Curriculum Vitae

Personal:

Name	Dr. Muhammad Ayub Faridi
Father's Name	Akbar Ali Shah
N.I.C NO.	35202-5167593-1
Domicile	Pakpattan
Religion	Islam
Nationality	Pakistani
Marital status	Married
Sex	Male
E-mail	ayubfaridi@yahoo.com, ayubfaridi.chep@pu.edu.pk
Permanent Address	Chishti House I/S Rehmoon Gate, Pakpattan
Postal Address	Center for High Energy Physics, Punjab University, Lahore.
Res. Phone No.	04573-72357
Office Phone No	042-9231137-120
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Designation	Assistant Professor Center for High Energy Physics, Punjab University, Lahore.

Higher Qualifications

Degree	Grades	Department/ Centre, University	Year of Completion
M.Sc. (Applied Mathematics)	86% A Grade	Mathematics Department, University of the Punjab, Lahore.	1982
M.Phil (High Energy Physics)	86% 1st Position	Centre for High Energy Physics, University of the Punjab, Lahore.	2002
Ph.D (High Energy Physics)	Foreign Evaluation	Centre for High Energy Physics, University of the Punjab, Lahore.	2011

Thesis of M. Phil. Foliation of Spacetime

Thesis of Ph. D. Foliation and Isometric Embeddings of Schwarzschild Spacetime

Computer Literacy

1. Programming in FORTRAN
2. Programming in Mathematica
3. MS Word, Scientific Work Place
4. Familiar with Mapple and its application
5. LaTeX 2e

Publications

1. **Faridi et al. "How fast is the growth of total cross section at high energies?"** Published in the Proceedings at 28th International Cosmic Ray Conference (Japan 2003).
2. **Faridi et al.** "**Total Cross Section at Cosmic Ray Energies**" , 29th International Cosmic Ray Conference Pune (2005) 00, 101-103
3. **Faridi et al. "A Complete Foliation of Schwarzschild Spacetime on Free Falling Hypersyrfaces"** Published in **Chin. Phys. Lett. Volume 23,** Issue 12, December 2006
4. **Faridi et al. The Roll of Free Falling Hypersurfaces** Modern Trends In Physics Research (MTPR – 06) April 5-11, 2006 Cairo-Luxor, Egypt AIP 2007

5. Faridi et al. Optimal welding parameters with 10 keV point source electron gun Vacuum Volume 85, Issue 6, 11 January 2011, Pages 654–656
6. Faridi et al. Optimization of Electrostatic Focusing for Line Source Electron Beam Emitter Assembly Physics Procedia Volume 32, 2012, Pages 891–895

Conferences Attended and Presented (National and International)

1. National Symposium on Relativity (19-20Nov.1999) at QAU (Islamabad).
2. Workshop on Particle Physics (19-25 Nov.2000) at QAU (Islamabad).
3. National Symposium on Frontier in Physics (27-29Nov 2000) at Govt. College Lahore.
4. 27th International Nathiagali Summer College on Physics & Contemporary needs (24 June to 6th July 2002).
5. National Symposium on Frontier in Physics (28-30 January 2003) at Govt. College Lahore
6. Conference held by Pakistan Institute of Physics (PIP) at Lahore (21- 23 October 2003).
7. 3rd Workshop on Particle Physics (March 8 to 13, 2004), held by National Centre for Physics (Quaid-i-Azam University), Islamabad.
8. World Conference on 21st Century Mathematics 2004, (March 18-20) Lahore Pakistan.
9. Modern Trends In Physics Research (MTPR – 04) April 4-9, 2004 Cairo-Aswan, Egypt
10. International Conference on High Energy Physics (IHEP-04) from 16-22 August Beijing China.
11. National Symposium on Frontier in Physics (January 2005) at Govt. College Lahore
12. International Meeting on Frontiers in Physics (IMFP 2005) Malaysia
13. Modern Trends In Physics Research (MTPR – 06) April 5-11, 2006 Cairo-Luxor, Egypt
14. Seminar on Vacuum Science and Technology(SVSR-04) NINVAST June 03 2009 Islamabad

15. Conference on General Relativity & Gravitation Feb 11-13 2010 Department of Mathematics University of the Punjab Lahore Pakistan
16. Modern Trends In Physics Research (MTPR – 010) Dec 12-16, 2010 , Egypt
17. International Scientific Spring (**ISS**), National Center for Physics Islamabad Pakistan March 2-5, 2011.
18. Conference on Gravitation in Honour of Dr. Asghar Qadir Department of Mathematics, University of the Punjab Lahore-54590 December 17, 2011
19. Seminar on Vacuum Science and Technology(SVSR-04) NINVAST, 8th March 2012 Islamabad
20. International Scientific Spring (**ISS**), National Center for Physis Islamabad Pakistan March 5-9, 2012.

Teaching and Administration Experiences:

1. 20 years teaching experience in Govt. Colleges as lecturer and assistant professor.

Lecturer	From 02-12-1982 To 27-12-1994
Assistant Professor	From 27-12-1994 To 27-4-2004

   Two years experience as Principal Govt. Degree College Pakpattan (from 1995-1996)

2. Two years teaching experience (A Level Mathematics) as a visiting teacher at Sharif Educational Complex, Raiwind Lahore
3. Research experience and teaching experience in the field of Particle and Theoretical Physics. (2001-todate)
4. Currently teaching Group Theoretical Methods in Physics Paper III Term 1st, Gauge Field Theories Paper VII and Computational Methods in Particle Physics Paper VIII Term 2nd M.Phil. High Energy

Projects in 2012 Dr. M. Ayub Faridi		
Name	**Roll No.**	**Research Topic**
Faiz Wali	0710M. Phil.	Medical Imaging Registration of PET and CT Data.
Saman Anjum	2908 BM	Absolute dose measurement of Co-60 Machine using Dosimetry protocol in water-phantom.
Sara Anjum	3108 BM	Calculation of Shielding of 6 MV single energy Linear accelerator.
Mamona Mumtaz	3408 BM	Measurement of air Kerma strength of HDR Ir-192 source using well type ionization chamber.
Anum Rauf	0208 BE	Measurement of Flatness and Symmetry & penumbra for 6MV & 15MV Photon on Linear accelerator in water phantom with well type ionization chamber.
Anum Lashari	0508 BE	Measurement of X-ray contamination in high energy electron beams using water phantom.
Abida Rafique	2608 BE	Absolute dose measurement of 6 and 15 MV photon using TRS-398 Dosimetry protocol in water-phantom.
Sadia Amin	2908 BE	Comparison of 6 and 15 MV Photon PDDs with standard BJR data.
Arifa Hussain	3108 BE	Comparison of treatment plan with fast photon and convolution algorithm using phantom.
Sonia Amin	1508 BE	Statistical analysis of daily quality control data of Linear Accelerator.
Rabia Aslam	1708 BE	Absolute dose measurement of high energy electrons using TRS-398 Dosimetry protocol in water-phantom
Zulaikha Ali	2910 ME	Measurement of scatter contamination in 9 MeV electron beam with Lead and silver sheets in path of beam using silicon diode detectors.
Shafaq Zahid	1608 BM	Applicator Peripheral dose measurement for high energy electrons using silicon diode detectors.

Supvervision of M.Phil Students

Sr.No.	Name of Student	Thesis Title	Session	Remakrs
1	Waseem Ahmad Qureshi	Foliation of space time by K-Surfaces	2002-2004	Completed
2	Uzma Zafar	Quark Model as an approximation to QCD	2003-2005	Completed
3	Muhammad Anjum Javed	Quantization of Schwarzschild spacetime	2003-2005	Completed
4	Wasif Tanveer	Some foliations near essential singularities in penrose diagram	2006-2008	Completed
5	Abdul Qayyum Khan	Measurement of Wedge Factor and Tray Factor of Radiation Theraphy Machines	2007-2009	Completed
6	Ali Ahmad Khan	Quantization on K-surfaces in Schwarzschild Spacetime	2007-2009	Completed
7	Ghalib ul Islam	The Numerical Analysis of Electron Beam Line Source Assembly by using 'EGUM'	2007-2009	Completed
8	Muhammad Ahmad	Effective potential approach to the motion of test particles in curved space time	2009-2011	Completed
9	Muhammad Aslam	Study of Vtb CKM Matrix element in high energy e+ e- collisions	2010-2012	In progress
10	Ishrat Asghar	Determination Magnitudes and Phases of CKM Matrix element using recent date	2010-2012	In progress
11	Faiz Wali	Medical Imaging Registration of PET and CT Data	2010-2012	In progress
12	Saima Parveen	Application of GATE for Simulation of Dosimetery	2010-2012	In progress

1. M.Sc. Supervised 18 students of M. Sc.
2. B.Sc.Hons. Supervised 16 students of B. Sc Hons.

Training

1. Refresher course in Applied Math (Aug. 1988)
2. Teacher Training course (June 2002).
3. Faculty Development Program training

Courses Taught

1. Group Theoretical Methods in Particle Physics
2. Gauge Field theory
4. General Relativity
5. Advance Calculus
6. Linear Algebra
7. Numerical Analysis
8. Quantum Mechanics
9. Applied Differential Equation

Extra Curricular Activities

1. Badminton

1. INTER-COLLIGIATE CHAMPIONSHIP, MULTAN (1975-76) — RUNNERUP
2. INTER-DEPARTMENTAL CHAMPIONSHIP, UNIVERSITY OF THE PUNJAB, LAHORE — WINNER (1981-1982)

2. Table Tennis

INTER-COLLIGIATE CHAMPIONSHIP, MULTAN (1975-76) — RUNNERUP

Memberships

1. Pakistan Institute of Physics
2. Pakistan Vacuum Society
3. Officers Club Pakpattan
4. SEARCH Pakistan
5. The Planetary Society, University of California at Berkeley USA