

# Curriculum Vitae

Nidal M. Ershaidat

نضال محمد الرشيدات

Nov. 2018

## Name: ERSHAIDAT

First name: Nidal

Profession : Professor of Physics

Permanent Address : Physics Department, The University of Jordan  
: 11942 Amman JORDAN

Nationality : Jordanian and French

Date/Place of Birth : 26/07/1958 Irbid Jordan

Marital status : Married, 2 children

Phone (Office) : +962 6 535 500 Ext. 22059

Phone (home) : +962 6 569 1210 Fax (home) : +962 6 5 665 246

Email : enidal@yu.edu.jo

WebPages : <http://eacademic.ju.edu.jo/N.Ershaidat/default.aspx>  
<http://ctaps.yu.edu.jo/physics/NErshaidat>

## Education

Year	Diploma	Institution
1995	Doctorat de l'Université P. & M. Curie (Très Honorable)	Université Pierre et Marie Curie (Paris 6) 75005 Paris France
24 Feb.		
1983	Doctorat de 3ème cycle en Physique Nucléaire	Université Paris-Sud, Centre d'Orsay 91000 Orsay France
8 Nov.		
1981	Diplôme d'Etudes Approfondies	
1979	Licence Es Sciences, Physique	Université Pierre et Marie Curie (Paris 6) 75005 Paris France
1980	Maîtrise Es Sciences, Physique	
1978	Diplôme d'Etudes Universitaires Générales (D.E.U.G - A)	Université des Sciences et Techniques de Lille USTL, Lille I, 59000 Lille France
1976	Diplôme de Langue Française	CAREL 17200 Royan France
1975	General Secondary Certificate Scientific Branch (91.2/100)	Zarqa Secondary School Zarqa, Jordan

## **T**itles of Theses

- 1995 Doctorat de l'Université P. & M. Curie.  
Direct production of  $J/\psi$  in the  $Z^0$  decays at DELPHI.  
Publisher: Université P. & M. Curie, Paris, France.
- 1983 Doctorat de 3ème cycle  
Study of an Aerogel Silica Detector for the  $\Omega'$  spectrometer. Study of fast protons production in the  $\pi^\pm$  - Nucleus interactions at 30 GeV/c.  
Publisher: Université Paris X1, Centre d'Orsay, No. 3541 November 1983.
- 1981 Master Degree thesis (Mémoire de DEA)  
Study of an Aerogel Silica Detector. Unpublished.

## **E**mployment Record

- 1) Professor  
Physics Department, The University of Jordan, Amman Jordan.  
January 2016 - Present.
- 2) Professor  
Physics Department, Yarmouk University, Irbid Jordan.  
June 2015 - January 2016.
- 3) Associate Professor  
Physics Department, Yarmouk University, Irbid Jordan.  
September 2010 - June 2015
- 4) Associate Senior Physicist  
Fermi National Laboratory, Batavia, IL, USA  
September 2010 - Present.
- 5) Associate Senior Physicist
  - Fermi National Laboratory, Batavia, IL, USA and
  - Laboratoire de Physique Nucléaire et de Hautes Energies (LPNHE), Universités Paris 6 & 7 et CNRS, Paris France.Sabbatical Leave Sep. 2008 - Sep. 2010.
- 6) Associate Professor  
Physics Department, Yarmouk University, Irbid Jordan.  
December 2006 - Aug. 2008
- 7) Consultant for Internet Affairs, Al-Balqa' Applied University  
September 2002 - May 2003
- 8) Assistant Professor

Physics Department, Yarmouk University, Irbid Jordan

September 2001 – December 6, 2006

- 9) Ingénieur d'Etudes, Mak-System France (Software for Blood Transfusion)  
September 2000-August 2001 (one Year Leave of Absence)
- 10) Assistant Professor, Physics Department, Yarmouk University, Irbid Jordan  
March 1995 - September 2000
- 11) Associated Physicist, CERN, Geneva, Switzerland  
November 1991 - February 1995
- 12) Physics Instructor, Physics Department, Yarmouk University, Irbid Jordan  
September 1988 – October 1991
- 13) Visiting Physicist, The HPC group of DELPHI, CERN, Geneva, Switzerland  
January 1988 - August 1988. (Leave of Absence – Yarmouk University)
- 14) Teaching and Research Assistant, Physics Department, Yarmouk University, Irbid, Jordan  
September 1986 - December 1987
- 15) Military Service, Jordan  
September 1984 - September 1986
- 16) Associate Researcher (Chercheur Associé)  
L.PN.H.E, Universités Paris 6 & 7, 4 Place Jussieu, Tour33 RDC,  
75252 Paris Cedex France and CERN  
November 1983 - August 1994

## **P**rofessional experience

### Teaching

- Physics Department, The University of Jordan (PDJU), Amman, Jordan
- See Appendix 1.
- Physics Department, Yarmouk University (PDYU), Irbid, Jordan
- See Appendix 1

### Experimental Physics

- The WA72 Experiment at CERN.
- The WA74 Experiment at CERN.
- The DELPHI-HPC production group at CERN.
- The DELPHI Experiment at LEP at CERN.
- The CDF Experiment at FNAL, Fermi National Laboratory, Batavia, IL, USA

### Relevant Experience

- I initiated with two of my colleagues an XRF (X-Ray Fluorescence) Laboratory.
- I initiated with two of my colleagues a full project establishing an equipped laboratory for Computational Physics at PDYU.

## **P**rofessional and Scientific Meetings

1) 9<sup>th</sup> Petra School of Physics

The University of Jordan & Yarmouk University, Jordan, October 9-11.

*Member of the Advisory Committee.*

2) 2017 TAIEX Workshop on GEANT, H2020 and European Synchrotron Sources

Organized by the European Union and the Jordan Atomic Energy Commission

Amman, Jordan, Aug. 12-13.

3) 2010 The Third International Symposium on Nuclear Energy - ISNE-10.

Organized by Al-Balqa Applied University (BAU) Salt, Jordan and Jordan Nuclear Regulatory Commission (JNRC).

Amman Jordan, Dec. 15-17.

*Member of the Scientific Committee.*

4) 2010 The Joint Korea-France Collider Physics Workshop.

Organized by College of Natural Science in Kyungpook National University, Daegu, South Korea.

Kyungpook National University, Daegu, South Korea, June 28-30.

Presented a paper.

5) 2009 The 2009 France Korea Laboratory for Particle Physics (FKPPL) CDF Workshop.

Organized by Laboratoire de Physique Nucléaire et de Hautes Energies (LPNHE)

IN2P3 -CNRS - Universités Paris VI et Paris VII.

Paris, France, June 29 – July 1

Member of the organizing committee, webmaster of the workshop's website and presented a paper.

6) 2007 6<sup>th</sup> SESAME Users Meeting 2007.

Organized by the Jordanian Committee for SESAME

Amman, Jordan 6-8 Nov. 2007

7) 2007 7<sup>th</sup> Workshop on Nuclear Techniques in Environmental Studies

Organized by CTAPS (Center for Theoretical and Applied Physical Sciences) and the Physics Department, Yarmouk University (PDYU), 21163 Irbid Jordan (PDYU).

Yarmouk University, Irbid, Jordan, 6-9 September 2005. *Presented a paper.*

8) 2006 6<sup>th</sup> Workshop on Nuclear Techniques in Environmental Studies

Organized by CTAPS and the PDYU, Irbid Jordan.

Yarmouk University, Irbid Jordan, 6-9 September 2005. *Presented a paper.*

9) 2005 4<sup>th</sup> SESAME Users Meeting 2005

Organized by the Jordanian Committee for SESAME

Amman, Jordan 6-8 Dec. 2005.

10) 2005 5<sup>th</sup> Workshop on Nuclear Techniques in Environmental Studies

Organized by CTAPS and the PDYU, Irbid Jordan.

Yarmouk University, Irbid Jordan, 12-14 September 2005.

11) 2004 4<sup>th</sup> Workshop on Nuclear Techniques in Environmental Studies

Organized by CTAPS and the PDYU, Irbid Jordan.

Yarmouk University, Irbid Jordan, 13-15 September 2004.

12) 2nd SESAME Users Meeting 2003

Isfahan University of Technology (IUT), 29 Nov. – 1 Dec. 2003, Isfahan Iran

Organized by Center for International Research and Collaboration (ISMO), Tehran, Iran, IUT, Isfahan, Iran and the Physics Society of Iran.

Sponsored by: UNESCO and Abdus Salam ICTP.

Invited Speaker in X-Ray Fluorescence. Elected Coordinator for the XRF Beamline at SESAME

13) 2003 3<sup>rd</sup> Workshop on Nuclear Techniques in Environmental Studies

Organized by CTAPS and the PDYU, Irbid Jordan.

Yarmouk University, Irbid Jordan, September 16-18 2003.

14) 2002 JASS (Japanese Asian Scientific Seminar) on Synchrotron Radiation

Organized by JSPS and Al-Balqa Applied University (BAU), 19117 Salt Jordan.

BAU, Jordan, 16-28 October 2002.

(Member of the organizing Committee and presented a paper: Elemental Analysis of Colorectal Cancer Samples using XRF Techniques)

15) 2002 2<sup>nd</sup> Workshop on Nuclear Techniques in Environmental Studies

Organized by CTAPS and the PDYU, Irbid Jordan.

Yarmouk University, Irbid Jordan, 23-25 September 2001.

(Member of the organizing Committee)

16) 2001 1<sup>st</sup> Workshop on Nuclear Techniques in Environmental Studies

Organized by CTAPS and the PDYU, Irbid Jordan.

Yarmouk University, Irbid Jordan, 24-26 September 2001.

17) 2001 (MSM-01) - 2<sup>nd</sup> Regional Conferences on Magnetic and Superconducting Materials

Organized by the PDYU, Irbid Jordan.

Yarmouk University, Irbid Jordan, 9-13 September 2001.

(Member of the organizing Committee and webmaster of the conference's site)

18) 1999 1<sup>st</sup> Workshop on Medical and Radiation Physics

Organized by the Applied Sciences University, Amman, Jordan.

ASU, Jordan, 3-4 March 1999. (Invited Lecturer)

19) 1998 Workshop on the use of Computers in Physics Teaching.

Organized by Arab Organization for Sciences, Culture and Education (Tunis, Tunisia) and Yarmouk University, Irbid Jordan.

Yarmouk University, Irbid Jordan, 16-19 November 1997.

(Member of the organizing Committee and Lecturer)

20) 1998 Sixth Petra School of Physics.

Jordan & Yarmouk Universities, Jordan, November 3-10.

21) 1997 Workshop on the use of Computers in Physics Teaching.

Organized by Arab Organization for Sciences, Culture and Education (Tunis, Tunisia) and Yarmouk University, Irbid Jordan.

Yarmouk University, Irbid Jordan, 16-19 November 1997.

(Member of the organizing Committee and Lecturer)

22) 1996 Workshop on the use of Personal Computers and Multimedia in Physics Teaching.

Organized by ROSTAS (UNESCO Regional Office) Cairo (Egypt), UNESCO, Paris (France), and Yarmouk University, Irbid Jordan.

Yarmouk University, Irbid Jordan, 8-10 April 1996.

(Secretary of the organizing Committee)

23) 1990 Workshop on the use of Personal Computers in Physics.

Organized by Yarmouk University and ICTP, Trieste, Italy

Yarmouk University, Irbid Jordan, 3-10 September 1990.

(Member of the organization Committee & Lecturer)

24) 1989 Fifth Petra School of Physics.

Jordan & Yarmouk Universities, Jordan, September 3-10.

25) 1987 2nd Workshop on Nuclear Reactors.

University of Jordan, Amman, Jordan, December 9-13 1987.

26) 1985 Gif sur Yvette Summer School in particle physics.

Clermont-Ferrand, France, September 9-13 1985.

27) 1984 50th Anniversary of Artificial Radioactivity.

Cinquantenaire de la Radioactivité Artificielle

Université Pierre et Marie Curie (Paris 6), 21 March 1984.

(Member of the organizing Committee & Editor)

28) 1982 XXI International Conference on High Energy Physics.

Paris, France, 26-31 July 1984.

29) 1982 International Colloquium on the History of Particle Physics.

Paris, France, 21-23 July 1984. (*Scientific Secretary*)

## **O**ther professional activities (Selected)

1- Refereed many research papers for publication in national scientific research journals.

a) Abhath Al-Yarmouk: Basic Sciences & Engineering.

b) Jordan Journal of Physics.

2- I served as a referee for many papers for publication in international scientific research journals.

□ Referee for the Springer Journal: "Environmental Geology"

<http://www.springer.com/geosciences/geology/journal/254>.

□ Referee for the Elsevier Journal: "Journal of Environmental Radioactivity"

<http://www.journals.elsevier.com/journal-of-environmental-radioactivity>.

□ Referee for the Elsevier Journal: "Science of the Total Environment"

<http://www.journals.elsevier.com/science-of-the-total-environment/>.

□ Referee for the Elsevier Journal: "Stochastic Environmental Research and Risk Assessment"

<http://link.springer.com/journal/477>.

□ Referee for the SAGE Journal: "Indoor and Built Environment"

<http://www.uk.sagepub.com/journals/Journal201661?siteId=sage-uk&prodTypes=any&q=indoor&fs=1>

- Member of the Scientific Research Regulations Committee - the University of Jordan (Oct. 2018-)
- Member of the Scientific Research Council of the University of Jordan (Nov. 2017-)
- Member of the Graduate Studies Committee - Faculty of Science - the University of Jordan (Sep. 2017-)
- Member of the Distinguished Researcher Committee - the University of Jordan (Sep. March 2018)
- Member of the Council of the Centre for Theoretical and Applied Physical Sciences (CTAPS), Yarmouk University, Irbid, Jordan. (Academic year 2012-2013)
- Member of the National Advisory Team for SESAME (2001-2004)
- Coordinator of the XRF Beamline for SESAME (2003-2004)

Supervision of M. Sc. Theses

(Physics Department, Yarmouk University, Irbid, Jordan)



- (1) Talafha, Mohammed (Dec. 2016). "An open-source package for the study of abundance of elements in stars".
- (2) Al-Mardini, Mohammad (2014). "Processes of fluorine production in stars and analysis of observational data".
- (3) Hayajneh, Sakher (2012). "Diffusion of radon gas through different building materials". (co-supervisor)
- (4) Dalki, Islam R. (2011). "Modeling soil radon diffusion comprising soil properties".
- (5) Al-reyashi, Waleed (2011). "A comparative study of soil radon levels using active and passive detectors".
- (6) Oudat, Osama (2011). "Measurement of radon levels in soil over phosphatic formations and its relation with the soil physical properties". (co-supervisor)
- (7) Abood, Ziad M. (2000). "Study of breast cancer using XRF techniques", (A colleague replaced me during my leave of absence).
- (8) Hamadneh, Hamid S. (1999). "Comparative elemental analysis of colorectal cancer samples using XRF techniques".

Member of the **examination committee** of Ph. D. Theses

The University of Jordan, Amman, Jordan

- (1) Megdady, Loay (Dec., 2015). "Proton-nucleus scattering using realistic Coulomb potential in the framework of a velocity-dependent optical model". Department of Physics.
- (2) Ababneh, Eshraq M. (Dec., 2016), "Development of an applicable algorithm for brachytherapy dose calculation in heterogeneous media".
- (3) Rawashdeh, Sokainah M. (May, 2018), "Deforming the spherical optical potential to fit the neutron scattering angular distributions from the statically actinides nuclei".

Member of the **examination committee** of M. Sc. Theses

The University of Jordan, Amman, Jordan

- (4) Noufal, Lubna K, (April, 2018) "Modes of operation of germanium detector arrays with active shields".
- (5) Al-Tamimi Alaa (Dec., 2017). "Studying the importance of channel coupling and compound nucleus reactions in the elastic scattering process by fitting low energy neutron-nucleus elastic angular distributions". Department of Physics.
- (6) Al-Hiyari, Ala'a (May, 2017). "Multidimensional gamma-ray spectroscopy of neutron activated natural zinc". Department of Physics.
- (7) Alabsi, Areej (2016). "Studying the effect of spin-orbit potential forms on the parameters of the optical model". Department of Physics.

Al Al-Bayt University, Mafraq, Jordan

- (8) Ali Ahbika (2018). *"Determination of The Low-energy Parameters of Neutron-Proton Scattering For Various Nucleon-Nucleon Potential Using Partial Wave Analysis"*
- (9) Al-thyabat, Ahmed (2013). *"Complex study of the binary stellar system HD 25811"*. Department of Physics.
- (10) Abu Hjailah, Majid (2012). *"Application of effective range theory to neutron-proton scattering at low energy"*. Department of Physics.
- (11) Al Marshidi, Salah (2011). *"Theoretical study for electron scattering from closed-shell nuclei in the framework of particle-hole configuration"*. Department of Physics.
- (12) Taani, Ali (2008). *"Photometric (Optical) Variability of Some Close Binaries"*. Institute of Astronomy and Space Sciences (IASS).

Department of Geology and Environmental Science, Yarmouk University 21163 Irbid Jordan

- (13) Jaradat, Ahmad S. (2006). *"Investigation of the possibility of use radon diffusion through soil for estimation of recharge zones in an arid area"*.

PDYU (18)

- (14) Al-Qshoush, Audai H. (April, 2018). *"Dose Assessment Due to Gamma Radiation from Terrestrial and Some Contamination in Husha and Alhamra Region, North Badia of Jordan"*.
- (15) Al-Ahmad, Qais F. (2016). *"Determination of Radon Concentrations in Water Samples in Bani Kananah District - Jordan, using SSNTD's and Liquid Scintillation Counting"*.
- (16) Hailat, Tariq F. (2016). *"Measurement of radon and thoron concentration levels in Disi soil using CR-39 Detector"*
- (17) Rawashdeh, Sumayya A. (2016) *"Measurement of radon gas concentration in Jerash drinking water in Jordan"*.
- (18) Bani Amer, Zainab M. (2014). *"Daily Maximum Temperature forecasting by artificial neural network (ANN) in Jordan"*.
- (19) Kanaan, Hadeel (2014). *"Investigating the habitability of exoplanets"*.
- (20) Isaa, Noor A. (2013). *"New Physical and Geometrical Elements of the X-Ray Binary System (RX J1015.5+0904)"*.
- (21) Al-Khasawneh, Belal (2012). *"Investigating the gravitational properties of dark matter"*.
- (22) Masda, Suhail G. (2012). *"Physics and Geometrical elements of the visually close binary system HIP 689"*.
- (23) Momani, Ali (2008). *"Gamma radiation measurements and dose rate calculations of soil samples within and around Ras Muneef, Jordan"*.

- (24) Qarqaz, Toqa (2007). "*Estimation of  $^{238}\text{Uranium}$  and  $^{230}\text{Thorium}$  concentration in Jordanian oil shale using CR-39 detectors*".
- (25) Daradkah, Munir (2007). "*A collapsing flat universe*".
- (26) Al-Issa, Adnan (2007). "*Longitudinal resistive-wall impedance for a gaussian beam of particles propagating in smooth cylindrical pipe*".
- (27) Abdel-Jawad, Ola (2006). "*Uranium content in Jordanian phosphate mines*".
- (28) Al-Haj Darwish, Mustafa Y. (2000). "*A software design for analysis of Mössbauer spectra of iron containing alloys*".
- (29) Nmmas, F. S. (2000). "*The entropy calculations of magnetic fluids using Monte Carlo technique*".
- (30) Al-Mahmoud, Emad (1999). "*Structural and Mössbauer studies of  $(\text{Fe}_{0.70}\text{Cu}_{0.30})_{90}\text{Cr}_{10}$  alloys*".
- (31) Abu Kharma H. (1998). "*Study of radon levels in the soil of Samma Town, north of Jordan*".
- (32) Al-Abdalla T., (1998). "*A study of the stoichiometry of Jordan water samples using XRF technique*".

## Academic Scholarships

- Scholarship from the Ministry of Education - Jordan (1975-1979) for the B. Sc. Degree.
- Scholarship from the Ministry of Research – France (1981-1984) for the Doctorat de 3<sup>ème</sup> cycle.
- Scholarship Yarmouk University, Irbid Jordan and the European Community (Brussels-Belgium) (Nov. 1991 – Feb. 1995):  
for the Doctorat de l'Université Pierre et Marie Curie (Paris 6) France.

## Research Grants

Source: Arab Fund for Economic and Social Development

1. "The Distinguished Scholar Award" from the Arab Fund Fellowships Program, Sep. 2009 – Sep. 2010.

Source: European Union & the Higher Council for Science and Technology

2. "Research Grant" awarded by the SRTD (Support to Research and Technological Development & Innovation Initiative & Strategies in Jordan) project.  
April 2009 – April 2010.

Source: CERN (The European Laboratory for Particle Physics), Geneva, Switzerland

3. Construction of the HPC (High Projection Chamber) for the DELPHI Detector (Jan. 1988 – Sep. 1988). Status: Visiting Researcher.

#### University Grants:

Source: The Deanship of Scientific Research and Graduate Studies, Yarmouk University.

- (a) Project: (# 38/99): Study of Breast Cancer using XRF. (1999)  
Status: Main investigator.
- (b) Project: (# 34/98): Study of Colorectal Cancer using XRF (1998)  
Status: Main Investigator with other co-investigators.

Source: The Abdel-Hameed Shoman Foundation, Amman Jordan.

Project: (# 32/00): Seasonal Variation of Radon-222 Radioactive Measurements in Areas of phosphate Occurrences in the West of Irbid Region – Jordan (2000-2006) Budget: 10000 JD. Status: Co-investigator.

## Publications

Google Scholar:

[https://scholar.google.com/citations?hl=en&user=qk0epG4AAAAJ&view\\_op=list\\_works](https://scholar.google.com/citations?hl=en&user=qk0epG4AAAAJ&view_op=list_works)

#### (I) Published Articles

- 1) Talafha, M.H., Al-Wardat, M.A. & **Ershaidat, N.M.** (2018).  
*"A Study of the Abundance of Low-Z Elements in the Sun During its Whole Predicted Life"*  
Astrophys. Bull. (2018) 73: 235. <https://doi.org/10.1134/S1990341318020098>.
- 2) **Nidal M. Ershaidat**, Wa'el Salah, (2018).  
*Analysis of the force exerted on an accelerated beam of electrons by its own wakefields in the laser driven Rf-gun.*  
**Jordan Journal of Physics, 11, 2, 115-124.**
- 3) Mahmoud H. Saleh, **Nidal M. Ershaidat**, Mais Jamil A. Ahmad, Basim N. Bulos, Mousa M. Abdul-Gader Jafar (2017).  
*Evaluation of spectral dispersion of optical constants of a-Se films from their normal-incidence transmittance spectra using Swanepoel algebraic envelope approach.*  
**Optical Review 24 pp 260-277.** <https://doi.org/10.1007/s10043-017-0311-5>.
- 4) **Ershaidat Nidal M.**, Al-Bataina B. A. and Al-Rayashi W. S. (2015). Comparative study of soil radon concentration levels using active and passive detectors. **Jordan Journal of Physics, 8(1) pp 29-37.**
- 5) **Ershaidat Nidal M.**, Almomani Raid R., Al-Bataina B. A. and Al-Rayashi W. S. (2013). Periodicity of diurnal variation of soil radon concentration levels and temperature. **Jordan Journal of Physics, 6 (2) pp 47-54.**

- 6) **Ershaidat, Nidal M. and Almomani Raid R.** (2013). Solvability of Differential Equations with Periodic Operator Coefficients Using Green's Function. **IJAMSS**, **2(3)**, 21-32.
- 7) **Ershaidat, N.M., Abu-jaber N. S., Al-Bataina, B.A., Shobaki J. M., and Jaradat A.S.** (2009). *Relationship between the Effective Diffusion Coefficient of Soil Radon and Groundwater Recharge in Semi-Arid Areas.* **Environ. Earth Sci.**, 59, 261-268.
- 8) **Ershaidat, N.M., Al-Bataina, B.A., and Al-Shereideh S.A.** (2008). *Characteristics of Soil Radon Transport in Different Geological Formations.* **Environmental Geology**, **55 (1): 29-35.** (Published Online DOI: 10.1007/s00254-007-0961-x (Aug. 18, 2007)).
- 9) **Ershaidat N.M.** Longitudinal Space Charge Impedance of Non-Resistive Cylindrical Pipe in the Presence of a Uniform Background of Charged Particles (2006). **Abhath Al-Yarmouk: Basic Sci. & Eng.**, **15(2): 237-248.**
- 10) Al-Shereideh, S. A., Al-Bataina, B. A., and **Ershaidat, N. M.** (2006). Seasonal Variations and Depth Dependence of Soil Radon Concentration Levels in Different Geological Formations in Deir Abu-Said District, Irbid – Jordan. **Radiat. Meas. Vol. 41, 6, 703-707.**
- 11) El-Ali, A., **Ershaidat, N.,** Al-Sharif, A. I., Al-Khateeb A. M., and Mahmood, S. H. (2005). *Effects of Screening on the Plasmon Bands in Metallic Superlattices.* **AJSE (The Arabian Journal for Science and Engineering)** **30 (2A): 229-236.**
- 
- 12- 74 papers with the DELPHI Collaboration at CERN (The European Laboratory for  
85) Particle Physics). Authors' names are written alphabetically and in all citation systems they are referred to with the first author's name et. al.  
List upon request - Please refer to Appendix 2. The following URL gives the list.  
[http://inspirehep.net/search?ln=en&as=1&m1=a&p1=Ershaidat&f1=author&op1=a&m2=a&p2=Delphi&f2=collaboration&op2=a&m3=a&p3=&f3=&action\\_search=Search&sf=&so=d&rm=&rg=25&sc=0&of=hb](http://inspirehep.net/search?ln=en&as=1&m1=a&p1=Ershaidat&f1=author&op1=a&m2=a&p2=Delphi&f2=collaboration&op2=a&m3=a&p3=&f3=&action_search=Search&sf=&so=d&rm=&rg=25&sc=0&of=hb)
- 
- 86- 143 papers with the CDF Collaboration at Fermilab (The Fermi National Accelerator  
229) Laboratory). Authors' names are written alphabetically and in all citation systems they are referred to with the first author's name et. al.  
List upon request - Please refer to Appendix 3. The following URL gives the list.  
[http://inspirehep.net/search?ln=en&ln=en&p=au+ershaidat+and+cn+cdf&of=hb&action\\_search=Search&sf=year&so=a&rm=&rg=100&sc=0](http://inspirehep.net/search?ln=en&ln=en&p=au+ershaidat+and+cn+cdf&of=hb&action_search=Search&sf=year&so=a&rm=&rg=100&sc=0)
- 230) M. G. Abreu, T. Armstrong, M. Baubillier, W. Beusch, A. Burns, **N. Ershaidat**, J. Gago, A. Jacholkowski, K. Knudson, S. Otwinowski, D. Perrin, A. Palano, M. Pimenta, E. Quercigh, Z. Strachman, M. Szeptycka, S. Tkaczyk, R. Walczak and R. Zitoun (1984). *Study of the A-dependence of inclusive  $p, \bar{p}, \Lambda$  and  $\bar{\Lambda}$  production in  $\pi^\pm$ -Nucleus interactions at 30 GeV/c.* **Zeit. Phys. C 25: 115-120.**

(II) Abstracts and Articles presented to Conferences, Workshops... (selected)

- 1) **Ershaidat, Nidal** (2010). Review Status of CDF GRID at KISTI at CC-IN2P3 Lyon. The 2009 France Korea Laboratory for Particle Physics (FKPPL) CDF Workshop. Organized by LPNHE- IN2P3 -CNRS - Universités Paris VI et Paris VII. Paris, France, June 29 - July 1.
- 2) **Ershaidat, Nidal** (2010).  $\sin 2\beta_s$  in  $B_s$  sector ( $B_s \rightarrow J/\Psi\phi$  Decays) at CDF. The Joint Korea-France Collider Physics Workshop. Organized by Kyungpook National University, Daegu, Republic of Korea, June 28-30.
- 3) **Ershaidat, N.M.**, Al-Bataina, B.A. and Al-Shereideh S.A. (2007). Characteristics of Soil Radon Transport in Different Geological Formations. 7th Workshop on Nuclear Techniques in Environmental Studies. Organized by CTAPS and the PDYU, Irbid Jordan. Yarmouk University, Irbid Jordan, September 2007.
- 4) Al-Shereideh, S. A., Al-Bataina, B. A. and **Ershaidat, N.M.** (2005). Seasonal variations and depth dependence of soil radon concentration levels in different geological formations in Deir Abu-Said District, Irbid - Jordan. 5th Workshop on Nuclear Techniques in Environmental Studies. Organized by CTAPS and the PDYU, Irbid Jordan. Yarmouk University, Irbid Jordan, September 2005.
- 5) Hallak, A., **Ershaidat N.** and others (2004). *A Proposal for XRF Beamline at SESAME*. 3rd SESAME Users Meeting Oct. 11-13, 2004 Antalya, Turkey. Organized by SESAME and Sabanci University, Ankara, Turkey.
- 6) **Ershaidat Nidal** (2003). X-Ray Fluorescence & Synchrotron Radiation induced X-Ray Emission (Review). Invited Speaker in X-Ray Fluorescence at the 2nd SESAME Users Meeting Isfahan University of Technology, 29 Nov. - 1 Dec. 2003, Isfahan Iran. Organized by (ISMO), Tehran, Iran, IUT, Isfahan Iran and the Physics Society of Iran.  
[http://ctaps.yu.edu.jo/Physics/Oldnershaidat/NE\\_SESAME.pdf](http://ctaps.yu.edu.jo/Physics/Oldnershaidat/NE_SESAME.pdf)
- 7) **Ershaidat Nidal** and Mahmood S. (2002). Elemental Analysis of Colorectal Cancer Samples using XRF Techniques. JASS (Japanese Asian Scientific Seminar) on Synchrotron Radiation 1st SESAME Users Meeting. Organized by JSPS and Al-Balqa Applied University (BAU), 19117 Salt Jordan. BAU, Jordan, 16-28 October 2002.
- 8) Al-Kofahi, M. M., Mahmood S.H., and **Ershaidat, N. M.** (1997). *The Use of PCs in Physics Teaching at Arab Universities*. An invited talk presented to the Workshop on the use of Computers in Physics Teaching, organized by the Physics Department at Yarmouk University, in cooperation with ALESCO (Tunisia)

and held at Yarmouk University, Irbid Jordan during the period 16-19 November 1997.

(III) Textbooks:

- (i) Al-Kofahi, Mahmoud M., Ghaith, Abdel-Salam, and **Ershaidat, Nidal**. February 2007  
Principles Of University Physics: Electricity and Magnetism.  
(In Arabic: مبادئ الفيزياء الجامعية: الكهرباء والمغناطيسية)  
Publisher: Dar Al-Amal Irbid Jordan
- (ii) Abu-Aljarayesh, I. and **Ershaidat, N.** (Sep. 2005)  
Practical Physics, Experiments in Fluids, Thermodynamics.  
Physics Department, Yarmouk University, Irbid, Jordan
- (iii) Mahmood, Sami and Ershaidat, Nidal. (1989, revised 2008)  
*Intermediate Lab. (Atomic, Nuclear & Quantum Physics)*.
- (iv) **Ershaidat, Nidal, Lahlouh Bashar**, (Sep. 2017). Practical Physics 5, Experiments in Modern, Quantum, Atomic and Nuclear Physics, 2<sup>nd</sup> Edition. Physics Department, The University of Jordan, Amman, Jordan
- (v) **Ershaidat, Nidal**. (2017)  
Principles Of University Physics: Thermodynamics.  
(In Arabic: مبادئ الفيزياء الجامعية: ديناميكا الحرارة). In preparation.

(IV) Theses:

- 1) **Ershaidat, Nidal** (1995).  
Production Directe de  $J/\psi$  dans la Désintégration du  $Z^0$  A DELPHI  
Publisher: Université P. & M. Curie, Paris, France, Feb. 24<sup>th</sup> 1995.
- 2) **Ershaidat, Nidal**. (1983). Etude d'un Compteur Cerenkov à Aérogel de Silice pour le spectromètre  $\Omega'$ . Etude de la production de protons rapides dans les interactions  $\pi^\pm$  - noyaux à 30 GeV/c.  
Publisher: Université Paris X1, Centre d'Orsay, No. 3541 November 8<sup>th</sup> 1983.

## Honors

- "The Distinguished Scholar Award" from the Arab Fund for Economic and Social Development Fellowships Program, Arab League, Kuwait, Sep. 2009.
- Competitive "Research Grant" awarded by the SRTD (Support to Research and Technological development & Innovation Initiative & Strategies in Jordan) project - Higher Council for Science and Technology, Jordan, April 2009.
- "Best Academic Performance at Yarmouk University 2007 Award", May, 19 2008.

- **Médaille « Irène et Frédéric Joliot-Curie » de l'Université Pierre et Marie Curie, Paris, France, 1984.**

For Active Participation in the celebration of the 50<sup>th</sup> anniversary of Artificial Radioactivity.



## References

1. Professor Sami Mahmood, (s.mahmood@ju.edu.jo), Dean (till 03 Sep. 2018)  
Faculty of Science  
The University of Jordan, 11942 Amman Jordan
2. Professor Nihad Yusuf (nihadyusuf@yu.edu.jo)  
Faculty of Science, Dean  
Yarmouk University, Irbid Jordan.
3. Prof. Reynald Pain, (reynald.pain@in2p3.fr)  
Director  
Institut National de Physique Nucléaire et de Physique des Particules. IN2P3  
Paris, France

## Research Interests

- Particle Physics & Nuclear Astrophysics.
- Beam Dynamics.
- Elemental analysis using the XRF & Gamma-rays techniques.
- Environmental Radon studies (Mapping and Modeling).

## Languages

Language	Spoken	Written	Comprehension
Arabic	Excellent	Excellent	Excellent
French	Excellent	Excellent	Excellent
English	Very Good	Excellent	Excellent

## Miscellaneous

Web

- Web publishing of several courses on the internet, See:

<http://ctaps.yu.edu.jo/Physics/Courses>

<http://faculty.yu.edu.jo/NErshaidat/Lists/Taught%20Courses/AllItems.aspx>



– Web Sites Design

Webmaster of the following sites:

<http://ctaps.yu.edu.jo/Physics>

<http://Environmental.yu.edu.jo>

<http://ctaps.yu.edu.jo/physics/CAMNST>

<http://msm01.yu.edu.jo/>

<http://www.mak-system.net> (Sep. 2000 - Aug. 2001)

<http://www.omnitrade.com/IRSHAIDAT> (Oct. 2006- ...)

- I was the web consultant of <http://www.bau.edu.jo> (Sep. 2002-May 2003)

**Community service** (Some relevant activities)

- I directed two workshops at the Faculty Development Center at Yarmouk University.

« *How to maintain your PC?* » (5 sessions - March 12-26 2006)

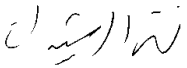
"*Webpage Design*". (April 25<sup>th</sup> and 27<sup>th</sup> 2006)

- Lecture entitled "Light - The Dual Nature", at The Islamic Scientific College - Amman Jordan (Feb. 28<sup>th</sup>, 2006)
- Seminar entitled "The Ozone hole", given at CTAPS, Yarmouk University Irbid Jordan, March 2002.
- I gave lectures in "waves" for a group of teachers from the Ministry of Education in Jordan. Irbid April 1999.
- Co-Author (with Mme J. Laberrigie-Frolow) of a 26 min. Scientific film: "Les Années Particulaires". (<http://marwww.in2p3.fr/IMG/pdf/016.pdf>)  
Production: C.N.R.S & A. Papillault Production, Paris (France), July 1984.
- Scientific advisor of "Irène et Fred", a 90 min TV film.  
Production: TF1, Paris (France), Director: Roger Kahane, December 1984.
- Good Knowledge in Web publishing (Almost all my courses are available on the internet) (See <http://ctaps.yu.edu.jo/physics/Courses/>)
- Good experience in radioprotection, thanks to several stays of various duration at CERN (Geneva) and at LPNHE, Université Paris 6.
- Good experience in data analysis.
- Deep Knowledge in FORTRAN, C++ and Object Oriented programming.

- Deep Knowledge of computer operating systems (Windows and Unix)
- Good Knowledge of software for physics and mathematics (MATHEMATICA)
- Deep Knowledge in Internet Programming (html, asp, JavaScript, php, etc ...).

I, Nidal M. Ershaidat, hereby certify that all the forgoing information and statements recorded are true and I bear complete legal responsibility.

Signature:



Place and Date: Amman 02/11/2018.

# Appendix 1

Physics courses taught at the Physics Department, The University of Jordan

<http://www.ju.edu.jo/>.

- Undergraduate Courses:

- Phys. 101 : General Physics 1 - Mechanics.  
Phys. 103 : General Physics for Life Sciences Students  
Phys. 281 : Mathematical Physics 1  
Phys. 311 : Practical Physics (Lab) 4  
Phys. 411 : Advanced Practical Physics (Lab) 5  
Phys. 763 : Nuclear Physics 1 - Graduate Course

Physics courses taught at the Physics Department Yarmouk University.

URL's for these courses are given in the table.

- Undergraduate Courses:

- Phys. 101 : General Physics - Mechanics.  
Phys. 102 : General Physics -Electromagnetism  
<http://ctaps.yu.edu.jo/physics/Phys102>  
Phys. 103 : Waves & Particles  
<http://ctaps.yu.edu.jo/physics/Phys103>  
Phys. 105 : General Physics - Mechanics, Laboratory 1.  
Phys. 106 : General Physics - Electromagnetism, Laboratory 2.  
Phys. 201 : Methods of Theoretical Physics 1  
<http://ctaps.yu.edu.jo/physics/Phys201>  
Phys. 207 : Waves and Light  
<http://ctaps.yu.edu.jo/physics/Phys207>  
Phys. 211 : Special Relativity.  
Phys. 221 : Waves & Light, Laboratory.  
Phys. 225 : Fluid Mechanics and Thermodynamics, Laboratory.  
Phys. 251 : Modern Physics 1.  
<http://ctaps.yu.edu.jo/physics/Phys251>

- Phys. 261 : Thermodynamics: <http://ctaps.yu.edu.jo/physics/Phys261>
- Phys. 281 : Geometric Optics: <http://ctaps.yu.edu.jo/physics/Phys281>
- Phys. 322 : Intermediate Lab. (Atomic, Nuclear & Quantum Physics).  
<http://ctaps.yu.edu.jo/physics/Phys322>
- Phys. 332 : Electromagnetic Theory 1:  
<http://ctaps.yu.edu.jo/physics/Courses/Phys332>
- Phys. 433 : Computer Methods and Techniques in Physics.  
<http://ctaps.yu.edu.jo/physics/Phys433>
- Phys. 441 : Nuclear Physics 1: <http://ctaps.yu.edu.jo/physics/Phys441>
- Phys. 444 : Elementary Particle Physics.  
<http://ctaps.yu.edu.jo/physics/Courses/Phys444>
- Phys. 491 : Special Topics (X-Ray Fluorescence, Particle Physics)
- Phys. 492 : Special Topics (Particle Physics)
- Phys. 499 : Research: <http://ctaps.yu.edu.jo/physics/Courses/Phys499>
- Graduate Courses:
- Phys. 601 : Mathematical Physics (M. Sc. Course)  
<http://ctaps.yu.edu.jo/physics/Courses/Phys601>
- Phys. 641 : Nuclear Physics (M. Sc. Course)  
<http://ctaps.yu.edu.jo/physics/Courses/Phys641>
- Phys. 645 : Environmental Physics (M. Sc. Course)  
<http://ctaps.yu.edu.jo/physics/Courses/Phys645>
- Phys. 649 : Nuclear Techniques (M. Sc. Course)  
<http://ctaps.yu.edu.jo/physics/Courses/Phys649>
- Phys. 692 : Special Topics (X-Ray Fluorescence & Particle Physics) (M. Sc. Course)