

# Dr. Yasir Ali

E-mail : yasir\_ali@comsats.edu.pk, yali@cern.ch, yasirali@hawaii.edu Phone : 0092 344 5106566 0092 51 9049 5313 Website: <u>https://www.comsats.edu.pk/,</u> <u>https://www.linkedin.com/in/yasir-</u> <u>ali-b054a4a5/</u> Address: Park Road Islamabad 44000 Pakistan

# Career Objective

To acquire a challenging position as a Physicist, where my educational and professional skills and abilities are successfully utilized for teaching, Research and other associated scientific purposes. Willing to be an important part of a well-reputed organization, so that I can impart my knowledge towards the benefit of the organization.

# **Career Summary**

Extremely skilled and highly talented Physicist, with an extensive and enhanced background Knowledge:

- 6 Years of Research Experience in Experimental High Energy Physics and associated data analyis and designing and Instrumentation for Read out Electronics.
- 6 years of teaching experience at Graduate and Undergraduate level in this particular field of Physics; capable of handling the laboratory procedures and associated teaching and Supervised Several Masters and PhD Students thesis.
- 6 Months of Experience as Post-Doctoral Research Fellowship from January 2019-June 2019 at the Department of Physics, University of Hawaii, Honolulu Hawaii USA.

# Education

### PhD

Jagieollonian University, Krakow Poland

PhD Project was based on the Feasibility studies for open charm measurements with NA61/SHINE experiment at CERN-SPS using new dedicated Vertex Detector.

### Masters by Research

University of Manchester, Manchester UK

Masters Project was based on the Surface Studies of Quantum dot based Photovoltaics

### Bachelors of Science (Electronics)

COMSATS University Islamabad

Project was based on the Design of Adhoc Wireless Network based on Transceivers.

# Work experience

February 2011 — March 2015

October 2008 — January 2010

September 2003 — September 2007

### COMSATS University Islamabad

Assistant Professor

- As an Assistant Professor I have experience of teaching electronics and physics courses to undergraduate and graduate students.
- In addition I have supervised several Bachelors and Masters Physics Student's thesis and also currently Supervising Masters and Co-Supervising PhD Students thesis.
- In addition to teaching My Research area is based on the Study of Quark Gluon Plasma using Hadron-Hadron, Hadron-Nucleus and Nucleus-Nucleus Collisions at LHC energies in Collaboration with ALICE Experiment and also independently. I am using ALIROOT Framework and Standalone Monte-Carlo simulation codes and data analysis frameworks like Root and Origin.

### University of Hawaii, Hawaii USA

Post-Doctoral Research Fellow

- I worked on the Development of Front End Electronics for ring-imaging detector in the Instrumentation Development Lab of University of Hawaii .
- Project was based on the circuit board design and firmware development for implementation of the Si-READ ASIC readout of a ring-imaging detector prototype in the context of eRD-14 project for a future electron-ion collider detector.

### COMSATS University Islamabad

Lecturer

• As a Lecturer I taught Courses of Microprocessors, Very Large Scale Integrated Circuits and Basic Electronics Courses to Undergraduate Students.

### COMSATS University Islamabad

Research Associate

- I Worked on the Synthesis and Characterization of Nano-materials like FeO and ZnO.
- I used Several Characterization Techniques like X-ray Diffraction, Vibration Sensing Mangetometer, Scanning Electron Microscope, Ball Milling Machine, Box and Tube Furnaces etc.
- The goal was the Nano-materials synthesis and Characterization for Medical and Industrial Applications.

# **Research Experience**

- Worked on the circuit board design and firmware for implementation of the Si-READ ASIC readout of a ringimaging detector prototype at Instrumentation Development Lab at University of Hawaii, Honolulu, Hawaii USA
- Worked on the simulations of the new Vertex Detector for the upgrade of NA61/SHINE experiment at SPS CERN, Geneva Switzerland.
- Worked on the Beam Position Detector for the Alignment between Target and Time Projection Chamber for NA61/SHINE experiment at at SPS CERN, Geneva Switzerland
- Worked as a Shift Leader at ALICE Control Room ALICE experiment at CERN Geneva Switzerland.
- Worked at CERN Geneva Switzerland/France as part of NA61/SHINE Collaboration during the beam times with main work on beam position detectors (December 2013 -March 2015).

### April 2015 — Present

January 2019 — June 2019

January 2010 — January 2011

September 2007 — December 2008

- Member of NA61/SHINE Collaboration from 2011-2015
- Worked at Gesellschaft für Schwerionenforschung (GSI) Darmstadt, Germany for the software development for front end electronics for CBM experiment (July 2011 -December 2011).
- Member of ALICE Collaboration (Experiment at Large Hadron Collider LHC) and at CERN Geneva Switzerland.
- Currently working with ALICE Collaboration on the signatures of Quark Gluon Plasma (QGP) and doing research on the study of QGP in proton-proton, Proton-nucleus and nucleus-nucleus collisions at LHC energies

# **Technical and Professional Skills**

- Good Expertise with ALTIUM, OrCAD, PSPICE, ROOT and Origin
- Good Experience of working with Linux (Debain and ubuntu distributions) and Windows Operating systems, Latex, C/C++, Basic VHDL/Verilog, Fortran, Basic Python, MS Office
- Good Hands on Experience on Monte-Carlo simulation codes HIJING, PYTHIA, CRMC simulation codes like EPOS, EPOS-LHC, QGSJET, SIBYLL, and DPMJET etc, UrQMD, AMPT and GEANT4

# **Research Area of Interest**

- Study of Quark Gluon Plasma at LHC energies.
- Detector development and Radiation detection.
- Study of hadron production in nucleus-nucleus, hadron-hadron and hadron-nucleus collisions at LHC energies
- Study of Quark Gluon Plasma in Heavy Ion Collision,
- Development of Front End Electronics for high energy/particle physics experiments.

### Awards and Recognitions

- Got fully funded Masters Scholarship from Nano-Science and Technology Project COMSATS University Islamabad, Islamabad Pakistan
- Got fully funded PhD Scholarship from Polish Science Foundation
- Member of NA61/SHINE Collaboration (CERN Geneva, Switzerland) from 2011-2015.
- Member of ALICE Collaboration (CERN Geneva, Switzerland) since June 2015.
- Invited as a Speaker at the Workshop on Monte-Carlo Simulations-Applications in Science and Technology, May 15-17, 2017, PINSTECH NILORE Islamabad, Pakistan.
- Invited as a Speaker at the Department of Physics, Faculty of Physical and Numerical Sciences, Abdul Wali Khan University Mardan, 29th November 2017.
- Invited as a Speaker at the Department of Physics, Gordon College, Rawalpindi, 10th May 2018.

# Supervision of Research Projects

### PhD Students research Projects:

1. Title of thesis: Study of the Inclusive Characteristics of Secondary Charged Particles Produced in the Hadron Nucleus Collisions at LHC Energies Status: Completed

2. Title of thesis: Study of Some Characteristics of Secondary Charged Particles Produced in Hadron- hadron and Nucleus-nucleus Collisions at LHC and RHIC Energies Status: in Progress

#### Masters Students research Projects:

1.Title of thesis: Study of the Jet Production at the LHC energies Status: Completed

2. Title of thesis: Study of the Charmed and Strange meson production in Pb-Pb collisions at the LHC energies Status: in Progress

3. Title of thesis: Study of D meson production in pp collisions at the LHC energies Status: in Progress

4. Title of thesis: Study of psi(2s) production in pp collisions at the LHC energies Status: in Progress

5.Title of thesis: Study of strange particle production in Pb-Pb and pp collisions at the LHC energies Status: in Progress

6.Title of thesis: Study of the transverse sphericity in Pb-Pb collisions at the LHC energies Status: in Progress

7.Title of thesis: Study of neutral mesons at the LHC energies Status: in Progress

8. Title of thesis: Transverse momentum studies of the Xenon-Xenon collisions at 5.44 TeV. Status: in Progress

# **Publications**

#### Journal Publications (Impact Factor only):

- Y. Ali\*, P. Staszel, et al. Feasibility Studies of Open Charm Measurements with the NA61/SHINE Experiment at CERN-SPS, Published in Acta Phys.Polon. B 44 (2013) no.10, 2019-2034, DOI: 10.5506/APhysPolB.44.2019.
- U. Tabassam, Y. Ali, et al. Transverse momentum distribution of primary charged particles in the p–Pb interactions using HIJING 1.0, (COMSATS, Islamabad). 2016. 8 pp. Published in Int.J.Mod.Phys. A 31 (2016) no.24, 1650136 DOI: 10.1142/S0217751X16501360
- Y. Ali\*, et al. Comparison study of the pT distributions of the charged particles in p–Pb interactions at LHC energies (COMSATS, Islamabad). 2017. 9 pp. Published in Mod.Phys.Lett. A 32 (2017) No.31, 1750167 DOI: 10.1142/S021773231750167X
- Y. Ali\*, et al. Transverse momentum distribution of primary charged particles in p–Pb interactions at forward pseudorapidity at LHC energies (COMSATS, Islamabad). 2017. 9 pp. Published in Int.J.Mod.Phys. E 26 (2017) No.04, 1750021 DOI: 10.1142/S0218301317500215
- M.Ajaz...Y.Ali\* et al. Comparison of hadron production models for π ± , k ± , protons and antiprotons production in proton-carbon interactions at 60 GeV/c, Published in Mod. Phys. Lett. A, Vol. 33, No. 6 (2018) 1850038 , DOI: 10.1142/S0217732318500384.
- U. Tabassam, Y. Ali\*, et al. Observation of universality for high pT distribution at LHC energies. Published in Int.J.Mod.Phys. E 27 (2018) No. 4, 1850036 DOI: 10.1142/S0218301318500362

- M.Ajaz, Y.Ali\* et al. Comparison of different hadron production models for the study of π ± , k ± ,protons and antiprotons production in proton-carbon interactions at 90 GeV/c Published in Mod. Phys. Lett. A,, Vol. 33, No. 14 (2018) 1850079 , DOI: 10.1142/S0217732318500797
- U. Tabassam, Y. Ali\*, et al. The Production of π ± , k ± , protons and antiprotons in p-Pb collisions at .√sNN = 5.02 TeV Published in Mod. Phys. Lett. A,, Vol. 33, No. 17 (2018) 1850094 , https://doi.org/10.1142/S0217732318500943
- S. Ullah, Y. Ali, etal. π ± , k ± , protons and antiprotons production in proton-carbon interactions at 31 GeV/c using hadron production models Published in Int.J.Mod.Phys. A Vol. 33 No.17, (2018) 1850108 https://doi.org/10.1142/S0217751X18501087
- S.Ahmad, M. Ajaz, Y. Ali, Measurement of indoor radon concentration in district Mardan, Khyber Pakhtunkhwa, Pakistan. Published in Nucl. Phys. At. Energy volume 19, issue 2, pages 190-195.(2018). https://doi.org/10.15407/jnpae2018.02.190
- S. Ullah, M. Ajaz, Y. Ali, Spectra of strange hadrons and their role in neutrinos flux Prediction. Published in EPL, 123 (2018) 31001. doi: 10.1209/0295-5075/123/31001.
- Q.Ali , Y.Ali\* et al. Study of transverse momentum distributions in p Pb interactions at 0.9 TeV and 5.02 TeV Published in Mod. Phys. Lett. A,, Vol. 33, No. 31 (2018) 1850179 , DOI: 10.1142/S0217732318501791
- Y. Ali, Q. Ali, M. Haseeb, M. Ajaz & U. Tabassam, Study of Pseudorapidity and Transverse-Momentum Distributions of Charged Particles in pp Interactions at √s = 13 TeV Using Hadron Production Models Int J Theor Phys (2019) DOI 10.1007/s10773-018-3985-y
- R. Khan, M. Ajaz & Y. Ali, Transverse Momentum Distributions of Pions, Kaons and Protons in p pInteractions at 2.76 TeV, Int J Theor Phys (2019), DOI 10.1007/s10773-019-04085-9
- M.Ajaz, I. Khan, Y. Ali et,al. Charged Particles p T Spectra and theCorrelation between pT and all Charged Particles at √S = 900 GeV, Int J Theor Phys (2019), DOI 10.1007/s10773-019-04096-6
- M. Ajaz, M. Tufail, and Y. Ali, Study of the Production of Strange Particles in Proton–Proton Collisions at √s = 0.9 TeV Arab J Sci Eng (2019). https://doi.org/10.1007/s13369-019-04224-8
- R.Khan, M.Ajaz, Y. Ali, H. Younis, et,al Model Predictions of Charged-Particle Azimuthal Distributions and Forward-Backward Correlations in pp Interactions at √s = 900 GeV Commun. Theor. Phys. 71 (2019) 1172–1178 Vol. 71, No. 10, October 1, (2019).
- Q. Ali , Y. Ali et al. Distribution of strange particles transverse momentum and rapidity in high energy proton–proton collisions at√s = 0.9 TeV at LHC Mod. Phys. Lett. A,, Vol. 33, No. 1 (2020) 2050006 (9 pages), DOI: 10.1142/S0217732320500066
- Q. Ali , Y. Ali ,et,al. Distributions of charged particles' transverse momentum and pseudorapidity in pp collisions at 0.9 TeV Pis'ma v ZhETF, vol. 109, iss. 8, pp. 507 508 DOI: 10.1134/S0370274X19080010
- Q. Ali , Y. Ali et,al. Distributions of the Transverse Momentum and Pseudorapidity of Charged Particles in pp Collisions at 0.9 TeV JETP Letters, 2019, Vol. 109, No. 8, pp. 495–498. (2019).
- M.Ajaz, R.Khan, Y. Ali , M. K. Suleymanov et,al. Testing of model predictions of forward energy flow in pp collisions at s = 7 TeV Mod. Phys. Lett. A, (2019) https://doi.org/10.1142/S0217732319503498
- M. Ajaz , Y. Ali , et,al. Study of Hadrons Produced in Proton–Carbon Interactions at 120 GeV/c Using Hadron-Production Models, Physics of Atomic Nuclei, 2019, Vol. 82, No. 3, pp. 291–298. (2019).
- M.Ajaz, M.Bilal, Y. Ali, S. Ullah et al ,Study of pion kaon and proton in proton carbon interactions at 158 GeV/c using hadron production models, Mod. Phys. Lett. A, Vol. 34, No. 10 (2019) 1950078 (10 pages), DOI: 10.1142/S0217732319500780
- Y. Ali , M. K. Suleymanov, et,al. Models prediction of hadrons production ratios in pp collisions at √s = 7 TeV, Mod. Phys. Lett A, Vol. 34, No. 13 (2019) 1950090 (13 pages), DOI: 10.1142/S0217732319500901

- M. Ajaz ,M. Tufail, and Y. Ali, Production of light flavored charged hadron in pp collisions at 900 GeV with hadron production models, Mod. Phys. Lett. A, Vol. 34, No. 13 (2019) 1950100 (7 pages), DOI: 10.1142/S0217732319501001
- Q. Ali, Y. Ali, et,al. Transverse momentum and nuclear modification factor distributions of charged particles in p + Pb and p + p collisions at sNN = 5.02 TeV, Mod. Phys. Lett. A,, Vol. 34, No. 16 (2019) 1950120 (9 pages), DOI: 10.1142/S0217732319501207
- S. Ullah, M.Ajaz, Z. Wazir, Y.Ali et al.Hadron production models' prediction for pT distribution of charged hadrons in pp interactions at 7TeV. Sci Rep9, 11811 (2019) doi:10.1038/s41598-019-48272-4
- M Ajaz, R Khan, M Bilal, Y Ali et al. Models prediction of particles ratio in pp collisions at √s = 900 GeV, Indian J Phys (May 2020) 94(5):719–724, https://doi.org/10.1007/s12648-019-01504-9
- Q. Ali, Y.Ali, et al. Distribution of strange particles transverse momentum and rapidity in high energy proton proton collisions at √s = 0.9 TeV at LHC, Modern Physics Letters A Vol. 35, No. 5 (2020) 2050006 DOI: 10.1142/S0217732320500066
- M. Ajaz, M. Tufail, and Y. Ali , Study of the Production of Strange Particles in Proton–Proton Collisions at √s = 0.9 TeV, Arabian Journal for Science and Engineering, 45,411–416( 2020) https://doi.org/10.1007/s13369-019-04224-8
- M. Ajaz, R. Khan , Y. Ali and M. Suleymanov, Testing of model predictions of forward energy flow in pp collisions at √s = 7 TeV, Modern Physics Letters A Vol. 35, No. 2 (2020) 1950349 DOI: 10.1142/S0217732319503498

### **Conference Publications**

- M. Rybczynski.. **Y. Ali**,.. et al. Energy dependence of identified hadron spectra and event-by-event fluctuations in p+p interactions from NA61/SHINE at the CERN SPS NA61/SHINE Collaboration Jan 2013. 8 pp. Published in PoS ConfinementX (2012) 207 Conference: C12-10-08.1 Proceedings e-Print: arXiv:1301.3360 [nucl-ex]
- Y. Ali, P. Staszel, Future Vertex Detector for Measurements of Open Charm with the NA61/SHINE Experiment at CERN-SPS, Published in Acta Phys.Polon.Supp. 6 (2013) no.4, 1081-1084. DOI: 10.5506/APhysPolBSupp.6.1081
- Y. Ali, P. Staszel, et al. NA61/SHINE experiment upgrade with vertex detector for open charm measurements NA61/SHINE Collaboration. Published in J.Phys.Conf.Ser. 509 (2014) 012083. DOI: 10.1088/1742-6596/509/1/012083
- **Y. Ali,** P. Staszel, Charm quarks as a probe of matter produced in relativistic nucleus-nucleus collisions, Published in EPJ Web Conf. 71 (2014) 00004 DOI: 10.1051/epjconf/20147100004
- M. Deveaux, A. Aduszkiewicz, Y. Ali, et al. The Small Acceptance Vertex Detector of NA61/SHINE Published in EPJ Web of Conferences 171, 21001 (2018) https://doi.org/10.1051/epjconf/201817121001
- Complete and updated List of Publications are available at: http://inspirehep.net/author/profile/Y.Ali.

# NA61/SHINE and ALICE Collaboration Publications

#### Publications - NA61/SHINE Collaboration:

- N. Abgrall., Y. Ali, et al.NA61/SHINE facility at the CERN SPS: beams and detector system NA61 Collaboration Jan 19, 2014. 55 pp. Published in JINST 9 (2014) P06005 CERN-PH-EP-2014-003 DOI: 10.1088/1748-0221/9/06/P06005 e-Print: arXiv:1401.4699 [physics.ins-det]
- N. Abgrall.. Y. Ali,.. et al. Measurement of negatively charged pion spectra in inelastic p+p interactions at plab = 20, 31, 40, 80 and 158 GeV/c NA61/SHINE Collaboration Oct 9, 2013. 22 pp. Published in Eur.Phys.J. C74 (2014) no.3, 2794 CERN-PH-EP-2013-182, DOI: 10.1140/epjc/s10052-014-2794-6 e-Print: arXiv:1310.2417 [hep-ex]

- N. Abgrall, Y.Ali.. et al.. Measurements of production properties of K0S mesons and lambda hyperons in protoncarbon interactions at 31 GeV/ c, NA61/SHINE Collaboration Sep 8, 2013. 12 pp Published in Phys.Rev. C89 (2014) no.2, 025205 CERN-PH-EP-2013-160, DOI: 10.1103/PhysRevC.89.025205, e-Print: arXiv:1309.1997 [physics.acc-ph]
- N. Abgrall, Y.Ali.. et al.. Measurements of ð ± differential yields from the surface of the T2K replica target for incoming 31 GeV/c protons with the NA61/SHINE spectrometer at the CERN SPS, NA61/SHINE Collaboration Mar 22, 2016. 23 pp. Published in Eur.Phys.J. C76 (2016) no.11, 617 CERN-EP-2016-057, DOI: 10.1140/epjc/s10052-016-4440-y e-Print: arXiv:1603.06774 [hep-ex]
- A. Aduszkiewicz .. Y. Ali,.. et al. Production of Λ -hyperons in inelastic p+p interactions at 158 GeV/c, NA61/SHINE Collaboration Oct 13, 2015. 19 pp. Published in Eur.Phys.J. C76 (2016) no.4, 198 CERN-PH-EP-2015-274, DOI: 10.1140/epjc/s10052-016-4003-2 e-Print: arXiv:1510.03720 [hep-ex]
- N. Abgrall.. Y. Ali,.. et al Measurements of ±, K ±, K 0 S Λ and proton production in proton–carbon interactions at 31 GeV/c with the NA61/SHINE spectrometer at the CERN SPS, NA61/SHINE Collaboration Oct 9, 2015. 76 pp. Published in Eur.Phys.J. C76 (2016) no.2, 84 CERN-PH-EP-2015-278 DOI: 10.1140/epjc/s10052-016-3898-y e-Print: arXiv:1510.02703 [hep-ex]
- A. Aduszkiewicz.. Y. Ali, .. et al. Multiplicity and transverse momentum fluctuations in inelastic proton–proton interactions at the CERN Super Proton Synchrotron NA61/SHINE Collaboration Oct 1, 2015. 17 pp. Published in Eur.Phys.J. C76 (2016) no.11, 635 CERN-PH-EP-2015-273, DOI: 10.1140/epjc/s10052-016-4450-9 e-Print: arXiv:1510.00163 [hep-ex]
- A. Aduszkiewicz,.. Y. Ali, .. et al. Measurement of meson resonance production in ð+/- C interactions at SPS energies NA61/SHINE Collaboration May 23, 2017. Published in Eur.Phys.J. C77 (2017) no.9, 626 CERN-EP-2017-105, FERMILAB-PUB-17-268-AD-ND DOI: 10.1140/epjc/s10052-017-5184-z e-Print: arXiv:1705.08206 [nucl-ex]
- A. Aduszkiewicz... Y. Ali, .. et al . Measurements of ±, K ±, p and p spectra in proton-proton interactions at 20, 31, 40, 80 and 158 GeV/c GeV/c with the NA61/SHINE spectrometer at the CERN-SPS NA61/SHINE Collaboration May 6, 2017. 54 pp. Published in Eur.Phys.J. C77 (2017) no.10, 671 CERN-EP-2017-066, FERMILAB-PUB-17-185-AD-ND DOI: 10.1140/epjc/s10052-017-5260-4 e-Print: arXiv:1705.02467 [nucl-ex]
- A. Aduszkiewicz... Y. Ali, .. et al . Two-particle correlations in azimuthal angle and pseudorapidity in inelastic p + p interactions at the CERN Super Proton Synchrotron NA61/SHINE Collaboration Oct 3, 2016. 14 pp. Published in Eur.Phys.J. C77 (2017) no.2, 59 CERN-EP-2016-234, FERMILAB-PUB-16-650 DOI: 10.1140/epjc/s10052-017-4599-x, e-Print: arXiv:1610.00482 [nucl-ex]

#### • Publication - ALICE Collaboration:

- J/ψ elliptic flow in Pb-Pb collisions at √sNN=5.02TeV ALICE Collaboration (Shreyasi Acharya (Calcutta, VECC) et al.). Sep 15, 2017. 13 pp. Published in Phys.Rev.Lett. 119 (2017) no.24, 242301 CERN-EP-2017-237 DOI: 10.1103/PhysRevLett.119.242301 e-Print: arXiv:1709.05260 [nucl-ex]
- Constraints on jet quenching in p-Pb collisions at √sNN = 5.02 TeV measured by the event-activity dependence of semi-inclusive hadron-jet distributions ALICE Collaboration (Shreyasi Acharya (Calcutta, VECC) et al.). Dec 15, 2017. 30 pp. CERN-EP-2017-324, e-Print: arXiv:1712.05603 [nucl-ex]
- First measurement of Ξ 0c production in pp collisions at √sNN = 7 TeV ALICE Collaboration (Shreyasi Acharya (Calcutta, VECC) et al.). Dec 12, 2017. 21 pp. CERN-EP-2017-332 e-Print: arXiv:1712.04242 [hep-ex]
- Measurement of Z0-boson production at large rapidities in Pb-Pb collisions at √sNN=5.02 TeV ALICE Collaboration (Shreyasi Acharya (Calcutta, VECC) et al.). Nov 29, 2017. 19 pp. CERN-EP-2017-305 e-Print: arXiv:1711.10753 [nucl-ex]
- Production of 4He and 4He<sup>-</sup> in Pb-Pb collisions at √sNN = 2.76 TeV at the LHC ALICE Collaboration (Shreyasi Acharya (Calcutta, VECC) et al.). Oct 20, 2017. 17 pp. CERN-EP-2017-266 e-Print: arXiv:1710.07531 [nucl-ex]

- Prompt and non-prompt J/ψ production and nuclear modification at mid-rapidity in p-Pb collisions at sNN=5.02 TeV ALICE Collaboration (Shreyasi Acharya (Calcutta, VECC) et al.). Feb 2, 2018. 24 pp. CERN-EP-2018-010, CERN-EP-2018-010 e-Print: arXiv:1802.00765 (Submitted to EPJC)
- Neutral pion and η meson production in p-Pb collisions at sNN =5.02 TeV ALICE Collaboration (Shreyasi Acharya (Calcutta, VECC) et al.). Jan 22, 2018. 34 pp. CERN-EP-2018-002, CERN-EP-2018-002 e-Print: arXiv:1801.07051 (Submitted to EPJC)
- Ac+ production in pp collisions at sNN=7 TeV and in p-Pb collisions at sNN=5.02 TeV ALICE Collaboration (Shreyasi Acharya (Calcutta, VECC) et al.). Dec 27, 2017. 40 pp. CERN-EP-2017-339 e-Print: arXiv:1712.0958 (Submitted to JHEP)
- Relative particle yield fluctuations in Pb-Pb collisions at sNN=2.76 TeV. ALICE Collaboration (Shreyasi Acharya (Calcutta, VECC) et al.). Dec 21, 2017. 19 pp. CERN-EP-2017-318 e-Print: arXiv:1712.07929 (Submitted to EPJC) 5.2 Conference Publications
- Complete and updated List of Publications are available at: http://inspirehep.net/author/profile/Y.Ali.

### **Technical Reports**

- Status report to the proposal SPSC-P-330 Report from the NA61/SHINE experiment at the CERN-SPS. CERN-SPSC-2013-028 / SPSC-SR-124.
- Status report to the proposal SPSC-P-330 Report from the NA61/SHINE experiment at the CERN-SPS. CERN-SPSC-2014-031 / SPSC-SR-145.
- Status report to the proposal SPSC-P-330 Report from the NA61/SHINE experiment at the CERN-SPS. CERN-SPSC-2015-036 / SPSC-SR-171.
- Addendum to the the NA61/SHINE Proposal SPSC-P-330 Beam momentum scan with Pb+Pb collisions by NA61/SHINE at the CERN-SPS. CERN-SPSC-2015-038 / SPSC-P-330-ADD-8

### Workshops and Conference Participations

- International workshop on heavy quark production in heavy ion collisions 14-17 November 2012 Academic Building, Utrecht University Netherlands.
- Symposium on applied nuclear physics and innovative technologies, 03-06 June 2013, Jagiellonian University, Krakow Poland.
- Strangeness in Quark Matter 21-27 July 2013, The University of Birmingham, United Kingdom.
- International Conference on New Frontiers in Physics, From 28 August 2013 to 5 September 2013 (Europe/Athens) Kolymbari, Crete, Greece.
- Symposium on applied nuclear physics and innovative technologies. September 24th to 27th,2014, Jagiellonian University, Kraków Poland.
- International Workshop on "Thin Films based Photovoltaics": on 16th of September 2009 at National Physical laboratories London, UK.
- Workshop on Monte-Carlo Simulations-Applications in Science and Technology, May 15-17, 2017, PINSTECH NILORE Islamabad, Pakistan

# Courses Taught at COMSATS University Islamabad

a) Digital Logic Design,

- b) Microprocessors and Micro-controller Based systems
- c) Very Lager Scale Integrated Circuits
- d) Applied Physics for Engineers
- e) Electricity and Magnetism
- f) Boundary Value Problems
- g) High Energy Physics I
- h) High Energy Physics II
- i) Applied Quantum Mechanics
- j) Particle Physics I
- k) Graduate Lab Projects
- I) Experiments in Mechanics
- m) Electric and Magnetic Fields
- n) Heavy Ion Collision

### References

#### Professor Gary S. Varner, Ph.D.

Professor of Physics and Astronomy Cooperating Professor of Electrical Engineering Executive Director, Instrumentation Development Lab. High Energy Physics Group University of Hawaii Watanabe Hall, Room 333 2505 Correa Road Honolulu, HI 96822 ID Lab: http://www.phys.hawaii.edu/~idlab Email: varner@phys.hawaii.edu

#### Professor Dr. Roman Planeta

Director Institute of Physics, Jagieollonian University Krakow Poland Email: roman.planeta@uj.edu.pl

#### Professor Dr. Marek Gazdzicki

Goethe-Universität Frankfurt am Main Fachbereich Physik Institut für Kernphysik Max-von-Laue-Straße 1 60438 Frankfurt am Main GERMANY E-Mail: Marek.Gazdzicki ikf.uni-frankfurt.de and Marek.Gazdzicki@cern.ch

#### Dr hab. Pawel Staszel

Institute of Physics, Jagieollonian University Krakow Poland Email: ufstasze@if.uj.edu.pl

#### Professor Dr. Arshad Saleem Bhatti

Dean faculty of Science COMSATS University Islamabad, Park Road,44000 Islamabad Email: asbhatti@comsats.edu.pk

#### Dr Sudeep Chatterji

Detector Scientist, Diamond Light Source, United Kingdom Email: surdeep.chatterji@diamond.ac.uk