Day 1, Sunday, July 31, 2016

08:00–08:30	**Transportation from Haddad Hotel to THE ARAB AMERICAN UNIVERSITY**	
08:30–09:30	**Reception and registration, lobby of the AAUJ conference hall**	
09:30–10:20 **Zaki Saleh**	**Opening ceremony, AAUJ conference hall**	
10:20–10:40	**Morning break**	
10:40-11:30 **Plenary** Chair: **Adli Saleh**	**The Standard Model of Particle Physics, and Beyond.** ***Jonathan R. Ellis, King's College London, UK.***	
Parallel Sessions	**Mathematics** **Chair: Mahmoud Al-Manasra**	**Physics** **Chair:Sulaiman Rabbaa**
11:30-11:55 **Invited**	**Mathematical study of certain geophysical models: Global regularity and finite-time blow up results.** *Edriss Titi.* ***Texas A&M University, USA.***	**What is the role of momentum in light-matter interaction.** ***John Weiner.*** ***Professeur émérite à l'Université Paris-Sud, France.***
11:55-12:20 **Invited**	**On (m,n) closed ideals of commutative rings. Ayman Badawi.** *American University of Sharjah, UAE.*	**Many-body calculations for diatomic molecules .** ***John Morrison.*** ***University of Louisville, USA.***
12:20-12:45 **Invited**	**Global dynamics of discrete dynamical systems: Applications to population dynamics.** ***Saber Elaydi.*** ***Trinity University, USA.***	**Complex PT symmetric potentials: The linear case.** *R.J. Lombard and R. Mezhoud.* ***Insitut de Physique Nucleaire, France.***
12:45-13:00	**Generalization of alpha reversible and alpha symmetric rings.** *Iyad Alhribat and Abdelhadi Shabaan.* *Palestine Polytechnic University, Palestine.*	**Electron neutrino appearance at RENO-50 in a J-PARC-produced muon neutrino beam.** *Intesar Zalloum and Francesca Di Lodovico.* *Palestine Polytechnic University, Palestine.*
13:00-13:15	**Perfect zero divisor graphs.** *Khalida Nazzal.* *Palestine Technical University-Kadoorie, Palestine.*	**Contribution to the construction of the inner detector of ATLAS for the high luminosity phase of LHC and research for Higgs to invisible decay.** *Ahmed Bassalat.* *An-Najah National University, Palestine.*
13:15 –14:30	**Lunch break**	
Parallel Sessions	**Mathematics** **Chair: Abduhalim Ziqan**	**Physics** **Chair: Muayad Abusaa**
14:30-14:55 **Invited**	**On optimal homotopy asymptotic method (OHAM).** ***Yousef Zahaykah.*** ***Al-Quds University, Palestine.***	**Investigation of Ag/MgO/GaSe/Al optoelectronic microwave cavities.** *Atef Qasrawi and Renal Kmail.* *Arab American University, Palestine.*
14:55–15:20 **Invited**	**Advanced field interpolation methods in computational sciences.** ***Ahmed Khamayseh.*** ***Palestine Polytechnic University, Palestine.***	**Charge transfer catalysis at semiconductor/electrolyte interface: Enhancement of photo-electrochemical characteristics.** *Hikmat Hilal* and Ahed Zyoud. *An-Najah National University, Palestine.*
15:20–15:35	**Lie derivative and integrability of homogeneous functions.** *Marwan Alogeili.* *Birzeit University, Palestine.*	**Compact modeling of the contact effects in organic thin film transistors.** *Karam Awawdeh.* *Palestine Technical University-Kadoorie, Palestine.*

15:35–15:50	**Domain coarsening in a subdiffusive Allen-Cahn equation.** *Mohammad Abu Hamed.* *The College of Sakhnin.*	**Optical constants for non-crystalline Ti doped WO_3 thin films deposited by sol-gel dip coating.** *Iyad Saadeddin, Manar Shwahna, Mohammed Suleiman and Atef Qasrawi.* *An-Najah National University, Palestine.*
15:50–16:05	**Numerical eigenvalue solution for a short-range 1/r singular potential with any angular momentum.** *Abdulla Jameel Sous, Marwan Izzat El-Kawni.* *Al-Quds Open University, Palestine.*	**Simulation of Solar Cells based on Transfer Matrix Method.** ***Mohammed Shabat.*** *Islamic University of Gaza, Palestine.*
16:05-16:20	**Tight and cotight modules.** *Duha sharha and Mohammad Saleh.* *Birzeit University, Palestine.*	**Monte Carlo implementation for simulation of Ostwald ripening in two-phase polycrystalline materials.** *Rifa El-Khozondar and Hala El-Khozondar.* *Al-Aqsa University, Palestine.*
16:20–16:40	**Afternoon break**	
Parallel Sessions	**Statistics** **Chair: Inad Nawajeh**	**Physics** **Chair: Abdurahman Abulebdah**
16:40–17:05 **Invited**	**Statistical paradoxes:Concepts and misconceptions.** *Hasan Hamdan Hanayshi.* *James Madison University, USA.*	**3-D micromachining of single crystal diamond using femtosecond direct laser writing.** *Othman Zalloum.* *Palestine Polytechnic University, Palestine.*
17:05–17:20	**Bayes estimation and prediction of biased sample selected from a finite population.** *Abdulhakeem Eideh.* *Al-Quds University, Palestine.*	**Nonlinear dynamic for semiconductor ring lasers.** *Lilia Mashal and J. Danckaert.* *Hebron University, Palestine.*
17:20–17:35	**An approximation of a longitudinal stochastic model.** *Khalid Salah.* *Al-Quds University, Palestine.*	**Dynamical and thermal properties of 850 nm VCSEL.** *Muayad Abusaa.* *Arab American University, Palestine.*
17:35–17:50	**Bayesian estimation of the scale parameter of the Marshall-Olkin exponential distribution under progressively Type-II censored Samples.** *Mukhtar Salah.* *Majmaah University, KSA.*	**Simulation study for optimum operation of the laser ion source and trap (LIST) used for on-line experiments.** *Zeid Qamhieh.* *An-Najah National University, Palestine.*
17:50–18:30	**Activities**	
18:30-20:00	**Dinner**	
20:00	**Transportation from THE ARAB AMERICAN UNIVERSITY to Haddad Hotel**	

Day 2 - Oral, Monday, August 1, 2016

08:00–08:30	**Transportation from Haddad Hotel to THE ARAB AMERICAN UNIVERSITY**	
08:30–08:50	**Reception and Registration**	
08:50–09:40 **Plenary** Chair: **Waleed Deeb**	**Optimizing Exit Times to Efficiently Cool a Heated Disk.** ***Charles R. Doering, University of Michigan, USA.***	
Parallel sessions	**Mathematics** **Chair: Iyad Abu Jeib**	**Physics** **Chair: Husain Alsamamra**
09:40-10:05 **Invited**	**On Devaney's definition of chaos.** *Mohammad Saleh.* *Birzeit University, Palestine.*	**O^+ and H^+ above the polar cap: Observations and semikinetic simulations.** *Imad Barghouthi.* *Al-Quds University, Palestine.*
10:05-10:30 **Invited**	**An alternative approach for deriving series solution for eigenvalue problems.** ***Fathi M. Allan.*** ***United Arab Emirates University, UAE.***	**Advanced plasmonic interfaces for enhanced light-trapping for photovoltaics.** *Zaki Saleh, H. Nasser, E. Özkol, A. Bek and R. Turan.* *Arab American University, Palestine.*

10:30-10:55 **Invited**	***Normal Constants of Cone Metric Spaces.*** ***Abdallah A. Hakawati and Muath J. Karaki.*** ***An-Najah National University, Palestine.***	**Transport properties of spin-orbit coupled Fermi systems.** *Ulrich Eckern, Cosimo Gorini, Roberto Raimondi, and Sebastian Tölle. University of Augsburg, Germany.*
10:55-11:10	**Estimates on the number of limit cycles of a generalized abel equation.** *Naeem Alkoumi. Birzeit University, Palestine.*	**Optical Properties of the GaS deposited onto Ytterbium substrates.** *Eman O. Nazzal, S. R. Alharbi and A. F. Qasrawi. Arab American University, Palestine.*
11:10-11:25	**Morning break**	

Parallel sessions	**Mathematics and Statistics Chair: Mohammad Saleh**	**Physics Chair: Mohammad Elsaid**
11:25-11:50 **Invited**	**Oscillation criteria for certain even order neutral delay differential equations.** *Ali Zein. Palestine Polytechnic University, Palestine.*	**Uncertainty relations for some central potentials in N-dimensional space.** *Sami AL-Jaber. An-Najah National University, Palestine.*
11:50-12:15 **Invited**	**Zeros and poles localization of polynomials and rational functions and total nonnegativity of structured matrices.** ***Mohammad Adm.*** ***University of Konstanz, Germany. (Skype)***	**The diffusion coefficient of vacancies and jump length of electrons in Mg Fe_{2-x} Cr_x O_4 Ferrites.** *Mohammad Abu-Samreh and M. EL-Saadawy. Arab American University, Palestine.*
12:15-12:30	**Statistical analysis of data adaptive methods in image de-noising.** *Hani Kabajah. Birzeit University, Palestine.*	**Spectroscopic and calorimetric investigations of the physical basis of anhydrobiosis in Caenorhabditis elegans.** *Sawsan Abusharkh. Al-Quds University, Palestine.*
12:30-12:45	**Polynomial decay for a viscoelastic Cauchy problem of fourth order with singular kernel.** *Mohammad Kafini. KFUPM, KSA.*	**Effect of sodium based transparent binders on the optical properties of GaSe thin films.** *Ahmad Omar. Arab American University, Palestine.*
12:45–13:00	**Efficient elliptic curve cryptosystems using efficient exponentiation.** *Kamal Darweesh. Palestine Technical University-Kadoorie, Palestine.*	**On the use of sunshine based models to estimate global solar radiation in Hebron city, Palestine.** *Husain Alsamamra. Al-Quds University, Palestine.*
13:00–13:15	**Effects of magnetic field on molybdenum disulphide nanofluid in mixed convection flow inside a porous channel with permeable walls.** *AAiza GUL. Universiti Teknologi Malaysia, Malaysia.*	**Entanglement properties of natural and artificial atoms.** *Anna Okopinska. Jan Kochanowski University, Poland.*
13:15–14:25	**Lunch Break**	

Parallel sessions	**Mathematics Chair: Safa Hamed**	**Physics Chair: Ahmed Omar**
14:25–14:50 **Invited**	**Estimation of Survival and Hazard functions of Restricted Quality Adjusted Lifetime.** *Mahmoud Al-Manasra. Arab American University, Palestine.*	**Search of magic numbers beyond the island of stability using covariant density functional theory.** *Hazem Abusara. Birzeit University, Palestine.*
14:50–15:15 **Invited**	**Existence theory for fractional differential equations.** *Mohammed Matar. Al-Azhar University, Palestine.*	**Eutectic mixture of myristyl alcohol - eicosane and the thermal reliability of this binary system as phase change material.** *Rabab Jarrar, Ghassan Qabaja and Reyad Sawafta. Palestine Technical University-Kadoorie, Palestine.*
15:15–15:30	**A Comparison study between students at three Palestinian universities using the multivariate multiple linear regression model.** *Jenan Kewan. An-Najah National University, Palestine.*	**On the design, implementation, and characterization of non-enzymatic glucose meter based on nanomaterials.** *Falah Awwad. United Arab Emirates University, UAE.*
15:30–15:45	**Numerical simulation of the time-dependent Maxwell's equations.** *Mai Mismar. Al-Quds Open University, Palestine.*	**Magnetization of coupled quantum dot in magnetic fields.** *Mohammad Elsaid, Eshtiaq Hjaz and Musa Elhasan, An-Najah National University, Palestine.*

15:45-16:00	**Power comparisons of chi-square Kolomogorve-Simronv Anderson-Darling and Bickel-Rosenblatt tests.** *Yousef Atatrah. Toulouse I university, France.(Skype)*	**Femtosecond light pulses production using the wiggler W164.** *H. Abualrob*, P. Brunelle, L. Chapuis, M.-E. Couprie, T. Elajjouri, M. Labat, O. Marcouille, J.-L. Marlats, F. Marteau, A. Mary, A. Nadji, K. Tavakoli, M.-A. Tordeux and M. Valleau. *An-Najah National University, Palestine.*
16:00-16:20	**Afternoon break**	

16:20-17:20	**Poster session(see next two pages)**	
Parallel sessions	**Mathematics Chair: Mohammed Jarrar**	**Physics Chair: Iyad Saadeddin**
17:20-17:45 **Invited**	**Optimal Control of a stochastic version of the Kermack-McKendrick model.** *Mario Lefebvre, Polytechnique Montreal, Canada.*	**Measurements of ^{222}Rn concentration levels in drinking water and the associated health effects in the Southern part of West Bank-Palestine.** *Khalil Thabayneh. Hebron University, Palestine.*
17:45-18:00	**Selection and purchase within a market of several life-insurance providers.** *Abdelrahim Mousa. Birzeit University, Palestine.*	**Compressive sensing theory for narrow-band interference mitigation in OFDM systems.** *Imad Barhumi. United Arab Emirates University, UAE.*
18:00-18:15	***Metrizability of Cone Metric Spaces via Renorming the Banach Spaces.*** *Abdallah A. Hakawati. An-Najah National University, Palestine.*	**Realization of GaN-based technology for sensors applications.** *Sulaiman Rabbaa. Arab American University, Palestine.*
18:15-18:30	**The Bivariate Shifted Legendre Functions for Nonlinear Volterra Integral Equation.** *Mahmoud Jaradat, Abdelhalim Ziqan. Arab American University, Palestine.*	**FP-LAPW study of structural, electronic and elastic properties of alkali hydrides compounds XH (X=Li, Na).** *Raed Jaradat, Mohammed Abu-Jafar and Issam Abdelraziq. An-Najah National University, Palestine.*
18:30-18:45	**Characterizing Islands in Area-Preserving Maps.** *Lubna Abu Rmaileh and Vered Rom Kedar.*	**Energy band diagram and characterization of the InSe/GaS heterojunction.** *Olfat A. Omareye, S.E. Alqarni and A. F. Qasrawi. Arab American University, Palestine.*
18:45–20:00	**Activities**	
20:00-22:00	**Dinner**	
22:00	**Transportation from THE ARAB AMERICAN UNIVERSITY to Haddad Hotel**	

Day 2 - Poster, Monday, August 1, 2016

Physics Poster Session (16:20-17:20)

Analysis of the current-voltage characteristics of the Yb/TlInSe$_2$/C interfaces. *Reham M. Kmeil*, M. Abu Saa, A. F. Qasrawi and N. M. Gasanly. *Arab American University, Palestine.*
Au/InSe interface designed as resonator for optical communications. *Alaa A. Ikmail*, M. Abusaa, Hazem K. Khanfar and A. F. Qasrawi. *Arab-American University, Palestine.*
Deposition and characterization of the organic ZnPc buffering substrates. *Tamara Y. Y. Abed*, M. M. Abu Samreh, Hazem K. Khanfar, A. F. Qasrawi. *Arab American University, Palestine.*
Dielectric dispersion in yttrium doped $Nd_2Sn_2O_7$. *Hanan Z. G. Hamamera*, Adli A. Saleh, Hazem K. Khanfar and A. F. Qasrawi. *Arab American University, Palestine.*
Dielectric dispersion modeling in Bi_2O_3 thin films. *Osama H. AboAlrub, Najla M. Khusayfan, Hazem K. Khanfar and A. F. Qasrawi. Arab American University, Palestine.*
Exploring Demarcation levels in Laser excited photodiode arrays. *Sufyan R. S. Shehada*, M. M. A. Abu Saa, Hazem K. Khanfar and A. F. Qasrawi. *Arab American University, Palestine.*
Growth and characterization of ZnS thin films. *Maisam M. A. Abdullah*, A. F. Qasrawi, Hazem K. Khanfar. *Arab American University, Palestine.*

Instant form theory and light-front theory Hamiltonian formulation of the conformally gauge-fixed Polyakov d1 brane action. *Fadwa Almasry.* *University College of Science and Technology, Palestine.*
Mechanical properties of terbium doped $Nd_2Sn_2O_7$. *Qotaibah A. A. Alkarem*, Adli A. Saleh, Hazem K. Khanfar, A. F. Qasrawi. *Arab American University, Palestine.*
Morphology and current- voltage characteristics of BN based MSM devices. *Yasmeen K. Ghannam*, Hazem K. Khanfar, Attieh A. Alghamdi, A. F. Qasrawi. *Arab American University, Palestine.*
Observation of correlated barrier hopping conduction mechanism in Al:ZnSe thin films. *Ansam M. Alsabe, A. F. Qasrawi, T.S. Kayed. Arab American University, Palestine.*
Optical interactions at the ZnSe nanolayers surface. *Maram F. Taleb, S. R. Alharbi and A. F. Qasrawi.* *Arab American University.*
Plasma Physics. *Soboh Alqeeq.* *Islamic University of Gaza, Palestine.*
Structural properties of high temperature annealed Cd:GaSe thin films. *Arwa N. T. Abu Ghannam and A. F. Qasrawi.* *Arab American University, Palestine.*
The retention of pentavalent pollutants on bentonite clay. *Zeid Qamhieh.* *An-Najah National University, Palestine.*
The effect of temperature on protein residue network properties. *Wael Karain.* *Birzeit University, Palestine.*

Mathematics Poster Session (16:20-17:20)

A numerical solution for nonlinear integral equation using Haar Wavelet method. *Abdalaziz Hamdan and Abdulhalim Ziqan.* *Arab American University, Palestine.*
Generalized closed sets and separation axioms via I^2c-open sets. *Ahmed EL-Mabhouh.* *Islamic University of Gaza, Palestine.*
Local fractional Fourier series method for solving local fractional Fredholm integral equation. *Hind Sweis, Abdelhalim Ziqan, and Iyad Suwan.* *Arab American University, Palestine.*
Nim Game. *Lama Radwan, Hiba Shokeh and Shorouq Zahran.* *Bethlehem University, Palestine.*
On phi classes of submodules. *Mohammed AL-Ashker.* *Islamic University of Gaza, Palestine.*
Portmanteau diagnostic test for seasonal time series. *Esam Mahdi.* *Islamic University of Gaza, Palestine.*
The optimum cut-off radius of Yukawa potential. Iyad Suwan, *Hayel Hussein*, Anan Hussein and Methqal Daraghmeh. *Arab American University, Palestine.*
المقارنة بين طريقة الانحدار الكلاسيكي والشبكات العصبية الاصطناعية للتنبؤ بنسبة الخلايا السرطانية عند مرضى سرطان الدم. ليندا قشوع ونصوح صوص. *جامعة فلسطين التقنية-خضوري، فلسطين.*

Day 3, Tuesday, August 2, 2016

08:00–08:30	**Transportation from Haddad Hotel to THE ARAB AMERICAN UNIVERSITY**	
08:30–08:50	**Reception and Registration**	
Parallel sessions	**Mathematics** **Chair: NureddinRabie**	**Physics** **Chair: Dr. Marwan Alquni**
08:50-09:15 **Invited**	**Functional circular relationship model assuming wrapped Cauchy errors.** *Ali Abuzaid.* *Al Azhar University, Palestine.*	**Graphene as a new dimension for carbon-based electronics.** ***Hussein Shanak.*** ***Palestine Technical University–Kadoorie, Palestine.***
09:15-09:30	**Analytic and Geometric Study of Quasiconformal Mappings with Application to Boundary Value Problems.** *Rawan Syaj.* *Palestine Polytechnic University, Palestine.*	**Broadband infrared tissue absorption using miniature infrared light source.** *Rushdi Kitaneh, M.I. Abu Taha, A. Thweib, R. Kitaneh, and M. Abu Issa.* *Al-Quds University, Palestine.*

09:30-09:45	**Three-dimensional Volterra integral equation via the reduced differential transform method.** *Sawsan Armiti, Abdelhalim Ziqan and Iyad Suwan.* *Arab American University, Palestine.*	**Controlling microarray DNA hybridization efficiency by probe-surface distance and external surface electrostatics.** *Khawla Qamhieh.* *Al-Quds University, Palestine.*
09:45-10:00	**The optimum maximum allowed displacement in Monte Carlo simulation of the Lennard-Jones potential point particles.** *Hayel Al Shraydeh, Iyad Suwan and Abdelrahman Abu Labdeh.* *Arab American University, Palestine.*	**The abundances of light and medium size clusters in low-density nuclear matter.** *Waad Awad.* *Birzeit University, Palestine.*
10:00-10:15	**Ideals and Boolean like Semiring: Some properties.** *Amani Aljamal and Nureddin Rabie.* *Palestine Polytechnic University, Palestine.*	
10:15-10:40	**Morning Break**	

Parallel sessions	**Mathematics** **Chair: Ayman Badawi**	**Physics** **Chair: Khawla Qamhieh**
10:40-11:05 **Invited**	**Lie-theoretic generating function relations of two variable Chebyshev polynomials.** *Marawan Elkhazendar.* *Al Azhar University, Palestine.*	**Sensitivity of graphene-MTM waveguide. Hala El-Khozondar**. *Islamic University of Gaza, Palestine.*
11:05-11:20	**Derivation and simulation of illuminated Mott's variable range hopping (VRH) parameters.** *Suha Jazzar, Abdelhalim Ziqan and Atef Qasrawi.* *Arab American University, Palestine.*	**Modification of CuSe thin film electrodes prepared by electrodeposition: Enhancement of photo electrochemical characteristics by controlling cooling rate and covering with polymer/metalloporphyrin.** ***Rola Sultan Al-Kerm, Ahed Zyoud and Hikmat S. Hilal.*** *An-Najah National University, Palestine.*
11:20-11:35	**Adaptive finite difference schemes for the wave equation.** Marwa Shehadeh. *Palestine Polytechnic University, Palestine.*	**PIXE-RBS Beamline in the University of Jordan Van de Graaff accelerator: Development and application . *Hanan Sa'adeh, Rami Ali and Dia-Eddin Arafah.*** *University of Jordan, Jordan.*
11:35-11:50	**Unified solution for the transport mechanism equations of electronic conduction.** *Abdulftah Hosni Mohamad, Abdelhalim Ziqan and Atef Qasrawi.* *Arab American University, Palestine.*	**Modifying PEC characteristics of CuS thin film electrodes prepared by electrodeposition: Effect of cooling rate and coverage with electroactive composite materials.** *Rana Sultan Al-Kerm, Ahed Zyoud and Hikmat S. Hilal.* *An-Najah National University -Physics Department, Palestine.*
11:50-12:05	**Rank-One Perturbations of Matrices.** *Arein Duaibes and Iyad Abu Jeib.* *Arab American University, Palestine.*	**Flipped classroom improves student learning physics.** *Hazem Sakeek.* *Al-Azhar University, Palestine.*
12:05-12:20	**Exact solutions of MHD unsteady Flow of a Second grade fluid in porous medium with heat Transfer. Nadeem Ahmad Sheikh**. *City University of Science and Information Technology Peshawar, Pakistan.*	
12:20-13:30	**Business meeting**	
13:30-15:00	**Lunch**	
15:00-16:00	**Closing ceremony and participation certificates**	
16:00	**Transportation from THE ARAB AMERICAN UNIVERSITY to Haddad**	