

CURRICULUM VITAE

PERSONAL DATA

Name:	Muhammad Ali
Father's Name:	Badr ud Din
Date of Birth:	April 01, 1954
Place of Birth	Sahiwal (Pakistan)
Nationality	Pakistani
Qualification:	Ph.D. (Theoretical High Energy Physics)
Field of Interest:	Theoretical Physics and Astrophysics
Present Position:	Professor and Chairman Department of Space Science, University of the Punjab, Lahore-54590, Pakistan.
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EDUCATIONAL RECORD

<u>Degree</u>	<u>University</u>	<u>Year / Session</u>	<u>Field / Subjects</u>
Ph.D.	Punjab University	1987	Theoretical High* Energy Physics
M.Sc.	Punjab University	1975	Physics with specialization in Theoretical Physics
B.Sc.	Punjab University	1973	Physics, Mathematics A & B Courses, English

* The title of the Ph. D. thesis is “Analysis of Hypercharge Exchange Reactions”

EMPLOYMENT RECORD

<u>November 2001 to Present</u>	Professor and Chairman Department of Space Science, University of the Punjab, Lahore-54590 Pakistan.
<u>May 2001 to November 2001</u>	Associate Professor and Chairman Department of Space Science, University of the Punjab, Lahore-54590 Pakistan.
<u>August 1991 to May 2001</u>	Associate Professor Department of Space Science, University of the Punjab, Lahore-54590 Pakistan.
<u>May 1989 to August 1991</u>	Assistant Professor Centre for High Energy Physics, University of the Punjab, Lahore-54590 Pakistan.
<u>November 1988 to May 1989</u>	Assistant Professor of Physics Institute of Chemical Engg. & Technology University of the Punjab, Lahore-54590 Pakistan.
<u>May 1979 to November 1988</u>	Lecturer in Engineering Physics Institute of Chemical Engg. & Technology University of the Punjab, Lahore-54590 Pakistan.
<u>June 1977 to May 1979</u>	Research Officer, Pakistan Science Foundation (PSF) Funded Research Project Department of Physics, University of the Punjab, Lahore-54590, Pakistan.

RESEARCH CONTRIBUTIONS

Research Papers:

1. M. Saleem, M. Ali and S. Ali
“New Basis for the Standard Model for Electroweak Interactions,” Hadronic Journal (USA), **29**, 545 (2006).
2. Shaukat Ali and Muhammad Ali
“Present Status of Photoproduction of Vector Mesons” Journal of Scientific Research (Pakistan) **XXXV**, 25 (2006).
3. Muhammad Ali
“A New Model for Solar Neutrino Puzzle”, Journal of Scientific Research (Pakistan) **XXXIV**, 9 (2005).
4. Shaukat Ali and Muhammad Ali
“Regge Theory for High Energy Proton - Deuteron Elastic Scattering”, Journal of Research (Pakistan) **16**, 51 (2005).
5. Muhammad Ali and Shaukat Ali
“High Energy Alpha-Alpha Scattering”, Journal of Research (Pakistan) **15**, 199 (2004).
6. Mohammad Saleem, Muhammad Ali, Shaukat Ali and Atif Shahbaz
“Antiproton-Proton Elastic Scattering at Very High Energies”, Hadronic Journal **25**, 273 (2002).
7. Muhammad Ali
“A New Model for Solar Neutrino Puzzle”, Journal of Scientific Research **30**, 1 (2001).
8. Amjad S. Almas, C. A. Rahim, Muhammad Ali, M. Khalid, Rizwan Shahid and Kashif Rehan
“Estimation of Vegetation, Salinity and Water Logging in Faisalabad (Pakistan) Using SPOT Satellite Data”, Acta Scientia **7**, 69 (1997).

9. Fazal-e-Aleem, Haris Rashid and Muhammad Ali
 “Conductivity Measurements of Si:B in a Magnetic Field: Empirical Aspects”, J. Nat. Sc. & Math. Govt. College Lahore **36**, 105 (1996).
10. Muhammad Ali, Fazal-e-Aleem and Haris Rashid
 “Do Astrophysical Measurements Suggest Massive Neutrinos?”, Science International **8**, 207 (1996).
11. Fazal-e-Aleem, Haris Rashid and Muhammad Ali
 “High T_C Superconductor $YBa_2Cu_{3-x}Mn_xO_y$: Theoretical Analysis”, J. Nat. Sc. & Math. Govt. College Lahore **36**, 121 (1996).
12. Haris Rashid, Fazal-e-Aleem and Muhammad Ali
 “Temperature Dependence of Critical Resolved Shear Stress for Cubic Metals”, Science International **8**, 213 (1996)
13. Fazal-e-Aleem, Haris Rashid Shaukat Ali and Muhammad Ali
 “Theoretical Aspects of Superconductivity in M_xSi_{1-x} with $M = Au$ and Nb ”, Science International **7**, 337 (1995).
14. Fazal-e-Aleem, Muhammad Ali and Haris Rashid,
 “Spontaneous Symmetry Breaking and Structural Energy Difference in High T_C Superconductor $YBa_2Cu_3O_7$ ”, Science International **7**, 461 (1995).
15. Fazal-e-Aleem, Haris Rashid and Muhammad Ali
 “Theoretical Study of High T_C Superconductor $GdBa_2(Cu_{1-x}Zn_x)_3O_{7-\delta}$ ”, Science International **7**, 453 (1995).
16. Muhammad Ali, Fazal-e-Aleem, Haris Rashid and Mohammad Saleem
 “Dilepton Production by Hadrons”, Hadronic Journal Supplement **8**, 193 (1993)
17. Fazal-e-Aleem, Muhammad Ali and Haris Rashid
 “Recent Data for $\bar{p}p$ at Tevatron and Odderon Description”, Hadronic Journal **14**, 181 (1991).
18. Mohammad Saleem, Muhammad Ali and Haris Rashid
 “Spin Asymmetry in Inclusive Pion Production”, Hadronic Journal **14**, 291 (1991).

19. Mohammad Saleem and Muhammad Ali
 “Analysis of Hypercharge Exchange Reactions”, Hadronic Journal Supplement **1**, 744 (1986).
20. Mohammad Saleem and Muhammad Ali
 “Analysis of Some Hypercharge Exchange Reactions of the Type $0^- + \frac{1}{2}^+ \rightarrow 2^+ + \frac{1}{2}^+$ at 4 GeV/c”, Communications in Theoretical Physics **3**, 257 (1984).
21. Muhammad Ali
 “Study of the reaction $\bar{p}p \rightarrow \bar{\Lambda}\Sigma^0$ ”, Hadronic Journal **6**, 197 (1983).
22. Mohammad Saleem and Muhammad Ali
 “Study of the reaction $\pi^- p \rightarrow K^0 \Lambda^0$ ”, Hadronic Journal **6**, 1058 (1983).
23. Mohammad Saleem and Muhammad Ali
 “Study of the reaction $\bar{p}p \rightarrow \bar{\Lambda}\Lambda$ ”, Lett. Nuovo Cimento **32**, 425 (1981).
24. M. Kamran, M. Saleem and M. Ali
 “An analysis of the reactions $\pi^+ p \rightarrow K^+ \Sigma^+$ and $K^- p \rightarrow \pi^- \Sigma^+$ ”, Acta Physica Polonica **B12**, 221 (1981).
25. Mohammad Saleem, Muhammad Ali and Haris Rashid
 “Simple Regge pole model for hypercharge exchange reactions”, Hadronic Journal **3**, 1048 (1980).

Conference Proceedings etc.:

1. Shaukat Ali and Muhammad Ali
“Recent Results on Photoproduction of Vector Mesons and Mass Dependent Pomeron Trajectory”, Proceedings of XII Physics in Collision Conference , Stanford, California, USA, June 20-22, 2002.
2. Mohammad Saleem, Muhammad Ali and Faisal Akram
“Standard Solar Model and Electron-Neutrino Oscillations”, 27th International Cosmic Ray Conference (ICRC), Hamburg, Germany, 07-15 August, 2001.
3. Muhammad Ali and Muhammad Saleem
“Will the Absence of Oscillations in SNO Future Results Eliminate the Standard Solar Model?”, International Conference on “PHYSICS AT EXTREME ENERGIES”, Hanoi, Vietnam, July 19-25, 2000.
4. Mohammad Saleem, Muhammad Ali and Haris Rashid
“Weak Refractive Index and Solar Neutrino Puzzle”, 7th Conference on the Interactions of Particle and Nuclear Physics (CIPANP), Quebec, Canada, 22-28 May, 2000.
5. Muhammad Ali, M.A. Shaukat, M. Amjad and Javed Sami
“Satellite Remote Sensing for Environment and Resource Management”, 33rd Space Congress, Florida (USA), 6, 23 (1996).
6. S.H. Tirmazi, Mohammad Saleem, M.A. Shaukat, Fazal-e-Aleem and Muhammad Ali
“High Energy Neutron-Deuteron Elastic Scattering”, Physics Symposium, Dacca (Bangladesh), January, 1979.
7. Fazal-e-Aleem, Muhammad Ali and M. Saleem
“Van der Waals Type Model for $\gamma p \rightarrow \pi^- \Delta^{++}$ Scattering at High Energies”, 16th International Cosmic Ray Conference, Kyoto (Japan) 7, 417 (1979).
9. Mohammad Saleem, Fazal-e-Aleem, Muhammad Ali, M. Rafique and M. A. Shaukat
“O(3,1) Symmetry Model and Proton Compton Scattering for Large Momentum

Transfers”, International Meeting on Frontiers of Physics (Singapore), August, 1978.