

Name :	Dr. Azhar Hussain
Education:	PhD, GC University Lahore M.Phil, GC University Lahore
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Experience:	<ul style="list-style-type: none"> • Currently I have been working as Chairperson Physics/Associate Professor Department of Physics MUST Mirpur AJK since April 15, 2024. • I have served as Director QEC at MUST Mirpur AJK at the additional charge, from October 17, 2022, to April 14, 2024. • I have served as Deputy Director QEC at MUST Mirpur AJK at the additional charge, from August 17, 2021, to October 16, 2022. • I have worked as Assistant Professor of Physics at MUST Mirpur, Azad Jammu & Kashmir (AJK) Pakistan from 20-02-17 to 25-02-2022. • I have more than two years of university teaching/research experience at GC University Lahore, and Quaid-i-Azam University Islamabad, Pakistan during the years 2014-2017.
Honors and Awards	<ul style="list-style-type: none"> • Indigenous PhD Scholarship Batch-III • Six-month HEC IRSIP award, worked at Umea University Sweden • One year Five months Fellowship Award from ASICTP, Trieste, Italy
Memberships	Lifetime member Pakistan Physical Society (PPS),
Brief Statement of Research Interest	My area of interest includes both Fluid and Kinetic description of plasmas. My research work focuses on the study of plasma waves and associated instabilities, and also on the role of electron spin degree of freedom in high-density plasma environments.
Key Publications	<ol style="list-style-type: none"> 1. Oblique Bernstein wave propagation in electron-ion plasma with electron quantization effects, A. Hussain, A. Majeed, M. Ayub, G. Murtaza, Z. Iqbal, Contrib. Plasma Phys. 63, e202200160 (2023).). I.F. 1.608 2. Drifts effect on the ordinary plasma wave and the existence of new spin dependent electron drift in the spin quantum plasma, M. Shahid, Sana Usmani, Z. Iqbal, A. Hussain, and Shujahat Hussain Bukhari, Physics of Plasmas 29, 062107 (2022). I.F. 2.2 3. On the two stream instability with electron spin effects, A. Hussain, Z. Iqbal, G. Murtaza, and G. Murtaza, Physics of Plasmas 26, 092115 (2019). I.F. 1.830 4. R- and L-Waves in Electron-Positron Spin Quantum Plasmas, M. Shahid, Z. Iqbal, A. Hussain, G. Murtaza, Physica Scripta 90, 025605 (2015). I.F. 1.194 5. On the damping of right hand circularly polarized waves in spin quantum plasmas, Z. Iqbal, A. Hussain, G. Murtaza, M. Ali, Physics of Plasmas 21,

	<p>122118 (2014). I.F. 2.142</p> <p>6. Weakly relativistic quantum kinetic theory for electrostatic wave modes in magnetized plasmas, A. Hussain, Martin Stefan and Gert Brodin, Physics of Plasmas 21, 032104 (2014). I.F. 2.142</p> <p>7. A comparison of parametric decay of oblique Langmuir wave in high and low density magnetoplasmas, M. Shahid, A. Hussain, G. Murtaza, Physics of Plasmas 20, 092121 (2013). I.F. 2.249</p> <p>8. On the kinetic Alfvén waves in nonrelativistic spin quantum plasmas, A. Hussain, Z. Iqbal, G. Brodin, G. Murtaza, Physics Letters A 377, 2131 (2013). I.F. 1.626</p> <p>9. New Longitudinal Waves in Electron-Positron-Ion Quantum Plasmas, N.L. Tsintsadze, L.N. Tsintsadze, A. Hussain, and G. Murtaza, European Physical Journal D 64, 447 (2011). I.F. 1.476</p> <p>10. Modified Debye screening potential in a magnetized quantum plasma, M. Salimullah, A. Hussain, I. Sara, G. Murtaza, H.A. Shah, Physics Letters A, 373, 2577 (2009). I.F. 2.009</p>
Research Grants and Contracts	<p>Successfully Completed HEC NRPU project (2019-21), 0.643M/- Project Title: Role of Electron Spin Effects on the Plasma Shielding Potentials</p>
Selected Professional Presentations	<ol style="list-style-type: none"> 1. Delivered an invited talk on the topic “<i>Times Higher Education and QS University Rankings</i>” at Women University of Azad Jammu and Kashmir, Pakistan, Bagh January (12) 2023. 2. Delivered an invited talk on the topic “<i>Revisiting Oscillating Two Stream Instability with Electron Spin Effects</i>” in the 17th Symposium on Frontiers in Physic, organized by GCU Lahore and Pakistan Physical Society, Lahore December (01-03) 2022. 3. Delivered an invited talk on the topic “<i>Quality of Educational Organization Management Systems EOMS 21001: 2018 ISO Standard</i>” at Mechanical Hall, MUST, Mirpur AJK Pakistan, organized by Student Assistance Center MUST, Mirpur June (17) 2022. 4. Delivered an invited talk on the topic “<i>Oblique Bernstein Wave Propagation in Electron-Ion Plasma with Electron Quantization Effects</i>” in Region E-conference on Physics, organized by the International Union of Pure and Applied Physics (IUPAP), Pakistan Physical Society (PPS), and FC College University Lahore, Lahore January (18-21) 2022. 5. Delivered an invited talk on the topic “<i>Study of Two Stream Instability in</i>

Magnetized Quantum Plasma” in **16th National Symposium on Frontiers in Physics** at GC University Lahore, Lahore January (29-31) 2019.

6. Delivered an invited talk on the topic “*Plasma Shielding Potentials with Electron Spin Effects*” in **15th National Symposium on Frontiers in Physics** at GC University Lahore, Lahore January (29-31) 2018.
7. Delivered a brief talk on the topic “*On the Ordinary Mode and Whistler Mode Instabilities in the Degenerate Anisotropic Plasmas*” at **Department of Physics, QAU Islamabad**, on 18th June 2016.
8. Delivered a brief group talk on “*Zero-sound waves in Electron-Positron-Ion Quantum Plasmas*” at **Department of Physics, Umea University Sweden** January 2012.
9. Delivered an invited talk on the topic “*New longitudinal waves in Electron-Positron-Ion Quantum Plasmas*” in **International Workshop on Plasma Science** held at COMSTECH Islamabad November (19-21) 2012.
10. Delivered an invited talk on the topic “*New longitudinal waves in Electron-Positron-Ion Quantum Plasmas*” in **13th National Symposium on Frontiers in Physics** at the University of Peshawar, Peshawar (KPK) December (19-21) 2012.