

## Curriculum Vitae

Name: Ra'ed Shaker A. Hijjawi

Place and Date of Birth: Amman-Jordan, 21/ 12 / 1972.

Nationality: Jordanian

Address: Amman-Jordan

E-Mail: [hijjawi@mutah.edu.jo](mailto:hijjawi@mutah.edu.jo)

Education:

1. B.Sc. in physics- Jordan University-1995.
2. M. Sc. in physics- Jordan University-1998.
3. Ph.D. in physics- Jordan University-2002.

Staff member at Mut'ah University with ranks as follows:

- a- Assistant professor of physics (Feb.16, 2003 - Feb.16, 2008).
- b- Associate professor of physics (Feb.16, 2008 - Now).

Research Interest:

Theoretical Solid State Physics - Lattice Green's Function (pure and defect) , Mathematical Physics .

Physics courses that I have taught:

a. Undergraduate courses

General Physics I, General Physics II, Quantum Mechanics(I), Modern physics, Electromagnetic Theory (I), Meteorology, Electromagnetic Theory (II), Mathematical Physics (I), Mathematical Physics (II), Classical Mechanics (I), Mathematica for physics and Classical Mechanics (II).

b. Graduate courses

Mathematical Physics, Classical Mechanics , Quantum Mechanics(I), Quantum Mechanics(II), Quantum Field Theory, Solid State Physics, Methodology and Classical Electrodynamics.  
**Institution:** Mutah University, Physics Department.

**Publications:**

1. Hijjawi, R. S. and Khalifeh, J.M. (2002). “ Lattice Green's Function in the General Glasser Case”, **Int. J. Theo. Phys.**, 41( 9),1769-1780
2. Sakaji, A. Hijjawi, R. S. Shawagfeh, N., and Khalifeh, J. M. (2002). “ Lattice Green’s Function for the Body Centered Cubic Lattice”, **Int. J. Theo. Phys.**, 41 (5), 973-983.
3. Sakaji, A. Hijjawi, R. S. Shawagfeh, N., and Khalifeh, J. M. (2002). “Remarks on the Lattice Green's Function, the Glasser Case”, **J. Math. Phys.**, 43(1), 235- 242.
4. Hijjawi, R. S. (2004). “Lattice Green’s Function of Perturbed Body Centered Cubic Lattice. Revisited”, *Mwtah Lil-Buhuth Wad-Dirasat.* 19 (2), 63-74.
5. Hijjawi, R. S. J. H. Asad, A. Sakaji and Khalifeh, J.M.( 2004). “ Lattice Green’s Function for the Face Centered Cubic Lattice”, **Int. J. Theo. Phys.**, 43(11), 2299-2309.
- 6- Sakaji, A. Khalifeh, J. M., and Hijjawi, R. S. (2004). “Nonlinear Impurity for a square and BCC Lattices”, *Academic Open Internet Journal.* 12, 1-15, [www.acadjournal.com](http://www.acadjournal.com).
7. Asad, J. H. Hijjawi, R. S. Sakaji, A., and Khalifeh, J. M. (2004). “Resistance Calculation for an infinite Simple Cubic Lattice Application of Green’s Function”, **Int. J. Theo. Phys.**, 43(11), 2223-2235.
8. Asad, J. H. Hijjawi, R. S. Sakaji, A., and Khalifeh, J. M. (2005). “Remarks on Perturbation of Infinite Networks of Identical Resistors”, **Int. J. Theo. Phys.**, 44(4),471-483.
9. Asad, J. H. Hijjawi, R. S. Sakaji, A., and Khalifeh, J. M. (2005). “Capacitance between Two Points on an Infinite Grid”, **Eur. Phys. J. Appl. Phys.** 32, 149-154.
10. Asad, J. H. Hijjawi, R. S. Sakaji, A., and Khalifeh, J. M. (2005). “Infinite Network of Identical Capacitors by Lattice Green’s Function”, **Int. J. Mod. Phys. B** 19(24), 3713-3721.
11. Asad, J. H. Sakaji, A., Hijjawi, R. S. and Khalifeh, J. M. (2006). “On the Resistance of an Infinite Square Network of Identical Resistor-Theoretical and Experimental Comparison”, **Eur. Phys. J. B** 52, 365-370.
12. Hijjawi, R. S. (2006). “Lattice Green’s Function for the Diamond Lattice”, **Int. J. Theo. Phys.**, 45(1), 135-146.
13. Hijjawi, R. S. Asad, J. H Sakaj, A., and Khalifeh, J. M. (2007). “Perturbation of an Infinite Network of Identical Capacitors”, **Int. J. Mod. Phys. B**, 21(2), 199-209.

14. Rabei E. M., Nawafleh K. I., Hijjawi R. S., Musleh S. I. and Baleanu, D.,(2007). “The Hamilton Formalism with Fractional Derivatives”, **J. Math. Anal. Appl.**, 327,891-897.
15. Hijjawi, R. S., Asad, J. H Sakaj, A., Al-sabayleh, M. and Khalifeh, J. M. ,(2008).“ Infinite Simple 3D Cubic Lattice of Identical Resistors ( Two Missing Bonds””, **Eur. Phys. J. Appl. Phys.** 41, 111-114.
16. Hijjawi, R. S. and Nawafleh, K. I. (2008) “The Hamilton Formulation of Classical Fields with Fractional Derivatives”, **Mu'tah Lil-Buhuth Wad-Dirasat** (accepted).
17. **Owaidat, M. Q.**, Hijjawi, R. S., and Khalifeh, J. M. ,(2009) “Substitutional Single Resistor in an Infinite Square Lattice Application to Lattice Green's Function”, **J. Modern Physics Letters B** (accepted).
18. Hijjawi, R. S. Asad, J. H Sakaj, A., and Khalifeh, J. M. (2009). “Infinite Networks of Identical Capacitors”, **J. Modern Physics Letters B** (accepted).

**Graduate Student Theses and Dissertation supervised:**

1. Ashraf Diab: PhD
2. Emad Jaradat: Ph.D.

