BASSALAT Ahmed

Date of Birth: September 24, 1985
Place of Birth: Nablus, Palestine
Address: Physics Department, An-Najah National University, Nablus, Palestine
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Email: ahmed.bassalat@cern.ch or ahmed.bassalat@najah.edu
Nationality: Palestinian
Sex: Male
Marital Status: Married

EDUCATION:

Jan 2012 – Dec 2015: PhD in physics: Construction of the IBL in the inner Detector of ATLAS and Invisible Higgs bosson analysis, *Laboratoire de l'Accélérateur Linéaire (LAL)*, Orsay, France. The PhD work had been carried out at CERN, Geneva

2010 -2011: Master NPAC Noyaux, Particules, Astroparticules et Cosmologie, *Institute de Physique Nucléaire d'Orsay (IPNO), Univrsité Paris Sud-XI,* Orsay, France

2009-2010: Master Nuclear Energy and Engineering, Option Neutronics, (One of the best three), IPNO & CEA Saclay, France

2008-2009: Master 1 Physique Fundamental, *Univrsité Paris Sud-XI*, Orsay, France

2003-2006: BSc in Physics with honor degree, Science College, An-Najah N. University, Nablus (The First)

2005 – 2007: Honor College, An-Najah N. University, Nablus, Palestine.

Memberships

- Active member in the National Committe for SESAME, since Sep 2016
- Active member in ATLAS Collaboration-CERN since April 2011

HONORS and Funds:

2018 – 2019: one years fund of (13 k USD) Project from Scientific research deanship at An-Najah National University, Nablus, Palestine
2017 - 2019: 2 years fund of (20 k Euro) Almaqdisi Project from French consulate , Jerusalem
2013 - 2015: 2 years Scholarship from ATLAS-IBL project, CERN, Geneva
2011 - 2014: 3 years Scholarship from University of Paris-Sud XI, Orasy, France
2008 - 2011: 3 years Scholarship from General French Consulate in Palestine and University of Paris-Sud XI, Orsay, France.

INTERNSHIPS AND SUMMER SCHOOLS:

12^{th} - 17^{th} Nov 2017: ***Chair*** *and CoFounder of Second Winter School in High Energy Physics in Palestine (WISHEPP-II), http://wishepp2017.lal.in2p3.fr/*

25^{th} April 2017: Workshop ***Organizer*** *of:* ***Awareness of SESAME,*** AnNajah N. University, Palestine Where potential SESAME users from different Palestinian Universities were present

13^{th} - 17^{th} Nov 2016: ***Chair*** *and CoFounder of First Winter School in High Energy Physics in Palestine (WISHEPP), https://wishepp.lal.in2p3.fr*

May 2016: *SESAME Visit: Organising a day-visit to SESAME for Undergraduate & graduate students at physics department at AnNajah N. University*

July 2014: The 5th workshop of the Higgs Hunting, Orsay, France (attendance)

June 2014: Tau Workshop for ATLAS, Orsay, France (Participation)

June 2013: The 2013 European School of High-Energy Physics, *Parádfürdő*, Hungary (Participation)

Septembre 2012: Ecole de Gif 2012, Physique au LHC, Orsay, France (attendance)

July-August 2011: Summer School at CERN Geneva, Switzerland (Participation)

April-July 2011: Pixel Sensor Development for IBL and ATLAS Detector in LHC Upgrade, *Laboratoire de l'Accélérateur Linéaire*, Orsay (Master thesis)

October 2010: The Electromagnetic Calorimeter for the International Large Detector of the ILC, LLR in *Ecole polytechnique*, palaiseau, France (project)

April-July 2010: Validation of CAST3M in some test cases in Computational fluid Dynamics, CEA- Saclay, France. (Master thesis)

May-July 2009: Study of Bose Einstein Condensation in *Laboratoire de Physique Theoriqu*, *Univrsité Paris Sud-XI*, Orsay, France (Master 1 thesis)

EMPLOYMENT HISTORY:

Jan 2014 – July 2015: *Attached* researcher with the HEP group, ICTP, Trieste, Italy

July 2007 - May 2008: Teaching Assistant, Physics Dep. at An-Najah National University

February 2007 – May 2007: Research Assistant, Physics Dep. An-Najah University, Nablus.

LANGUAGES:

Arabic, English and French

COMPUTER SKILLS:

- Operating systems: Linux & Windows
- Programming languages and programs: C++, ROOT,
- Editor: LATEX

POSTERS AND TALKS:

18^{het} – 19th Dec 2017: Identification of Water Pollutants using IR at SESAME, 15th SESAME Users Meeting, Amman, Jordan ***(My student Amal Atari work in collaboration with Gihan Kamel)***

13th May – 16th May 2017: Palestinian links with SESAME & CERN, ***SKF, Dead Sea, Jordan***

1st July – 2nd August 2016: The new Inner tracker (ITK) of ATLAS for the High Luminosity phase of LHC, ***FPICPAE***, Tulkarem

1st July – 2nd August 2016: ATLAS Inner detector upgrade experience, PCMTMP-V, Jenin

5-7 November 2015: Partager le Savoire, *ICTP, Trieste, Italy*

17-22 August 2015: Search for an Invisibly Decaying Higgs Boson Produced via Vector Boson Fusion with ATLAS, Lepton Photon 2015, Ljubljana, Slovenie.

31 May 2015: Efforts and actions with grand Academia Institution for more collaboration with palestinian universities, CICUP, Paris

4 April 2014 – 14 April 2014: Physics without Frontiers project: Giving seminars and lectures to Palestinian universities' students about studying high energy physics and joining International universities for graduate studies

1 - 7 December 2013: Overview of the Insertable B-Layer (IBL) Project of the ATLAS Experiment at the LHC, Journées de Rencontres des Jeunes Chercheurs, Relais du Moulin Neuf, Barbaste, Lot-et-Garonne, France

2 - 6 April 2013: Stave Rating and Quality Assurance of Pixel IBL- Staves, LHC France Annecy, France, April 2013

14 June 2013: Testing and Ranking the Pixel IBL- Staves, European School of High Energy Physics, Parádfürdő, Hungary, June 2013

23 - 27 September 2013: Quality Assurance and Functionality Tests on Electrical Components during the ATLAS IBL Production, Tropical Workshop on Electronics for Particle Physics, Perugia, Italy

07 - 11 October 2013: Quality Assurance and Functionality Tests on Electrical Components during the ATLAS IBL Production, Marrakech, Maroc

06 November 2013: Overview of the ATLAS Insertable B-Layer, *Rencontres des Jeunes Physiciennes*, Paris

31 march 2012– 5 April 2012: *Physics without Frontiers project:* Giving seminars and lectures to Palestinian universities' students about studying high energy physics and joining International universities for graduate studies

3 August 2010: Validation of CAST3M On Computational Fluid Dynamics Test cases, PCMTPM III (Palestinian Conference on Modern Trends in Mathematics and Physics), An-Najah National University, Nablus, Palestine,

PUBLICATIONS WITHIN ATLAS COLLABORATION:

<u>Beside my own research, wthin ATLAS Collaboration,</u> I have more than 300 published paper, (with number of citations more than 25000 citation) can be found in the most prestigious papers and journals in Europe and USA, as an example:

RECENT PUBLICATIONS WITHIN ATLAS COLLABORATION :
Most of them have been published in Journals with Impact factor > 5

- Evidence for light-by-light scattering in heavy-ion collisions with the ATLAS detector at the LHC, published in Nature Physics, Nature Physics 13 (2017) 852

https://www.nature.com/nphys/journal/v13/n9/full/nphys4208.html

- Study of the material of the ATLAS inner detector for Run 2 of the LHC, JINST 12 (2017) P12009

http://iopscience.iop.org/article/10.1088/1748-0221/12/12/P12009/meta

- Search for an invisibly decaying Higgs boson or dark matter candidates produced in association with a Z boson in pp collisions at s√= 13 TeV with the ATLAS detector, PLB 776 (2017) 318

https://www.sciencedirect.com/science/article/pii/S0370269317309413

- Evidence for the H→bb¯ decay with the ATLAS detector, JHEP 12 (2017) 024

https://link.springer.com/article/10.1007/JHEP12(2017)024

- Search for Dark Matter Produced in Association with a Higgs Boson Decaying to bb¯1 using 36 fb^{-1} of ppcollisions at s√=13 TeV with the ATLA S, Phys. Rev. Lett. 119 (2017) 181804

https://journals.aps.org/prl/abstract/10.1103/PhysRevLett.119.181804

- Measurement of the W+W− production cross section in pp collisions at a centre-of-mass energy of s√ = 13TeV with the ATLAS experiment, Phys. Lett. B 773 (2017) 354

https://www.sciencedirect.com/science/article/pii/S037026931730669X

- Search for the dimuon decay of the Higgs boson in pp collisions at s√ = 13 TeV with the ATLAS detector, Phys. Rev. Lett. 119 (2017) 051802

https://journals.aps.org/prl/abstract/10.1103/PhysRevLett.119.051802

- Measurements of the production cross section of a Z boson in association with jets in pp collisions at s√=13~TeV with the ATLAS detector, Eur. Phys. J. C77 (2017) 361

https://link.springer.com/article/10.1140/epjc/s10052-017-4900-z

- Search for dark matter in association with a Higgs boson decaying to b-quarks in pp collisions at √s = 13 TeV with the ATLAS detector

http://www.sciencedirect.com/science/article/pii/S0370269316306980

- Dark matter interpretations of ATLAS searches for the electroweak production of supersymmetric particles in √s = 8 TeV proton-proton collisions

https://link.springer.com/article/10.1007/JHEP09(2016)175

- Search for dark matter produced in association with a hadronically decaying vector boson in pp collisions at √s = 13 TeV with the ATLAS detector

http://www.sciencedirect.com/science/article/pii/S037026931630613X

- Study of hard double-parton scattering in four-jet events in pp collisions at √ s = 7 TeV with the ATLAS experiment

https://link.springer.com/article/10.1007/JHEP11(2016)110

- Measurement of W boson angular distributions in events with high transverse momentum jets at √ s = 8 TeV using the ATLAS detector

http://www.sciencedirect.com/science/article/pii/S0370269316307419

- Measurement of W + W − production in association with one jet in proton–proton collisions at √ s = 8 TeV with the ATLAS detector

http://www.sciencedirect.com/science/article/pii/S0370269316305858

- A measurement of material in the ATLAS tracker using secondary hadronic interactions in 7 TeV pp collisions

http://iopscience.iop.org/article/10.1088/1748-0221/11/11/P11020

- Measurements of the Higgs boson production and decay rates and constraints on its couplings from a combined ATLAS and CMS analysis of the LHC pp
collision data at √s = 7 and 8 TeV

https://link.springer.com/article/10.1007/JHEP08(2016)045

- Measurement of the W ± Z boson pair-production cross section in pp collisions at √ s = 13 TeV with the ATLAS detector
http://www.sciencedirect.com/science/article/pii/S0370269316304725

- Luminosity determination in pp collisions at √s = 8 TeV using the ATLAS detector at the LHC

https://link.springer.com/article/10.1140/epjc/s10052-016-4466-1

- Search for Higgs bosons decaying to aa in the μμττ final state in pp collisions at s√= 8 TeV with the ATLAS experiment ATLAS Collaboration (Georges Aad (Marseille, CPPM) et al.). May 7, 2015.

- Measurements of the Total and Differential Higgs Boson Production Cross Sections Combining the H→γγ and H→ZZ∗→4ℓ Decay Channels at s√=8 TeV with the ATLAS Detector ATLAS Collaboration (Georges Aad (Marseille, CPPM) et al.). Apr 21, 2015. 6 pp.

- Search for high-mass diphoton resonances in pp collisions at s√=8 TeV with the ATLAS detector ATLAS Collaboration Apr 21, 2015. 14 pp. CERN-PH-EP-2015-043

- Search for massive, long-lived particles using multitrack displaced vertices or displaced lepton pairs in pp collisions at s√ = 8 TeV with the ATLAS detector
ATLAS Collaboration Apr 20, 2015. 25 pp.

- Standalone vertex finding in the ATLAS muon spectrometer, [arXiv:1311.7070]

- Search for Quantum Black-Hole Production in High-Invariant-Mass Lepton+Jet Final States Using Proton-Proton Collisions at s√ = 8 TeV and the ATLAS Detector, arXiv:1311.2006

- Search for long-lived stopped R-hadrons decaying out-of-time with pp collisions using the ATLAS detector, [arXiv:1311.2006]

- Measurement of the mass difference between top and anti-top quarks in pp collisions at s√ = 7 TeV using the ATLAS detector, [arXiv:1310.6527]

- Search for charginos nearly mass-degenerate with the lightest neutralino based on a disappearing-track signature in pp collisions at s√ = 8 TeV with the ATLAS detector, [arXiv:1310.3675]

- Search for new phenomena in photon+jet events collected in proton--proton collisions at sqrt(s) = 8 TeV with the ATLAS detector, [arXiv:1309.3230]

- Search for microscopic black holes in a like-sign dimuon final state using large track multiplicity with the ATLAS detector , [arXiv:1308.4075]

- Search for excited electrons and muons in s√=8 TeV proton-proton collisions with the ATLAS detector , [arXiv:1308.1364]

- Measurement of top quark polarization in top-antitop events from proton-proton collisions at s√ = 7 TeV using the ATLAS detector, [arXiv:1307.6511]

- Evidence for the spin-0 nature of the Higgs boson using ATLAS data, [arXiv:1307.1432]

- Measurements of Higgs boson production and couplings in diboson final states with the ATLAS detector at the LHC, [arXiv:1307.1427]

** Quality Assurance and Functionality Tests on Electrical Components during ATLAS IBL Production, Ahmed Bassalat, JINST 8 (2013) C02048

INTERNATIONAL EXAMS:

1 August, 2007: *GRE Exam*, Amideast, Ramallah, The score of the quantitative section is 710/800.

REFERENCES:

Prof. Rolf Heuer, rolf.heuer@cern.ch, (EX DG of CERN, President of SESAME)
Dr. Maen Ishtaiwi, m.ishtaiwi@najah.edu, (Head of Physics Department at AnNajah N. University)
Prof. Achille Stocchi : stocchi@lal.in2p3.fr (Director of Laboratoire de l'Accélérateur Linéaire)
Prof. Patrick Fassnacht : patrick.fassnacht@ cern.ch (ATLAS, CERN International Relations)
Dr. Abdenour Lounis Lounis@lal.in2p3.fr The responsible of Master Nuclear Energy at Paris sud & CEA and PhD supervisor.