

Curriculum Vitae: June_2025

Dr. Muhammad Jamil
S/O Mansab Ali Awan



Tenured Associate Professor in Physics
Department of Physics
COMSATS University Islamabad, Lahore Campus
Cell No: 0333-4742002
Email: jamil.gcu@gmail.com, drmjamil@cuilahore.edu.pk

Terminal Qualification: Ph.D.

PhD Supervision:

1-Mr. Arroj Ahmad Khan:

“Study of potentials in dense plasmas” **Completed Nov 2019**

2-Areeb Fatima:

“Collective interactions in dense plasmas” **Completed Dec 2019**

3- Zahid Mir:

“Study of Nonlinear Interactions in Dense Plasmas” **Completed Aug 2021**

4- Ayesha Rehman:

“The study and analysis of collective interactions in low beta dense Plasmas” **Completed Sept 2022**

5- Muhammad Siddique (Supervisor 2):

“Study of collective modes in quantum plasmas” **Completed Jan 2020**

MS (M. Phil) Supervision:

1- Zahid Mir:

“Study of Jeans Stability in Quantum Dusty Magneto Plasmas” **Completed June 2014**

2- Muhammad Siddique, (Co supervision.):

“Study of acoustic modes in quantized semiconductor plasmas” **Completed**

3-Muhammad Amir Shabbir

“Jeans-Alfvén Instability in Quantum Magneto Plasmas” **Completed July 2016**

4- Gazanfar Ali

“Streaming Jeans-Alfvén Instability in quantum Magneto Plasmas” **Completed July 2016**

5- Sahar Akram

“The exchange Correlation effect on Jeans-Alfvén Instability in quantum Magneto Plasmas” **Completed July 2016**

6- Muhammad Jhangir

“Electrostatic Instability in Bounded Semiconductor Quantum Plasma” **Completed June 2017**

7- Muhammad Tanveer Abbas

"Streaming Instability with Exchange Field in Quantum Dusty Plasma" **Completed June 2017**

8-Sheraz Sharif

"Low Frequency Sonic Plasmon Instability in Quantum Semiconductor Plasmas" **Completed June 2018**

9- Rubina

"Study of dust-acoustic-waves with dust charge fluctuation in Quantum Plasma" **Completed June 2018**

10-Asif Zahoor

"Study of Streaming Dust Acoustic Instability in Quantum Plasmas" **Completed June 2018**

11- Umair Ahmad

"The Study of Dust Acoustic Waves in Degenerate Plasma" **Completed June 2018**

12- Tayyaba Zafar

"Instability Analysis of Longitudinal Surface Mode in Quantum Plasmas" **Completed Jan 2019**

13- Aftab Ahmad

"Study of Quantized Magnetic Field in Streaming Gravitational Dense Plasmas" **Completed Jan 2019**

14-Amir Sohail

Study of Magnetic Quantization in Gravitational Inhomogeneous Quantum Plasma" **Completed Jan 2019**

15) Zahra Shahid

"Landau Quantization effect on Jeans Instability in Dense Plasmas" **Completed July 2019**

16) Abdul Waheed

"Oxygen Cyclotron Harmonic Waves in the Inner Magnetosphere" **Completed July 2019**

17) Uzma Maqsood

"Electromagnetic Wave Instability with Charge Fluctuation in Semiconductor" **Completed July 2019**

18) Mubeen Ali

"Temperature Contributions on Large Amplitude High Frequency Oscillations in Quantum Plasmas"

Completed July 2019

19) Iqra Naeem

"Alfven Instability in Charge Fluctuating Quantum Plasma" **Completed July 2019**

20) Saad Samee

" Buneman Instability in Cylindrical Quantum Plasmas" **Completed Feb 2020**

21) M. Asif Nazir

"Kelvin-Helmholtz Instability in Quantum Plasmas" **Completed July 2021**

22) M. Ahsan Naeem

"Magnetosonic Instability with Radiation Impact in Semiconductors" **Completed March 2022**

23) Aashar Sajjad

"Radiation impact on acoustic waves in Semiconductor Plasmas" **Completed March 2022**

24) Waseem Abbas

"Low Hybrid Instability with Radiation Pressure Effects in Semiconductor Plasma" **Completed March 2022**

25) Syad Ali Raza

"Magneto Acoustic Analysis in Ion Implanted Quantum Semiconductor Plasmas" **Completed March 2023**

26) Muhammad Bilal Rafiq

"Electromagnetic Polarization in Ionized Quantum Plasmas" **Completed July 2024**

Research Awards:

- Pakistan Council for Science and Technology Research Productivity Award **2011 ,2012, 2013**
- COMSATS Research Productivity Award **2014,2015, 2016, 2017**
- Note: After 2017 University Award Scheme was stopped as well as the PCST.

Advisory Membership:

- Member **BOS**, Department of Physics, University of the Punjab, Lahore
- Member **BOS**, Department of Physics, Riphah International University, Lahore Campus
- Member graduate committee, Department of Physics, CUI Lahore

External Examiner of PhD Theses:

- 1) Department of Physics, Government College University Faisalabad.
- 2) Department of Physics, Malakand University, Malakand.
- 3) Department of Physics, Riphah International University, Lahore Campus.

External Examiner of MS Theses:

- 1) Department of Physics, Lahore College for Women University, Lahore.
- 2) Department of Physics, GC University Lahore.
- 3) Department of Physics, Government College University Faisalabad.
- 4) Department of Physics, Lahore Garrison University, Lahore.
- 5) Department of Physics, Mirpur University of Science and Technology, Mir Pur.
- 6) Department of Physics, Malakand University, Malakand.
- 7) Department of Physics, Riphah International University, Lahore Campus.

Research Papers: (IF: Impact factor)

IF: Physics of Plasmas (PoP) = **2.357**,

Arabian Journal of Science and Engineering (AJSE) = **2.807**

Plasma Physics and Control Fusion = **2.532**

Journal of Physics D: Applied Phys(J. Phys. D) = **2.373**

Physica Scripta(Phys. Scr)= **2.9**

International Journal of Modern Physics B=1.7

Journal of Plasma Physics (JPP) = **2.691**

Zeitschrift für Naturforschung A(ZNA) =**1.712**

The European Physical Journal Plus(Eur. Phys. J. Plus)= **2.758**

Astrophysics and Space Science (Astro.phys.Space sc)= **1.909**

Physica B: Condensed matter (Phys B: cond.matter) = **2.8**

AIP Advances = **1.6**

#	Title of Publication	Complete Name of Journal and address	Vol No	Page #	year	Impact factor
74	Nonlinear plasma wave excitation in cylindrical semiconductor Amir Sohail, A. Rasheed , F. Areeb, B. Ramzan, M. Jamil , Shahid Idrees, Yuanyong Deng	Chinese Journal of Physics (Taiwan)	96	678	2025	4.6
73	Electrostatic THz Excitation in Semiconductor Plasmas F. Areeb, A. Rasheed, P. Sumera, Asif Javed, M. Jamil	Arabian Journal of Science and Engineering(KS A)	50	517	2025	2.6
72	Unveiling non-monochromatic modes and nonlinearity in Piet Hein quantum semiconductor waveguides Shahid Idrees , M. Jamil , Jiangtao Su, A. Rasheed, Abdul Waheed, Jie Chen & Yuanyong Deng	Scientific Reports (UK)	14	25495	2024	3.8
71	A fluid approach to cosmic-ray modified shocks B. Ramzan, S.N.A. Qazi, Irshad Salarzai, Muhammad Tahir, Arshad M. Mirza, A. Rasheed, M. Jamil	Advances in Space Research (France)	74	4250	2024	2.61
70	Study of shear Alfvén waves with Landau quantization effect in degenerate relativistic plasma M. Rizwan, A. Rasheed, M. Jamil , F. Areeb, M. Fakhar-e-Alam, M. Atif, P. Sumera, I. Ahsan, Zulfiqar Ali	Journal of King Saud University - Science (KSA)	36	103239	2024	3.7
69	Magnetoacoustics and magnetic quantization of Fermi states in relativistic plasmas A. Iqbal, A. Rasheed, F. Areeb, S. Perveen, B. Ramzan and M. Jamil	Zeitschrift für Naturforschung A (Germany)	79(5)	431	2024	1.72
68	Continuous solutions of cosmic-rays and waves in astrophysical environments K. Irshad, B. Ramzan, S. N. A. Qazi, F. Areeb, A. Rasheed, M. Jamil	Scientific Reports (UK)	13	22850	2023	3.8
67	Transonic plasma winds with cosmic-rays and waves, B Ramzan, Zahid Mir, A Rasheed and M. Jamil https://iopscience.iop.org/article/10.1088/1402-4896/ad07bf	Physica Scripta	98	125005	2023	2.9

66	Kelvin–Helmholtz instability in magnetically quantized dense plasmas A. Rasheed, A. Nazir, F. Areeb, B. Ramzan, K. Zubia, M. Jamil	<i>Zeitschrift für Naturforschung A</i> https://doi.org/10.1515/zna-2023-0123	78(12)	1123	2023	1.712
65	Magnetosonics with Landau levels in GaAs semiconductor systems F. Areeb, I. Ahsan, A. Rasheed , P. Sumera , M. Jamil	Physica B: Condensed Matter	663	414968	2023	2.988
64	Low frequency hybrid instability in semi-relativistic GaAs plasmas Aneesa Iqbal , Muddasir Ali, M. Jamil and A. Rasheed	Physica Scripta	96	125605	2021	2.9
63	Dispersive Features of Plasma Waves in Nano-Waveguide Systems R. Ayesha, A. Rasheed, M. Ali, I. Zeba, M. Jamil	Arabian Journal of Science and Engineering	47	7473	2021	2.807
62	Streaming effects on dust i on acoustic wave in dense quantized plasmas Zahid Mir , A. Rasheed, Arroj A. Khan , M. Asif, and M. Jamil	International Journal of Modern Physics B	35(4)	2150049	2021	1.404
61	Oblique waveguide instability in quantum plasmas M. Jamil , M Ilyas, A Rasheed, R Ayesha, M Asif and M Shahid	Physica Scripta	95	115601	2020	2.9
60	Dynamic charging effect on electromagnetic wave in low β plasmas R. Ayesha, A. Rasheed, K. Zubia, N. Iqra, M. Sarfraz, M. Jamil	Astrophysics and Space Science	365	133	2020	1.909
59	Landau quantization effects on hybrid waves in semiconductor plasmas P. Sumera, A. Rasheed, F. Areeb, M. Siddique, Asif Javed, M. Jamil	The European Physical Journal Plus	135	356	2020	2.758
58	Landau Quantised Modifiation of Rayleigh–Taylor Instability in Dense Plasmas M. Shahid, A . Rasheed, Misbah Kanwal and M. Jamil	<i>Zeitschrift für Naturforschung A</i>	75(2)	113	2020	1.712
57	Proton firehose instability: An interplay of thermal core and non-thermal halo protons M. Sarfraz, S. Noureen, G. Abbas, I. Zeba, M. Jamil , and S. S. A. Gillani	AIP, Advances	9	125301	2019	1.697
56	Nonlinear frequency shift of acoustic waves in semiconductor plasmas Zahid Mir , A. Rasheed, M. Shahid, Arroj. A. Khan, and M. Jamil	Phys. Plasmas	26	112116	2019	2.357

55	Karpman-Washimi magnetization in relativistic quantum plasmas M. Jamil , A. Rasheed, M. Usman, W. Arshad, M. Jawwad Saif , and Young-Dae Jung	Phys. Plasmas	26	092110	2019	2.357
54	Acoustic Instability with Dynamic Charging in Quantum Plasmas A . Rasheed, K. Zubia, A . Rubina and M. Jamil	<i>Zeitschrift für Naturforschung A</i>	74(4)	333	2019	1.712
53	KdV acoustic structure with exchange-correlation potential in plasmas M. Siddique, A. Rasheed, M. Jamil , Asif Javed, and P. Sumera	<i>The European Physical Journal Plus</i>	134	263	2019	
52	Subsonic Potentials in Ultradense Plasmas Arroj A . Khan, I. Zeba and M. Jamil	Z. Naturforsch.A	47(3)	207	2019	1.712
51	Langmuir wave decays into O-mode and ICW in Earth's magnetosphere with inhomogeneous magnetic field M. Shahid, Sana Maehmood, Sobia Mehmood, Zahid Mir and M. Jamil	Phys. Plasmas	25	112902	2018	2.357
50	Instability of beam driven electrostatic modes in semiconductor quantum magneto plasmas , F. Areeb, A. Rasheed, and M. Jamil	Phys. Plasmas	25	102110	2018	2.357
49	Gravitational Drift Instability in Quantum Dusty Plasmas M. Jamil , Zahid Mir, A. Rasheed and A. Hussain	<i>Zeitschrift für Naturforschung A</i> (Germany)	73(12)	1137	2018	1.712
48	Modulational and three wave decay instabilities in degenerate electron-ion dense plasmas, Ch. Rozina, S. Ali, H. A. Shah, M. Jamil ,	Physics of Plasmas (USA)	25	092903	2018	2.357
47	Waveguide instability in streaming e-p-i dense plasmas, M. Jamil , R. Ayesha, A. Rasheed, Z. Iqbal, M. Asif	Physics of Plasmas (USA)	25	62124	2018	2.357
46	Langmuir instability in partially spin polarized bounded degenerate plasma, Z. Iqbal, M. Jamil , and G. Murtaza,	Physics of Plasmas (USA)	25	42106	2018	2.357
45	Nonlinear beat excitation of low frequency wave in degenerate plasmas Z. Mir, M. Shahid, M. Jamil , A. Rasheed, A. Shahbaz	Physics of Plasmas (USA)	25	32120	2018	2.357
44	Impact of Relativistic Electron Beam on Hole Acoustic Instability in Quantum Semiconductor Plasmas, M. Siddique, M. Jamil , A. Rasheed, F. Areeb, Asif Javed, P. Sumera	<i>Zeitschrift für Naturforschung A</i> (Germany)	73(2)	135	2018	1.712
43	Hole-cyclotron instability in semiconductor quantum plasmas, F. Areeb, A. Rasheed, M. Jamil , M. Siddique, P. Sumera	Physics of Plasmas (USA)	25	12111	2018	2.357
42	Oscillatory wake potential with exchange-correlation in plasmas, Arroj A. Khan, I. Zeba, M. Jamil , M. Asif	Physics of Plasmas (USA)	24	123708	2017	2.357

41	Janus modes of Hasegawa plasma waves in a streaming and tempestuous plasma pillar, M-J. Lee, K-S. Chung, M. Jamil , A. Rasheed, Y-D. Jung	Physics of Plasmas (USA)	24	122111	2017	2.357
40	Landau quantization effects on hole-acoustic instability in semiconductor plasmas, P. Sumera, A. Rasheed, M. Jamil , M. Siddique, F. Areeb	Physics of Plasmas (USA)	24	122107	2017	2.357
39	Effect of magnetic quantization on ion acoustic waves ultra-relativistic dense plasma, Asif Javed, A. Rasheed, M. Jamil , M. Siddique, and N. L. Tsintsadze	Physics of Plasmas (USA)	24	112301	2017	2.357
38	Streaming Jeans-Alfvén Instability in Quantum Magnetoplasmas, M. Jamil , A. Rasheed, F. Hadi, G. Ali and M. Ayub	<i>Zeitschrift für Naturforschung A</i> (Germany)	72(11)	1003	2017	1.712
37	The Exchange-Correlation Field Effect over the Magnetoacoustic-Gravitational Instability in Plasmas A. Rasheed, M. Jamil , Y-D. Jung, A. Sahar, M. Asif	<i>Zeitschrift für Naturforschung A</i> (Germany)	72(10)	915	2017	1.712
36	Raman three-wave interaction in partially spin polarized plasma M. Shahid, Z. Iqbal, M. Jamil , G. Murtaza	Physics of Plasmas (USA)	24	102113	2017	2.357
35	Shear Alfvén Wave with Quantum Exchange Correlation Effects in Plasmas Zahid Mir, M. Jamil , A. Rasheed, M. Asif	<i>Zeitschrift für Naturforschung A</i> (Germany)	72(10)	891	2017	1.712
34	Low frequency waves in streaming quantum dusty plasmas Ch. Rozina, M. Jamil , Arroj A. Khan, I. Zeba, J. Saman	Physics of Plasmas (USA)	24	093702	2017	2.357
33	Jeans-Alfvén instability in quantum dusty Magnetoplasmas, M. Jamil , A. Rasheed, M. Amir, G. Abbas, Y-D. Jung	Journal of Plasma Physics (UK)	83	90583-0106	2017	2.691
32	SNS potential with exchange field in quantum dusty plasmas, I Zeba, Maryam Batool, Arroj A. Khan, M. Jamil, Ch Rozina,	Plasma Physics and Control Fusion	59	025008	2017	2.532
31	Potential surface waves at the vacuum-radiative collisional plasma interface, Arroj A. Khan, Ch. Rozina, M. Jamil	Physics of Plasmas (USA)	23	112111	2016	2.357
30	Shukla-Spatschek diffusion effects on the spatial damping of space-charge waves in a turbulent plasma waveguide, W-P. Hong, M. Jamil , A. Rasheed, Y-D. Jung	<i>The European Physical Journal Plus</i>	131	399	2016	2.758
29	Propagation of ultra-intense electromagnetic waves through electron-positron-ion plasma, Ch. Rozina, N. L. Tsintsadze, M. Jamil	Physics of Plasmas (USA)	23	072303	2016	2.357
28	Low frequency hybrid instability in quantum magneto semiconductor plasmas A. Rasheed, M. Jamil, F Areeb, M. Siddique, M. Salimullah	Journal of Physics D: Applied Physics (UK)	49	175108	2016	2.373
27	Quantum Electron-Exchange Effects on the Buneman Instability in Quantum Plasmas, W-P. Hong, M. Jamil , A. Rasheed, Y-D. Jung	<i>Zeitschrift für Naturforschung A</i> (Germany)	70(6)	413	2015	1.712

26	Dust-lower-hybrid instability with fluctuating charge in quantum plasmas, M. Jamil , M. Ali A. Rasheed, K. Zubia, M. Salimullah	Physics of Plasmas (USA)	22	032107	2015	2.357
25	Wake potential with exchange-correlation effects in semiconductor quantum plasmas Arroj A. Khan , M. Jamil , and A. Hussain	Physics of Plasmas (USA)	22	092103	2015	2.357
24	Jeans instability with exchange effects in quantum dusty magnetoplasmas, M. Jamil , A. Rasheed Ch. Rozina, Y-D. Jung , M. Salimullah	Physics of Plasmas (USA)	22	082113	2015	2.357
23	Karpman-Washimi magnetization with electron-exchange effects in quantum plasmas” W-P. Hong , M. Jamil , A. Rasheed , Y-D. Jung	Physics of Plasmas (USA)	22	073302	2015	2.357
22	Beam driven Upper-Hybrid Wave Instability in quantized semiconductor plasmas, M. Jamil , A. Rasheed , Ch. Rozina , W. M. Moslem , and M. Salimullah	Physics of Plasmas (USA)	21	020704	2014	2.357
21	Jeans stability in collisional quantum dusty Magnetoplasmas, M. Jamil , Zahid Mir , M. Asif , M. Salimullah	Physics of Plasmas (USA)	21	092111	2014	2.357
20	Shielding with the dynamics of electron-acoustic wave in multi-electron plasmas, A. Rasheed, M. Jamil , Arroj A. Khan, W. M. Moslem	Astrophysics and Space Science (Switzerland)	354	2098	2014	1.909
19	Renormalization screening and collision-induced quantum interference in dense plasmas, Y.-D. Jung , A. Rasheed , M. Jamil	Physics of Plasmas (USA)	21	074503	2014	2.357
18	Electromagnetic wave instability in a relativistic electron-positron-ion plasma, Ch. Rozina, N. L. Tsintsadze M. Jamil , A. Rasheed, S. Ali	Astrophysics and Space Science (Switzerland)	353	485	2014	1.909
17	Beam excited acoustic instability in semiconductor quantum plasmas” A. Rasheed , M. Jamil , M. Siddique , F. Huda , Y.-D. Jung ,	Physics of Plasmas (USA)	21	062107	2014	2.357
16	Shukla-Nambu-Salimullah Potential with multi electron species in magnetoplasmas Arroj A. Khan, M. Jamil , A. Rasheed, G. Murtaza,	Physics of Plasmas (USA)	20	022107	2013	2.357
15	Spin effect on parametric interactions of waves in magnetoplasmas M. Shahid, D. B. Melrose, M. Jamil , G. Murtaza	Physics of Plasmas (USA)	19	12114	2012	2.357
14	Multi electron species and shielding potentials in plasmas Arroj A. Khan, A. Rasheed, M. Jamil , G. Murtaza	Physics of Plasmas (USA)	19	114501	2012	2.357
13	Diamagnetic drift instabilities in collisional non-uniform quantum dusty Magnetoplasmas M. Jamil , Ch. Uzma, K. Zubia, I. Zeba, H. M. Rafique, M. Salimullah	Journal of Plasma Physics (UK)	78	0589	2012	2.691
12	Stability analysis of self-gravitational electrostatic drift waves for a streaming nonuniform quantum dusty magnetoplasma M. F. Bashir, M. Jamil , G. Murtaza, M. Salimullah, H. A. Shah	Physics of Plasmas (USA)	19	43701	2012	2.357

11	Quantum modification of dust shear Alfvén wave in plasmas M. Jamil , M. Shahid, I. Zeba, M. Salimullah, H. A. Shah, G. Murtaza	Physics of Plasmas (USA)	19	23705	2012	2.357
10	Erratum “The parametric decay of DIA waves in nonuniform quantum dusty magnetoplasmas”. M. Jamil , M. Shahid, Waris Ali, M. Salimullah, H. A. Shah, G. Murtaza	Physics of Plasmas (USA)	18	089902	2011	2.357
9	The parametric decay of DIA waves in nonuniform quantum dusty magnetoplasmas. M. Jamil , M. Shahid, Waris Ali, M. Salimullah, H. A. Shah, G. Murtaza	Physics of Plasmas (USA)	18	63705	2011	2.357
8	Colloidal crystal formation in a semiconductor quantum plasma I. Zeba, Ch. Uzma, M. Jamil , M. Salimullah, P. K. Shukla	Physics of Plasmas (USA)	17	32105	2010	2.357
7	The parametric decay of Alfvén waves into shear Alfvén waves and dust lower hybrid waves M. Jamil , H. A. Shah, M. Salimullah, K. Zubia, I. Zeba, Ch. Uzma	Physics of Plasmas (USA)	17	73703	2010	2.357
6	Modified screening potential in a high density inhomogeneous quantum dusty magnetoplasma A. Hussain, I. Zeba, M. Salimullah, G. Murtaza, M. Jamil	Physics of Plasmas (USA)	17	54504	2010	2.357
5	Parametric interactions in ion-implanted piezoelectric semiconductor plasmas S. Ghosh, P. Thakur, N. Yadav, M. Jamil , M. Salimullah	Arabian Journal of Science and Engineering (Switzerland)	35(1A)	231	2010	2.807
4	Electromagnetic waves in dusty magnetoplasmas using two- potential theory. K. Zubia , M. Jamil , M. Salimullah	Physics of Plasmas (USA)	16	94501	2009	2.357
3	Potentials in a nonuniform quantum dusty magnetoplasma M. Salimullah, I. Zeba, Ch. Uzma, M. Jamil	Physics of Plasmas (USA)	16	33703	2009	2.357
2	Drift wave instability in a nonuniform quantum dusty Magnetoplasma, M. Salimullah, M. Jamil , I. Zeba, Ch. Uzma, and H. A. Shah	Physics of Plasmas (USA)	16	34503	2009	2.357
1	Jeans instability in a quantum dusty magnetoplasma M. Salimullah, M. Jamil , H. A. Shah, G. Murtaza	Physics of Plasmas (USA)	16	14502	2009	2.357

Taught Courses

PhD Classes:

- Advanced Statistical Physics
- Photonics Mesoscopic Systems
- Non Linear Optics
- Low Temperature Plasmas
- Advanced Plasmas

MS (M. Phil) Classes:

- Mathematical Methods and Computational Physics
- Plasma Physics 1

BS (Hons.) Classes:

- Electricity and Magnetism
- Computational Physics
- Nuclear Physics
- Modern Physics
- Applied Physics for Engineers (EE)
- Mathematical Methods in Physics
- Statistical Physics
- Basic Mathematics
- Boundary Value Problems
- Statistical Physics I
- Statistical Physics II
- Mechanics

Other Responsibilities:

- Class Coordinator for BS(Hons.)

Journal Reviewer:

- Physics of Plasmas
- Astrophysics and Space Science
- Zeitschrift für Naturforschung A
- The European Journal of Physics D
- Acta Acustica united with Acustica
- Indian Journal of Physics

- Acta Physica Polonica A
- Physica Scripta
- Plasma Physics and Control Fusion

Talks / Lectures delivered (Title/ Venue)

- Fourier Transformation and its applications, Departmental seminar at **GC University Lahore**
- Drift wave instabilities in quantum dusty plasmas, theoretical group talk at **GC University Lahore** and **The University of Punjab Lahore**.
- Parametric decay of Alfvén wave into shear Alfvén wave and dust lower hybrid waves, theoretical group talk at **GC University Lahore** and **The University of Punjab Lahore**.
- Electromagnetic waves using two potential theory, theoretical group talk at **GC University Lahore** and **The University of Punjab Lahore**.
- Parametric decay of DIA wave in quantum plasmas, theoretical group talk at **GC University Lahore** and **The University of Punjab Lahore**.
- Parametric instability in complex plasmas, Conference talk at **University of Gujrat, Gujrat**.
- Study of collective interactions in complex plasmas, Departmental seminar at **GC University Lahore**
- Drift wave instability in quantum dusty plasmas, International Scientific Spring speaker at **NCP Islamabad**
- Parametric Interactions in complex Plasmas, International workshop on theoretical Plasmas at **COMSTech Islamabad**
- Exchange-correlation effect on Jeans Instability In Quantum Plasmas, International Scientific Spring, March 7-11, 2016 at NCP, Islamabad.
- Invited Talk, University of Gujrat, 2017
- Invited Talk at GC University Faisalabad 2017
- Invited Talk at GC University Lahore, 2017
- Invited Talk at Riphah International University, Lahore Campus, 2017
- Invited Talk at Riphah International University, Lahore Campus, 2018
- Invited Talk at GC University Lahore, 2018
- Invited Talk at GC University Lahore, 2019
- Invited Talk at Govt. Civil Lines College Lahore, 2020
- Invited Talk at 8th EuroAsia (online), Turkey, 2020

- Invited Talk at Vikram University (online), India, 2020
- Invited Talk at Riphah International University, Lahore Campus, 2021
- Invited Talk at Lahore College for Women University, Lahore, 2021
- Invited Talk at Riphah International University, Lahore Campus, 2021
- Invited Talk at EuroAsian Congress 8(online), Turkey, 2021
- Invited Talk at Lahore Garison University(online), Lahore, 2021
- Invited Talk at Nationnal Centre for Physics(online), 2021
- Invited Talk at Govt. College for Women, Gulberg Lahore, 2021
- Invited Talk at Govt. College Women University (online), Faisalabad, 2021
- Invited Talk at Govt. Civil Lines College Lahore, 2021
- Invited Talk at GC University Lahore, 2022
- Invited Talk at Govt. Civil Lines College Lahore, 2023
- Invited Talk at Riphah International University, Lahore Campus, 2023
- Talk at Govt. College Layyah, 2023
- Invited Talk at Govt. College University Faisalabad, 2024
- Invited Talk at Quaid e Azam University Islamabad, 2025
- Invited Talk at Govt. College University Faisalabad, 2025
- Invited Talk at Forman Christian College University Lahore , 2025

Conferences/Courses Attended:

- 10th National Symposium on Frontiers in Physics, 11-14 January 2005 at GC University Lahore.
- Certificate of Lecture Course on Nuclear Data delivered by Dr. SYED M.QAIM (Prof. University of Cologne, Scientist at Research Center, Julich, Germany) 2005 at GC University Lahore.
- Salam Memorial Meeting Organized by National Centre for Mathematics, Salam Chair and Physics Department of GC University Lahore and the Pakistan Physics Society held in 21st November 2005.
- International Symposium on Contemporary Physics at NCP, Islamabad (2007).
- International Conference on “Research Methodology in Plasma Physics”, November 21-

22, 2008 at University of Gujrat, Pakistan.

- 11th National Symposium on Frontiers in Physics, January 29-31, 2009 at GC University Lahore.
- 1st NCP Scientific Spring 2009, April 6th -9th, 2009 at NCP, QAU Islamabad Pakistan.
- 1st National Conference on Radiation, Particles and Matter, December 22-24, 2009 at CASP, GC University Lahore.
- International Scientific Spring – 2010, March 01 – 06, 2010 at NCP, QAU Islamabad Pakistan.
- Workshop on Astrophysics and Dense Plasmas, June 01-03, 2010, at NCP, QAU Islamabad Pakistan.
- Frontiers on Physics, February 02-04, 2011 at GCU, Lahore
- International Scientific Spring, March 01-04, 2011 at NCP, Islamabad.
- International workshop on plasmas Physics, March 5, 2011 at NCP, Islamabad.
- International Scientific Spring, March, 4-9, 2012 at NCP, Islamabad.
- International workshop on plasmas Physics, March, 10, 2012 at NCP, Islamabad.
- International workshop on plasmas Physics, Nov. 19-21, 2012 at COMSTech, Islamabad.
- National Seminar on nanotechnology, December, 6, 2012 at GCUF, Faisalabad.
- International Scientific Spring, March 11-15, 2013 at NCP, Islamabad.
- International workshop on plasmas Physics, March, 16, 2013 at NCP, Islamabad.
- Ist ICTP-NCP International College of Plasma Physics, Oct. 2013 Islamabad.
- International Scientific Spring, March 10-14, 2014 at NCP, Islamabad.
- International Scientific Spring, March 7-11, 2016 at NCP, Islamabad.