**CURRICULUM VITAE**



# **(I) Personal Details**

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# Name: **Waqas Masood**

Date of Birth July 11, 1974

Professional Experience 24 years

Research Experience 24 years research experience in theoretical Plasma Physics

Designation Professor, COMSATS, Islamabad.

# Marital Status Married

Languages English, Urdu, Punjabi

Contact No. 0336-5134250

Email waqasmas@gmail.com

Institutional Address COMSATS University Islamabad, Park Road, Chak Shahzad, Islamabad 44000, Pakistan.

Present PostTenured Professor in Physics

Highest Degree ObtainedPhD (Space Plasma Physics)

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I did my PhD from Queen Mary & West College, University of London in 2006. The title of my thesis was “***Electrons and waves in space plasmas”***. I served in Pakistan Atomic energy Commission for 14 years before joining CUI Islamabad campus in March 2013. I have **164** published papers in international journals to date. Impact factor of the published/accepted papers is **384** according to google scholar is **2563**. I have so far supervised/co-supervised **10 PhD**, **12 MS**, **12 BS** students and co-supervised an **M. Sc** student from PIEAS. One student is currently registered with me in COMSATS University Islamabad.

I have research collaborations with people at Imperial College London, University of Maryland, USA, Institut für Theoretische Physik IV, Fakultät für Physik und Astronomie, Ruhr-Universität Bochum, Bochum, German Institute of Physics, Tbilisi, Georgia, National Center for Physics, University of Strathclyde, Scotland, Princess Nourah bint Abdulrahman University, Saudi Arabia, Port Said University, Egypt, Al-Baha University, Saudi Arabia, Quaid-e-Azam University Islamabad, Government College University (GCU) Lahore and Forman Christian College University (FCCU) Lahore.

**(II) Services in CUI, Islamabad**

I have rendered the following services ever since I joined CIIT Islamabad:

* Head of the department (HoD)
* Member of the MS and PhD departmental interviewing committee
* Member of the departmental advisory committee (DAC)
* Member of the departmental Tenure Track Committee (DTRC)
* Member of Curriculum revision committee for BS, MS and PhD program.
* Member of Qarz-e-Hasna committee, Department of Physics, Islamabad.
* Member of graduate lab examination team
* Seminar secretary

**PhD Students Supervised/Co-Supervised**

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| --- | --- | --- | --- | --- |
| S. No | Name | Registration # | Title of research | Status |
| 1. | Haseeb Hasnain  (Supervisor) | 07-7-1-015-2004 | Propagation of Nonlinear Coherent structures in Planetary Environments | Complete |
| 2. | ShakirUllah  (Supervisor) | CIIT/SP16-RPH-008/ISB | Envelope Soliton Solutions of Nonlinear Schrodinger Equation (NLSE) and their Interactions in Plasmas | Complete |
| 3. | Gul-e-Ali  (Co-Supervisor) |  | Nonlinear Structures in Nonuniform Magnetoplasma with non-Maxwellian Distribution | Complete |
| 4. | Muhammad Usman Malik  (Co-Supervisor) |  | Study of High Frequency Kinetic Modes in Non-thermal Magnetoplasma | Complete |
| 5. | Usman Hassan  (Co-Supervisor) |  | Interaction of nonlinear structures in relativistically degenerate plasma | Complete |
| 6. | Muhammad Altaf-Ur-Rehman |  | Inetraction of Nonlinear Dispersive and Dissipative Structures in dense Plasmas | Complete |
| 7. | Muhammad Javaid Iqbal |  | Nonlinear Wave Propagation in Quantum Degenerate Plasmas | Complete |
| 8. | Muhammad Shohaib |  | Multi-Soliton solutions of Modified Kadomtsev- Petviashvili Equation in Plasma Environments | Complete |
| 9. | Muhammad Yousaf Khattak |  | Multi-Soliton solutions of Zakharov- Kuznetsov Equation in Classical and Quantum Magnetoplasmas | Complete |
| 10. | Sunia Hassan |  | Study of Ion Temperature Gradient driven nonlinear structures in non-Maxwellian Plasmas | Complete |

**M. Phil Students Supervised in COMSATS University Islamabad**

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| S. No | Name | Registration # | Title of research | Status |
| 1. | Sara Jabeen | CIIT/FA13-RPH-027/ISB |  | Complete |
| 2. | Muhammad Shohaib | CIIT/FA14-RPH-024/ISB | Modified Solitary Wave Equations in One and Two  Dimensions and their Solutions | Complete |
| 3. | Anam Faryal | CIIT/SP15-RPH-003/ISB | Nonlinear Gardner equation in Plasmas | Complete |
| 4. | Naira Hamid | CIIT/FA16-RPH-017/ISB | Numerical Solutions of One Dimensional Nonlinear Partial Differential Equations in Nonplanar Geometries using Finite Difference Method | Complete |
| 5. | Muhammad Naveed Ahmad | CIIT/ SP17-RPH-046/ISB | Zabolotskaya-Khokhlov Equation in Multi-component Dissipative plasmas | Complete |
| 6. | Kanza Arif | CIIT/ SP17-RPH-023/ISB | Multi Soliton Solutions of Modified Korteweg de Vries (mKdV) Equation | Complete |
| 7. | Huma Nawaz | CIIT/ SP18-RPH-005/ISB | Investigation of nonlinear structures resulting from Gardner’s equation in multi-species plasmas | Complete |
| 8. | Muhammad Tanzeel Rizwan Hashmi | CIIT/ SP19-RPH-068/ISB | Head on Collision Between Two Solitons Using Poincare-Lighthill-Kuo (PLK) Method | Complete |
| 9. | Raja Mohsin Hameed | CIIT/ SP19-RPH-052/ISB | Multi-Soliton Solutions of NLS using Darboux Transformation | Complete |
| 10. | Muhammad Irfan Ali | CIIT/ SP19-RPH-038/ISB | Solitonic, periodic, Quasiperiodic and Chaotic Structures of Nonlinear waves in Plasmas | Complete |
| 11. | Syed Aafeen Bin Ghayas | CIIT/ SP21-RPH-047/ISB | Hirota Bilinear Formalism of Bilinear Backlund Transformations to Solve KdV and KP Equations | Complete |
| 12. | Farwa Shafqat | CIIT/ SP19-RPH-013/ISB | Interaction of Solitons in Plasmas Driven by Cubic Nonlinearity | Complete |
| 13. | Sabeela Shah | CIIT/FA21-RPH-034/ISB | Investigation of Nonlinear Partial Differential Equations Arising in Plasmas using the Wronskian Method | Complete |

**BS Students under Supervision in COMSATS University Islamabad**

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| S. No | Name | Registration # | Title of research | Status |
| 1. | Sara Zahoor | CIIT/FA10-BPH-002/ISB | Non-linear Integrable Partial Differential Equations in Space Plasmas | Complete |
| 2. | Iffat Ilyas | CIIT/FA12-BPH-014/ISB | Solitons and Shocks in a Plasma with Trapped particles | Complete |
| 3. | Naira Hamid | CIIT/FA12-BPH-005/ISB | Solitons and Shocks in a Plasma with Trapped particles | Complete |
| 4. | Kanza Arif | CIIT/SP13-BPH-012/ISB | An introduction to nonlinear Schrodinger equation | Complete |
| 5. | Khadija Khalid Ansari | CIIT/SP13-BPH-013/ISB | An introduction to nonlinear Schrodinger equation | Complete |
| 6. | Muhammad Bilal | CIIT/SP14-BPH-029/ISB | Drift Vortex Modes in Non-Uniform Multi-Component Plasmas | Complete |
| 7. | Abdul Moiz Mehmood | CIIT/SP14-BPH-032/ISB | Nonlinear PDE’s in Non-Planar Geometries | Complete |
| 8. | Abdullah Mahad Raza | CIIT/SP14-BPH-003/ISB | Introduction to the Solar wind | Complete |
| 9. | Muhammad Bilal  And Aqeel Hussain | CIIT/SP14-BPH-010/ISB  CIIT/SP14-BPH-013/ISB | Introduction to Nonlinear Dynamical Systems | Complete |
| 10. | Nida Barkat | CIIT/FA14-BPH-031/ISB | Modified Korteweg de Vries (MKdV) Equation in dispersive and dissipative plasmas | Complete |
| 11. | Shan Tariq | CIIT/SP18-BPH-040/ISB | Solutions of Non-Linear PDEs using Backlund Transformation |  |
| 12. | Qurat-ul-Ain | CIIT/SP19-BPH-090/ISB | Solutions of Non-Linear PDEs using Darboux Transformation |  |

**(III) Services in other Institutions**

I served in Pakistan Atomic Energy Commission (PAEC) for fourteen years. After the completion of my PhD in 2006, I taught Plasma Physics and Classical Mechanics at the MS level and supervised two PhD (Haseeb Hasnain and M. Altaf-ur-Rahman), two MS (Asif Shah and Tayyab Javed) and co-supervised an M.SC Nuclear Engineering Student from PIEAS. I served as a group leader in Theoretical Plasma Physics division at PINSTECH before joining CIIT in 2013.

I have been working as an Associate member at the National Center for Physics (NCP), Islamabad for the last five years or so and there are currently four PhD students, namely, Muzammal I Shaukat, Rabia Jahangir, Sunia Hassan and Muhammad Usman whom I am working with as co-supervisor. I have active research collaboration with Theoretical physics group at NCP. Moreover, I have played a very active role in organizing national as well as international conferences on Plasma Physics.

I am currently involved in research collaboration with the plasma group in the department of physics at Government College University (GCU) Lahore. I am currently the co-supervisor of two PhD students in the Physics department. I am also serving as a member in their board of studies.

**(IV) Services to the Community**

* I frequently serve as a reviewer for Physics of plasmas, Physics Letters A, Astrophysics & Space Science, Physica Scripta, Canadian Journal of Physics, Chinese Physics B, Brazilian Journal of physics and Space Science Reviews.
* Have taken M. Phil and PhD vivas at GCU Lahore, MUST Azad Kashmir and Abdul Wali Khan university Mardan.
* Reviewed research project under National Program for Universities (NRPU) offered by HEC Pakistan.

**(V) General work for students**

Mentioned above that I am member of Qarz-e-Hasna Committee.

**(VI) Schools, Workshops, Symposia Organized/Served as member of the Technical Committee/Participated as Faculty Member/Cordinator**

* Coordinator of Plasma Physics in 7th ISS meeting held at NCP from March 16th-20th, 2015.
* Coordinator of Plasma Physics in 8th ISS meeting held at NCP from March 7th-11th, 2016.
* Member of the Technical Committee of the 2nd workshop on Plasma Physics from May 2 - 4, 2016.
* Member of the Technical Committee of the 3rd workshop on Plasma Physics from May 2 - 4, 2017.
* Participating faculty member First Refresher Course for Physics Teachers - 2nd Module, 2017.
* Member of the Technical Committee of the 4th workshop on Plasma Physics from May 22 - 26, 2019.
* Member of the Technical Committee of the 5th workshop on Plasma Physics from May 30 -June 03, 2022.
* Coordinator of Plasma Physics in ISPAD-2021 meeting to be held at NCP from March 09th-11th, 2021.
* Coordinator of Plasma Physics in ISPAD-2023 meeting to be held at NCP from March 13th-17th, 2023.

**(VII) Professional Contribution**

* Taught courses at BS and MS level.
* Supervised and co-supervised PhD, MS and BS students as mentioned in points (III) and (IV).
* Reviewed MS and PhD thesis and many manuscripts as mentioned earlier in point (IV).

**(VIII) Supervision of Research work**

Already mentioned above in points (II) and (III).

**(IX) Research projects approved**

Awarded the HEC project No.20-3021/NRPU/R&D/HEC/14 titled “Nonlinear Coherent Structure Formation in Astrophysical and Space Plasmas” worth 10 million rupees. Status (Completed).

**(X) Awards and Distinctions**

* Merit Scholarship Scheme awarded by **Higher Education Commission Islamabad,**

**Pakistan**, to pursue PhD (September 2002 to 2006).

* Awarded the best essayist on the topic “Standard of Education in the Punjab University”

by the University of Punjab (1996).

* Selected amongst the top five debaters of the University of Punjab (1996).
* Awarded the **Salam Prize for Physics** by the Italian government 2009.

Awarded the **Presidential award for the pride of performance** 2011.

* Have been awarded “**A**” category by Pakistan Council for Science and Technology twice.
* Research productivity award for the year 2013 by COMSATS Institute of Information Technology, Pakistan.
* Research productivity award for the year 2014 by COMSATS Institute of Information Technology, Pakistan.
* Selected as one of the top referees by Physics of Plasmas in 2017.
* Recently selected as **ICTP Research Associate** (2018-2023).
* Currently holding the position of Vice President of Pakistan Physical Society.

**(XI) Academic Background/Professional Training/Post Doc**

1. **Academic background**
2. PhD in Space plasma physics from Astronomy Unit, Department of Mathematical Sciences, Queen Mary & Westfield College, University of London, 2006.
3. M.Sc. in Physics (with a thesis on chaos), University of the Punjab, Lahore, Pakistan, 1994 -1996- *First Class.*
4. B.Sc. in Physics and Mathematics, GC University, Lahore, Pakistan, 1991-1993- *First Class.*
5. Intermediate Examination Government Islamia College Civilines, Lahore, Board of Intermediate & Secondary Education, Lahore, Pakistan, 1989-1991- *First Class.*
6. Secondary School Examination, Board of Intermediate & Secondary Education, Lahore, Pakistan, 1987-1989*- First Class.*
7. **Professional Training**

**NA**

1. **PostDocs**

**NA**

**(XII) Professional Experience**

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| **Positions held** | **Institute** | **Division** | **From-To** | **Responsibilities** |
| 1.Scientific Officer  (presently called Junior Scientist) | PINSTECH | NPD | 06-10-1999  to  31-11-2001 | Research and publications in the field of plasma physics |
| 2. Senior Scientist | PINSTECH | PRD and TPPD | 01-12-2001  to  30-11-2009 | Research and publications in the  field of plasma physics |
| 3. Principal Scientist | PINSTECH | TPPD | 01-12-2009  to 28-02-2013 | Research and publications in the  field of plasma physics |
| 4. Associate Professor | COMSATS University Islamabad | Department of Physics | 01-03-2013  to  to 19-04-2018 | Teaching and Research in the  field of plasma physics |
| 5. Professor | COMSATS University Islamabad | Department of Physics | 20-04-2018 to date | Teaching and Research in the  field of plasma physics |
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**(XIII) Courses Taught**

1. **MS/PHD (Graduate Students)**

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| **Sr. No** | **Course Name** | **Semester** | **Credit Hours** |
| 1. | Mathematical and Computational Methods in Physics (PHY-503) | Fall, 2013 | 03 |
| 2. | Plasma Physics (PHY-540) | Spring 2015 | 03 |
| 3. | Nonlinear Plasma Theory (PHY-722) | Spring 2016 | 03 |
| 4. | Plasma Physics (PHY-540) | Fall 2016 | 03 |
| 5 | Mathematical and Computational Methods in Physics (PHY-503) | Fall 2016 | 03 |
| 6. | Nonlinear Plasma Theory (PHY-722) | Fall 2017 | 03 |
| 7. | Advanced Plasma Theory (PHY-668) | Spring 2018 | 03 |
| 8. | Plasma Physics (PHY-540) | Fall 2018 | 03 |
| 9. | Mathematical and Computational Methods in Physics (PHY-503) | Spring 2019 | 03 |
| 10. | Plasma Physics (PHY-540) | Fall 2019 | 03 |
| 11. | Mathematical and Computational Methods in Physics (PHY-503) | Fall 2020 | 03 |
| 12. | Plasma Physics (PHY-540) | Spring 2021 | 03 |
| 13. | Mathematical and Computational Methods in Physics (PHY-503) | Fall 2021 | 03 |
| 14. | Plasma Physics (PHY-540) | Spring 2022 | 03 |
| 15. | Nonlinear Plasma Theory (PHY-722) | Fall 2023 | 03 |

1. **BS (Undergraduate Students)**

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| **Sr. No** | **Course Name** | **Semester** | **Credit Hours** |
| 1. | Classical Mechanics (PHY-241) | Spring, 2014 | 03 |
| 2. | Mathematical Methods of Physics (PHY-361) | Fall, 2014 | 03 |
| 3. | Mathematical Methods of Physics (PHY-361) | Spring, 2015 | 03 |
| 4. | Boundary value Problems (PHY-271) | Fall, 2015 | 03 |
| 5. | Mathematical Methods of Physics (PHY-264) | Spring 2020 | 03 |
| 6. | Mathematical Methods of Physics (PHY-264) | Fall 2022 | 03 |
| 7. | Mathematical Methods of Physics (PHY-264) | Spring 2023 | 03 |
| 8. | Boundary value Problems (PHY-271) | Fall 2023 | 03 |

**XIV) Invited/Contributed Talks delivered on the National level**

1. Gave a talk on “Exotic structures in external force driven chaotic dusty plasmas” in 2nd Conference on “RECENT TRENDS IN PLASMA PHYSICS” 28th-30th November 2023 held at FCCU, Lahore.
2. Gave a talk on “Interaction Solutions of KdV Equation in Dense Magnetoplasmas” in Revamped Scientific Outlook of 21st Century, (RSO-21st Century) November 15, 2023, in Rawalpindi Women University, Rawalpindi.
3. Gave a talk on “Bäcklund transformation for analyzing a cylindrical Korteweg–de Vries equation and investigating multiple soliton solutions in a plasma” in Joint NUST-NCP International College on Space and Astrophysical Plasmas, being held from Oct. 30-Nov. 3, 2023 in NUST, Islamabad.
4. Gave a talk on “Rational Solutions of KdV Equation in Dense Magnetoplasmas” in Dynamics Days Central Asia and Caucasus, 21st Century Silk Road for Science and Peace, October 1-4, 2023, Bukhara, Uzbekistan.
5. Gave a talk on “Novel Features of Chaos in Dusty Plasmas” in the workshop in Turin Polytechnic University in Tashkent on 6th October 2023.
6. Gave a talk on “Cubic nonlinearity driven acoustic solitary structures in two-electron temperature plasmas” in ISPAD on 16th March 2023.
7. Gave a talk at NUST on “Adiabatic electron capture in Non-Maxwellian Plasmas” on 27th February 2023.
8. Gave a talk in Rawalpindi College for Women on “Solar System Through The Eyes OF A Plasma Physicist” on 11th January 2023.
9. Gave a talk in 1st National Conference on Emerging Horizons in Science & Technology (Physics Colloquium) held in UCP on 27th December 2022 on “A Journey through the Solar System”.
10. Gave a talk in the 17th Symposium on Frontiers in Physics held from 1st-3rd December 2022 on “Interaction of ion-acoustic solitons for multi-dimensional Zakharov Kuznetsov equation in space plasmas”.
11. Gave a talk in LUMS on 04th November 2022 on “Quasi-one-dimensional solitary structures with cubic nonlinearity and their applications in space plasmas”.
12. Gave a talk in NUST on 28th February 2022 on “Electrostatic Solitary Structures Beyond the KdV Limit and Their Applications in Space Plasmas”.
13. Gave a talk in LUMS on 10th September 2021 on “Exotic features of fourth state of matter in the high entropy region of the terrestrial magnetosphere”.
14. Gave a talk on International Webinar on Matter and Energy in Current Era (MECE 21) on 15-02-2021 on “Trapping in non-Maxwellian Plasmas”.
15. Gave a talk in ISPAD on 10th March 2021 on “Interaction of electrostatic solitons in relativistically degenerate quantum magnetoplasmas”.
16. Gave a talk in NUST on 16th December 2019 on “A Journey Through the Solar System”.
17. Gave a talk in the International Seminar on Physics, Lahore College for Women University, Lahore on 17th April 2018 on “A Panoramic View of Space Plasmas”.
18. Gave a talk in FCU in the 2nd International Physics Convention held from November 20-21, 2017, on “An introduction to Space Plasmas”.
19. Gave a series of lectures on mathematical Physics in First Refresher Course for Physics Teachers- 2nd Module held from 1st-19th August 2017 as an invited participating faculty.
20. Gave a series of lectures on Mathematical Physics in First Refresher Course for Physics Teachers- 1st Module held from 1st-20th August 2016 as an invited participating faculty.
21. Gave an invited talk in the 14th symposium on Frontiers in Physics held from 23rd-25th November 2016 on “Nonlinear coupling of electromagnetic and electrostatic fluctuations with 1-D trapping using product bi (r,q) distribution”.
22. Gave an invited talk at NUST on “Exact solution of Johnson's equation and formation and interaction of two solitons in pair-ion-electron plasma” on 11th April 2016.
23. 8th International Scientific Spring from 07th -11th March 2016 and gave a talk on “Exact solution of cylindrical KP equation and formation and interaction of two solitons in pair-ion-electron plasma”.
24. Gave a talk “A Panoramic view of space Plasmas” in a two-day workshop on plasma physics from May 4-5, 2015.
25. Gave a talk on “Lion Roars in the Terrestrial magnetosheath” in the one-day colloquium at COMSATS Lahore on March 25, 2015.
26. 7th International Scientific Spring from 16th -20th March 2015 and gave a talk on “Kinetic Alfven waves in space plasmas with nonthermal electrons”.
27. 6th International Scientific Spring from 10th -14th March 2014 and gave a talk on “Two-dimensional shock structures in dense plasmas”.
28. Attended the first NCP-ICTP International College on Plasma Physics from 11th -15th November 2013.
29. 5th International Scientific Spring from 5th -9th March 2013 and gave a talk on “Two-dimensional solitary structures in the presence of shear flow in Jovian environments”.
30. International Workshop on “Plasma Science” scheduled held from November 19 to 21, 2012 at COMSTECH, Islamabad and gave a talk on “Lion roars in the terrestrial magnetosheath”.
31. “13th National Symposium on Frontiers in Physics” from 19th-21st December 2012 and gave a talk on “Rotation induced drift dispersive waves could be the progenitors of the spokes in the Saturn’s B rings”.
32. 4th International Scientific Spring from 5th -9th March 2012 and gave a talk on “Kinetic Alfven waves in space plasmas with trapped electrons”.
33. “12th National Symposium on Frontiers in Physics” from 2nd- 4th February 2011 and gave a talk on “A Panoramic view of Space Plasmas”.
34. “International Scientific Spring Conference 2011” from 1st-5th March and gave a talk on “Rotation induced drift dispersive waves could be the progenitors of the spokes in the Saturn’s B rings”.
35. “International Scientific Spring Conference 2010” from 1st-6th March and gave a talk on “Revisiting coupled Shukla-Varma and Convective Cell mode in classical and quantum plasmas”.
36. “1st National Conference on Radiation, Particles, and Matter” from 22nd-24th December and gave a talk on “Nonplanar electrostatic shocks and solitons in electron-positron-ion plasmas”.
37. “11th National Symposium on Frontiers in Physics” from 29th-31st January 2009 and gave a talk on “Magnetoacoustic waves in dissipative electron-positron-ion plasmas”.
38. “Plasma Physics Conference” from Non 28th-29th 2009 and presented a talk on “Ion acoustic waves in dissipative electron-positron-ion plasmas”.
39. “33rd International Nathiagali Summer College on Plasma Physics from 25th June-07th July (2008)”, held under the auspices of Pakistan Atomic Energy Commission and National Centre for Physics, Quaid-i-Azam University, Islamabad, Pakistan.
40. 32nd International Nathiagali Summer College on Plasma Physics from 25th June-07th July (2007)” held under the auspices of Pakistan Atomic Energy Commission and National Centre for Physics, Quaid-i-Azam University, Islamabad, Pakistan.
41. “12th Regional Conference on Mathematical Physics”, from 27 March– 1st April (2007) held at Quaid-i-Azam University Islamabad, Pakistan.
42. “9th Symposium on Frontiers in Physics” was attended from 28– 30 Jan. (2003) held at Government College Lahore, Pakistan.
43. “27th International Nathiagali Summer College on Physics and Contemporary Needs” was attended from 4 – 6 July (2002) held at Nathiagali, Pakistan.
44. “8th Symposium on Frontiers in Physics” was attended from 20– 22 Nov. (2000) held at Government College Lahore, Pakistan.

**XV) Participation in International Activities**

* Gave a talk on “Electron velocity distribution and lion roars in the magnetosheath” at the MIST meeting held under the auspices of Royal Astronomical Society, London, in October 2005.
* Attended the Summer School on Plasma Physics in ICTP, Trieste, from 10th -28th August, 2009 and presented a poster on “Whistler waves in the terrestrial magnetosheath”.
* Gave a poster presentation on “Rotation induced drift waves in planetary magnetospheres with nonthermal distribution of electrons” at American Geophysical Union, Fall Meeting 2013.
* Gave a poster presentation on “Interpretation of Lion Roars observed in magnetosheath modeled by generalized (r,q) distribution function” at American Geophysical Union, Fall Meeting 2013.
* Gave a talk on “Whistler waves with electron temperature anisotropy and   
  non-Maxwellian distribution functions” at American Geophysical Union, Fall Meeting 2017.
* Gave a webinar in ICTP on “Two-Dimensional Electrostatic Solitary Structures with Cubic Nonlinearity and Their Applications in Space Plasmas” on 20th May 2022.
* Gave a talk on “Interaction of ion-acoustic solitons for multi-dimensional Zakharov-Kuznetsov equation in Van Allen radiation belts” in Dynamics Days Central Asia and Caucasus, Baku, Azerbaijan from 26th-30th September 2022.
* Gave a talk on “Interaction of electrostatic solitons in relativistically degenerate quantum magnetoplasmas” in 6th Asia-Pacific Conference on Plasma Physics, 9th-14th October, 2022.

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**References**

1. Prof. Peter. H. Yoon (University of Maryland, USA).
2. Prof. Bengt Eliasson (University of Strathclyde, Glasgow, Scotland).
3. Prof. H. A. Shah (VC, GC University, Lahore, Pakistan).
4. Prof. Arshad. M. Mirza, (Chairman, Physics Department, Quaid-e-Azam University, Islamabad, Pakistan).