

Curriculum Vitae

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Personal Data:

- Full Name: Khaled Issa Mahmoud Nawafleh
- Date of Birth: February, ١٢, ١٩٦٥
- Place of Birth: Irbid-Jordan
- Nationality: Jordanian
- Sex: Male
- Marital Status: Married, five daughters and one son
- Academic Rank: Associate Professor

Education:

١. Ph.D. in Physics- University of Jordan, ٢٠٠٢.
Title of Thesis (Theory): Quantization of Constrained Systems Using the WKB Approximation.
٢. M.Sc. in Physics- University of Jordan, ١٩٩٨.
Title of Thesis (Theory): Constrained Hamiltonian Systems, A Preliminary Study.
٣. B.Sc. in Physics-Yarmouk University, ١٩٩٢.

Research Interest:

Constrained Systems, Hamilton-Jacobi formulation, the WKB method for constrained systems, and Fractional Calculus.

Work Experience:

١. Associate Professor in Mathematical Physics at Mu'tah University, Karak-Jordan, from February ٢٠٠٨-present.
٢. Head of the Department of Physics at Mu'tah University: / .
٣. Assistant Professor at Mu'tah University from February ٢٠٠٥ to February ٢٠٠٨.
٤. Full Lecturer at Mutah University from February ٢٠٠٣ to February ٢٠٠٥.
٥. Teaching assistant at Yarmouk University, Irbid-Jordan, from ١٩٩٩-٢٠٠٣. Teaching undergraduate physics labs at different levels.

٦. Lab instructor at Mutah University, Karak-Jordan, from ١٩٩٣-١٩٩٩. Teaching undergraduate physics labs at different levels.

Courses in Physics I Taught:

١. General Physics ١ (Phys ١٠١).
٢. General Physics ٢ (Phys ١٠٢).
٣. General Physics ٣ (Phys ٢٠١).
٤. General Physics Laboratory ١+٢ (Phys ١١١+ Phys ١١٢).
٥. Mathematical Physics ١ (Phys ٢٩٢).
٦. Mathematical Physics ٢ (Phys ٣٩٣).
٧. Classical Physics ١ (Phys ٣١١).
٨. Classical Physics ٢ (Phys ٣١٢).
٩. Electromagnetic Theory ١ (Phys ٣٣٤).
١٠. Quantum Physics ١ (Phys ٣٥١).
١١. Quantum Physics ٢ (Phys ٤٥٢).
١٢. Thermodynamics (Phys ٣٦١).
١٣. Properties of Matter (Phys ٢٧٣).
١٤. Intermediate Physics Laboratory (Phys ٤٢٢).
١٥. Mathematical Physics for graduate students, Master. (Phys ٥٠١).
١٦. Quantum Mechanics for graduate students, Master. (Phys ٥٥١).

Publications:

١. Hamiltonian Formulation of Classical Fields with Fractional Derivatives. By Raed S. Hijjawi, and **Khaled I. Nawafleh**. Accepted in *Mu'tah Lil-Buhuth Wad-Dirasat* (٢٠٠٨).
٢. Quantization of Higher Order Regular Lagrangians as First Order Singular Lagrangians Using Path integral Approach. By **Khaled I. Nawafleh**, and Ali A. Alsoub. *Jordan Journal of Physics* ١ (٢): ٧٣-٧٨ (٢٠٠٨).
٣. Hamilton-Jacobi Formulation of Systems with Gauge Conditions. By **Khaled I. Nawafleh**. *Dirasat, Pure Science*. ٣٤ (١): ١١٩-١٢٤ (٢٠٠٧).
٤. The Hamilton Formalism With Fractional Derivatives. By Eqab M. Rabei, **Khaled I. Nawafleh**, Raed S. Hijjawi, Sami I. Muslih, and Dumitro Baleanu. *J.Math.Anal.Appl.* : - ().
٥. On the WKB Approximation of Constrained Systems. By **Khaled I. Nawafleh**, Eqab M. Rabei, Moayad A. Al-Sabayleh, and Humam B. Ghassib. *Mu'tah Lil-Buhuth Wad-Dirasat*. ١٨ (٤): ١٢١-١٣٠ (٢٠٠٦).
٦. Hamilton-Jacobi Formulation of the Reduced Phase Space. By **Khaled I. Nawafleh**. *Mu'tah Lil-Buhuth Wad-Dirasat* (): - ().
٧. Quantization of Reparametrized Systems Using the WKB Method. By **Khaled I. Nawafleh**, Eqab M. Rabei, and Humam B. Ghassib. *Turkish Journal of Physics*. ٢٩: ١٥١-١٦٢ (٢٠٠٥).

٨. The Motion of a Spinning Particle in an External Electromagnetic Field as a Constrained System. By Eqab M. Rabei, **Khaled I. Nawafleh**, and Humam B. Ghassib. *Journal of Dynamical Systems and Geometric Theories*, ٢, ١-٦ (٢٠٠٤).
٩. Hamilton-Jacobi Treatment of Constrained Systems. By **Khaled I. Nawafleh**, Eqab M. Rabei, and Humam B. Ghassib. *International Journal of Modern Physics A*. ١٩ (٣): ٣٤٧-٣٥٤ (٢٠٠٤).
١٠. Treatment of Holonomic Constraints as Regular Systems. By **Khaled I. Nawafleh**. *Mu'tah Lil-Buhuth Wad-Dirasat*. ١٨ (٤): ١٢١-١٣٠ (٢٠٠٣).
١١. Hamilton-Jacobi Treatment of Lagrangians with Linear Velocities. By Eqab M. Rabei, **Khaled I. Nawafleh**, Yacoub S. Abdelrahman, and H.Y. Rashed Omari. *Mod. Phys. Lett. A*, ١٨ (٢٣), ١٥٩١-١٥٩٦ (٢٠٠٣).
١٢. Quantization of Constrained Systems Using the WKB Approximation. By Eqab M. Rabei, **Khaled I. Nawafleh**, and Humam B. Ghassib. *Physical Rev. A*. ٦٦, ٠٢٤١٠١ (٢٠٠٢).
١٣. Some Physical Applications of the Canonical Method. By Eqab M. Rabei, **Khaled I. Nawafleh**, and Humam B. Ghassib. *Hadronic Journal*, ٢٢, ٢٤١-٢٥٥ (١٩٩٩).

Languages:

Arabic: Mother Language, English: V. good.

Computer Skills:

ICDL Certificate.

References:

١. Professor Humam B. Ghassib. Department of Physics, University of Jordan, Amman-Jordan. (Email: humam@atf.org.jo).
٢. Professor Eqab M. Rabei. Department of Physics, Al al Bayt University, Mafraq-Jordan. (Email: eqabrabei@yahoo.com).
٣. Professor Mahdi Salem Lataifeh. Dean of the Faculty of Science, Mu'tah University, Karak-Jordan. (Email: mahdi@mutah.edu.jo).