**, 115204 (2014 (27pp)). Published by IOP Publishing/Royal Swedish Academy of Sciences.

114. Mahdi Eshghi and Sameer M. Ikhdair, "Dirac particle in generalized Pöschl-Teller field including Coulomb-like tensor coupling: super-symmetric solution," *Mathematical Methods in the Applied Sciences* **37**, 2829-2839 (2014). Published by John Wiley and sons.

115. Majid Hamzavi, Sameer M. Ikhdair and Babatunde J. Falaye, "Dirac bound states of anharmonic oscillator in external fields," *Annals of physics* **341**, 153-163 (2014). Published by Elsevier.

116. Sameer M. Ikhdair and Babatunde J. Falaye, "Bound states of spatially dependent mass Dirac equation with the Eckart potential including Coulomb tensor interaction," *The European Physical Journal Plus* **129**, 1-15 (2014). Published by Springer-Verlag.

117. Majid Hamzavi and Sameer M. Ikhdair, "Approximate eigensolutions of Dirac equation for the superposition Hellmann potential under spin and pseudospin symmetries," *EPRAMANA - Journal of Physics* **83(1)**, 49-61 (2014). Published by Indian Academy of Sciences.

118. M. Eshghi and S. M. Ikhdair, "Relativistic effect of pseudospin symmetry and tensor coupling on the Miw-type potential via Laplace transformation method," *Chinese Physics B* **23** (12) 120304 (2014) Published by Chinese Academy of Sciences.

119. S. M. Ikhdair and B. J. Falaye "A charged spinless particle in scalar-vector harmonic oscillators with uniform magnetic and Aharonov-Bohm flux fields," *Journal of the Association of Arab Universities for Basic and Applied Sciences (JAAUBAS)* **18**, 1-10 (2014). Published by Elsevier.

120. Sameer M. Ikhdair, Majid Hamzavi, A. R. Pazouki, A. H. Behrouz and Majid Amirfakhrian, "Relativistic bound states in a pseudo-harmonic oscillator via Laplace transform," *Romanian Reports in Physics* **66** (3), 621-629 (2014).

121. Sameer M. Ikhdaire and Majid Hamzavi, "Approximate solutions to a spatially-dependent mass Dirac equation for modified Hylleraas plus Eckart potential with Yukawa potential as a tensor," *Indian Journal of Physics* **88** (7), 695-707 (2014). Published by Indian Academy of Sciences

DOI 10.1007/s12648-014-0464-z..

Publications of the year 2015

122. Sameer M. Ikhdaire, Babatunde J. Falaye, and Majid Hamzavi, "Nonrelativistic Molecular Potentials Under External Magnetic and AB Flux Fields," *Annals of Physics* **353**, 282-298 (2015). Elsevier publishing co.

<http://dx.doi.org/10.1016/j.aop.2014.11.017>

123. Babatunde J. Falaye, Sameer M. Ikhdaire and Majid Hamzavi, "Formula Method for Bound State Problems," *Few-Body Systems* **56** (1), 63-78 (2015). Springer-Verlag publishing co.

DOI 10.1007/s00601-014-0937-9..

124. Babatunde J. Falaye, Sameer M. Ikhdaire and Majid Hamzavi, "Spectroscopic Study of Some Diatomic Molecules via the Proper Quantization Rule," *Journal of Mathematical Chemistry* (2015). Springer International Publishing Switzerland 2015.

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125. Babatunde J. Falaye, Sameer M. Ikhdaire and Majid Hamzavi, "Shifted Tietz-Wei Oscillator for stimulating the atomic Interaction in Diatomic Molecules," *Journal of Theoretical and Applied Physics* (2015). Springer International Publishing Company 2015.

126. B. J. Falaye and S. M. Ikhdaire, "Relativistic symmetries with the trigonometric Pöschl-Teller potential and Coulomb-like tensor interaction," *Chinese Physics B* **22**(6) (2013) 060305.

DOI:10.1088/1674-1056/22/6/060305..

127. S. M. Ikhdaire, "Symmetry in the Tietz-Hua potential and the Coulomb tensor coupling interaction," *Chinese Physics B* **22** (9) (2013) 090305.

128. S. M. Ikhdaïr and M. Hamzavi, “Effect of magnetic and Aharonov-Bohm flux fields on the energy eigenvalues of a class of molecular potentials,” submitted to *Z. für Naturforschung A* (2013)

129. S. M. Ikhdaïr, R. Sever and B. J. Falaye, “Spinless particle in the field of scalar-vector Harmonic oscillator in the presence of uniform magnetic and AB flux fields,” *submitted to JAAUBAS (2013); JAAUBAS-D-13-00008.*

130. M. Eshghi and S. M. Ikhdaïr, “**Relativistic quadratic scalar and vector potentials including tensor interaction,**” *submitted to Advances in High Energy Physics (2012).*

131. B. J. Falaye and S. M. Ikhdaïr, “Relativistic symmetries with the trigonometric Pöschl-Teller potential plus Coulomb-like tensor interaction,” *to appear in Chinese Physics B (2013) CPB122213.*

12.2 Scientific International Conferences and Printed Books (Proceedings).

1) Abdus-Salam ICTP conference, Centro Internazionale di Fisica Teorica, Miramare, Trieste, Italy (1992).

2) Abdus-Salam ICTP conference, Centro Internazionale di Fisica Teorica, Miramare, Trieste, Italy (1996).

3) Invitation to give talks on Ikhdaïr’s recent works in Department of Physics at East China University of Science and Technology (ECUST), No.130, Meilong Rd., Xuhui District, 200237, Shanghai, people’s Republic of China (2011).

4) The Second International symposium on Electrical Electronic and Computer Engineering and Exhibition (NEU-CEE 2004), 11-13 March 2004, NEU, Nicosia, Cyprus.

5) Cairo International Conference on High Energy Physics, (CICHEP 2001), 9-14 January 2001, Cairo, Egypt.

12.3 Printed International books or chapters in books

1. S. M. Ikhdaïr, “Bethe-Salpeter Equation for Non-self-Conjugate Mesons in a Power Law Potential,” *IC/92-186-5925/92*, Abdus-Salam Int. Centre for Theoretical Physics, Internal Report, Miramare, Trieste, Italy, 1992.

12.4 Published Papers in the National Journals

1. S. M. Ikhdaïr and R. Sever, "Application of the Inversion Method to the Heavy Quarkonium Systems," *Tr. J. Phys.*, **14**, 265-274 (1990).
2. S. M. Ikhdaïr, O. Mustafa and R. Sever, "A Light and Heavy Meson Spectra in the Shifted $1/N$ Expansion Technique," *Tr. J. Phys.*, **16**, 510-518 (1992).
3. S. M. Ikhdaïr, O. Mustafa and R. Sever, "Bound-States of Some Quark-Antiquark Potentials," *Tr. J. Phys.*, **17**, 474-481 (1993).

12.5 Printed Scientific Papers in National Conferences

1. S. M. Ikhdaïr and H. Albreem, "Practical Measurements on the Half-Wave Dipole Antennas", 2. *International Symposium on the Electrical and Computer Engineering and Exhibition, NEU-CEE 2004, NEU, Nicosia, Cyprus, 13 March 2004.*

13. Projects and Current High Quality Research Grants

- 1) Four projects presented to Scientific and Technological Council of Turkey (Tübitak) Research Grants (2006). IJMPA
- 2) Ten Tübitak Research Grants (2007) (150482, 150484, 150486, 150488, 150490, 154075, 160431, 161849, 165884, 166039).
- 3) Four Tübitak Research Grants (2008) (175438, 175443, 188643, 188644)
- 4) Seven Tübitak Research Grants (2009) (195453, 197226, 199038, 200381, 203884, 205470, 212419).
- 5) Three Tübitak Research Grants (2010) (222126, 223347, 224104)
- 6) Two Tübitak Research Grants (2011) (253423, 258007)
- 7) Eleven Tübitak Research Grants (2012): 273086- Physica Scripta (B), 275645- Applied Mathematics and Computation (A), 279038- Molecular Physics (B), 280267- Journal of Mathematical Physics (B), 283174- Physica Scripta (B), 284021- Chinese Physics B (B), 286936- Molecular Physics (B), Journal of Mathematical Chemistry (B), Chinese Physics B (B), Chinese Physics B (B); Chinese Physics B (B).

14. Administrative Duties

| | | |
|------------------|----------------------|-------|
| Physics Chairman | Near East University | 1993- |
| 2005 | | |

15. Membership in Scientific Institutes

Who's Who in the World, 2010 Edition, 890 Mountain Avenue, New Providence, NJ 07974, USA www.marquiswhoswho.com

16. Prizes and Research Awards

- 1) An-Najah National University Award provided to highly-honoured students in B. Sc., Nablus, Palestine (1985).
- 2) Award from the Arab Students Aid International, New Jersey, USA, given from prince Turkey Ibin Abdul-Aziz- to support the completion of my Ph. D Dissertation in METU (from 1988 to 1992).
- 3) Abdus-Salam ICTP conference financial support, Trieste, Italy (1992).
- 4) Abdus-Salam ICTP conference financial support, Trieste, Italy (1996).
- 5) Research Funds-Internationally Recognized SCI-Journals), Near East University, Nicosia, TRNC (2005, 2006, 2007, 2008, 2009 and 2010).
- 6) Research Funds are given to support the best publications in - Internationally Recognized SCI-Journals (TÜBİTAK-Scientific and Technological Research Council of Turkey), Ankara, Turkey (2006-4, 2007-10, 2008-4, 2009-7, 2010-3, 2011-2 and 2012-10) (High quality:40 projects).
- 7) Certificate of Appreciation, Near East University Outstanding Research Award in the field of High Energy Physics, Near East University, Nicosia, TRNC (Academic year 2007-2008, 2008-2009, 2009-2010, 2010-2011).

17. Professional Services: Review Duties

- (1) Physica Scripta (Institute of Physics-IOP) United Kingdom and Sweden
- (2) Applied Mathematics and Computation (Elsevier) United States and Netherlands
- (3) Fizika (Croatian Physical Society-Zagreb) Croatia
- (4) SIGMA (Symmetry, Integrability and Geometry, Methods and Applications) (Springer) Germany-Ukraine.
- (5) International Journal of Theoretical Physics (Springer) Netherlands
- (6) Zeitschrift für Naturforschung: Germany
- (7) International Journal of Modern Physics A (World Scientific) Singapore
- (8) Molecular Physics (Taylor & Francis; Psychology Press; CRC Press; Garland Science; Routledge Taylor & Francis Company) United Kingdom
- (9) Journal of Mathematical Physics (American Institute of Physics-AIP) United States
- (10) Advances in High Energy Physics (Hindawi Company)
- (11) Pramana-Journal of Physics (Indian Academy of Physics) India
- (12) Chemical Physics Letters (Elsevier) Netherlands-Sweden-Switzerland-USA
- (13) Revista Mexicana de Fizika: Mexico
- (14) Canadian Journal of Physics: Canada
- (15) Modern Physics Letters A: Singapore
- (16) Central European Journal of Physics: Poland-Germany
- (17) Microstructures and Superlattices (USA)

18. Research Fields and Current Research Interests

- 1) **High Energy Physics- Spectroscopy of the ordinary and SUSY quarks including bound state spectra and decay widths obtained through various potential interactions.**
- 2) **Chemical Physics- Bound state energy spectra of rotation-vibration diatomic molecules.**
- 3) **Quantum Physics- Potential models and their applications to molecular and nuclear physics.**
- 4) **Mathematical Physics- Approximation schemes and analytical methods.**
- 5) **Quantum Information Science**

19. Taught Courses

19.1. Near East University

- 1) **General Physics I (PHY 101)**
- 2) **General Physics II (PHY 102)**
- 3) **Calculus I (MAT 101)**
- 4) **Calculus II (MAT 102)**
- 5) **Electromagnetic Theory I (EE 213)**
- 6) **Electromagnetic Theory II (EE 214)**
- 7) **Electromagnetic Wave Propagations and Antenna Theory (EE 316/469)**
- 8) **Electromagnetic Wave Propagations and Antenna Theory (EE 512)**
- 9) **Radar Systems (EE 442)**
- 10) **Digital Control Systems (EE 322)**
- 11) **Graduation Projects (EE 400)**
- 12) **Master and Ph. D. Thesis (EE 500)**

19.2 An-Najah National University

Teaching: Undergraduate and Graduate Courses in the Last Two Years

Undergraduate Level

- 1) **Physics I (10221101) Groups (3,10,20,26,2.22)**
- 2) **Physics II (10221102) Group (4)**
- 3) **Physics for Computer Information Technology (10221111/1)**
- 4) **Quantum Mechanics I (1/22354)**
- 5) **Electricity and Magnetism II (1/22451)**

Graduate Level (Master and PH.D.)

- 1) **Special Topics (1/422981)**
 - 2) **Advanced Classical Mechanics (1/422913)**
 - 3) **Mathematical Physics I (1/422561)**
 - 4) **Quantum Mechanics I (1/422531)**
-

5) Advanced Electrodynamics (1/422922)
