LIST OF PUBLICATIONS OF DR. G. MURTAZA
at Salam Chair in Physics, GCU Lahore (since March 2000 )

(109=80 Research Papers +29 Conference Proceedings)

1. Energy Loss of a Test Charge in Partially Ionized Dusty Plasmas
   Physics of Plasmas, 7, 762 (2000)
   (M.H. Nasim, M.S Qaisar, Arshad M. Mirza, G. Murtaza and P.K. Shukla)

2. Electromagnetic Ion-Temperature-Gradient Modes and Anomalous Transport in a
   Nonuniform Magnetized Plasma with Equilibrium Flows
   Physics of Plasmas, 7, 1125 (2000)
   (Tariq Rafiq, Anisa Qamar, Arshad M. Mirza, G. Murtaza and P.K. Shukla)

3. Energy Loss of a Test Charge in Collisional Dusty Plasmas
   (M.H. Nasim, Arshad M. Mirza, G. Murtaza and P.K. Shukla)

4. Study of Plasma Parameters in a Spinning Thick-Gas-Puff Staged Pinch
   (N.A.D. Khattak, Zahoor Ahmad, Arshad M. Mirza and G. Murtaza)

5. Chaotic behavior of ion-temperature-gradient driven drift-dissipative modes
   Physics of Plasmas, 7, 4499 (2000)
   (Tariq Rafiq, Anisa Qamar, Arshad M. Mirza, and G. Murtaza)

6. Efficiency of plasma focus for argon K-series line radiation emission
   (M. Zakaullah, Khalid Alamgir, G. Murtaza and A. Waheed)

7. A Cost Effective X-Ray Detector for Plasma Focus Diagnostics
   (M. Zakaullah, Ijaz Akhtar, S. F. Mehmood, A. Waheed and G. Murtaza)

8. Wake-field excitation in a multicomponent dusty plasma
   Physica Scripta, T89, 191 (2001)
   (M. H. Nasim, Arshad M. Mirza, G. Murtaza and P. K. Shukla)

9. Electrostatic ion-temperature-gradient modes and anomalous transport in a collision-
   dominated plasma Physica Scripta, 63, 43 (2001)
   (T. Farid, A. M. Mirza, P. K. Shukla, and G. Murtaza)

10. Correlation of plasma electron temperature with neutron emission in a low energy
    plasma focus
    (M. Zakaullah, K. Alamgir, Ather Rasool, M. Shafiq, G. Murtaza and A. Waheed)

11. Low energy plasma focus as a tailored X-ray source
    (M. Zakaullah, K. Alamgir, M. Shafiq, M. Sharif, A. Waheed and G. Murtaza)

12. High β relaxed states with internal conductor plasma configuration
    Physics of Plasmas 8, 1559 (2001)
    (M. Iqbal, A. M. Mirza, G. Murtaza and Z. Yoshida)

13. Anisotropic Energy Loss of a Pair of Charged Projectiles in a Dusty Plasma
    Physica Scripta, 64, 346 (2001)
(G. Murtaza and M. H. Nasim)

14. High Efficiency Neutron Detector for Low Neutron Flux Measurement
(A. Waheed, Aqil-ur-Rahman, M. Zakaullah and G. Murtaza)

15. Thermonuclear fusion in a multicascade liner staged pinch
Laser and Particle Beams 19, 657 (2001)
(Zahoor Ahmed, Arshad M. Mirza, N. A. D. Khattak and G. Murtaza)

16. Improved temperature measurement in a plasma focus by means of a cobalt filter
(M. Zakaullah, K. Alamgir, M. Shafiq, S. M. Hassan, G. Murtaza and A Waheed)

17. Elliptic Solitary Electron Drift Vortices in Semiconductor Piezoelectrics
(H. A. Shah, M. Hameed and G. Murtaza)

18. Flow of An Elastico-Viscous Fluid Past An Infinit Wall with Time-Dependent Suction

(G. Murtaza)

20. Plasma Focus as an X-ray source for tailoring of radiation in different energy windows
(M. Zakaullah, K. Alamgir, M. Shafiq, M. Sharif, A. Waheed and G. Murtaza)

21. Debye shielding distortion of dust grains in dusty plasmas
Physics of Plasmas, 9, 3629 (2002)
(Faisal Yaqoob, Shahid Ali and G. Murtaza)

22. Fully nonlinear dust kinetic Alfve´n waves
Physics of Plasmas, 9, 3794 (2002)
(M. Ansar Mahmood, Arshad M. Mirza, P. H. Sakanaka and G. Murtaza)

23. Scope of plasma focus with argon as a soft X-ray source
(M. Zakaullah, K. Alamgir, M. Shafiq, M. S. Hassan, G. Murtaza and A. Waheed)

24. A simple technique to record X-ray fluence anisotropy of a source,
(M. Shafiq, M. Sharif, Sartaj, M. Zakaullah, A. Waheed and G. Murtaza)

25. Soft X-Ray emission in the (1.0-1.5 KEV) window with Nitrogen filling in a low energy
Plasma Focus
(M. Shadiq, Sartaj, S. Hussain, M. Sharif, S. Ahmad, M. Zakaullah, A. Waheed,
G. Murtaza and R. Ahmad)

26. Attractive Wake Field Formation due to array of Dipolar Projectiles in a Multi-
component Dusty Plasma
27. Characterization of argon plasma by use of optical emission spectroscopy and Langmuir probe measurements
   Int J. Mod Physics B 17, 2749 (2003)

28. Formation of quadrupolar vortices in ion-temperature-gradient modes
   (Anisa Qamar, Arshad M. Mirza, G. Murtaza, J. Vranješ and P. H. Sakanaka)

29. Exact nonlinear dust kinetic Alfvén waves in a dust-ion plasma
   (Arshad M. Mirza, M. Ansar Mahmood and G. Murtaza)

30. Effects of dust-charge fluctuations on the potential of an array of projectiles in a partially ionized dusty plasma
   (S. Ali, M.H. Nasim and G. Murtaza)

31. Longitudinal oscillations and linear Landau damping in quark-gluon plasma
   (G. Murtaza, N.A.D. Khattak and H.A. Shah)

32. Study of X-ray emission from a compact diode operated by a high capacitor discharge
   (M. Z. Khan, S. Ahmad, M. Zakaullah, A. Waheed, R. Ahmad and G. Murtaza)

33. Study of lateral spread of ions emitted from 2.3 kJ plasma focus with hydrogen and nitrogen gases
   (R. Ahmad, M. Hassan, G. Murtaza, A. Waheed and M Zakaullah)

34. Some electrostatic modes based on non-Maxwellian distribution functions
   (S. Zaheer, G. Murtaza and H. A. Shah)

35. Parallel propagating electromagnetic modes with (r,q) Distribution Function
   (M. N. S. Qureshi, H. A. Shah, G. Murtaza and F. Mahmood)

36. Collective Modes and Linear Landau Damping in a Quark-Gluon Plasma
   (G. Murtaza, N.A.D. Khattak and H.A. Shah)

37. Correlation effects due to an axial propagation of Projectiles in dusty Plasma
   Physics of Plasmas 12, 033502 (2005)
   (S. Ali, G. Murtaza and M.H. Nasim)

38. Energy loss for the assemblies of charged Projectiles in a dusty Plasma
   Physics of Plasmas 12, 072104 (2005)
   (S. Ali, G. Murtaza and M.H. Nasim)
39. Dust charge fluctuation with non-Maxwellian Distribution function
Physica Scripta 73, 178 (2006)
(N. Rubab and G. Murtaza)

40. Generation of Vortex Rings by Nonstationary Laser Wake Field
Physics of Plasmas 13, 012307 (2006)
(Nodar Tsintsadze, G. Murtaza and H. A. Shah)

41. A Novel aspect of dust in Plasma
Physics of Plasmas 13, 022103 (2006)
(Nodar Tsintsadze, G. Murtaza and Z. Ehsan)

42. Co-deposition of titanium and iron nitrides on SS-321 by using plasma focus
(R. Ahmad, M. Hassan, G. Murtaza, J.I. Akhter, A. Qayyum, A. Waheed and M. Zakaullah)

43. Study of obliquely propagating dust acoustic solitary waves in magnetized tropical mesospheric plasmas with effect of dust charge variations and rotation of the plasma
(Mushtaq, H.A. Shah, N. Rubab and G. Murtaza)

44. Parallel Proton Heating In Solar Wind Using Generalized (r,q) Distribution Function
(Z. Kiran, H.A. Shah and G. Murtaza)

45. Surface modification of AlFe1.8Zn0.8 alloy by using dense plasma focus
Vacuum 81, 291(2006)
(M. Hassan, R. Ahmad, G. Murtaza, A. Qayyum, A. Waheed and M. Zakaullah)

46. Perpendicularly propagating electromagnetic modes in a strongly magnetized hot plasma with non-Maxwellian distribution function
Physics of Plasmas 13, 062109 (2006)
(S. Zaheer, G. Murtaza and H. A. Shah)

47. A specific properties of electromagnetic waves interacting with dust-laden plasma
Physics of Plasmas 13, 072103 (2006)
(Nodar Tsintsadze, Z. Ehsan, H. A. Shah and G. Murtaza)

48. Electrostatic potentials and engery loss due to a projectile propagating through a Non-Mazwellian dusty plasma
(F. Deeba, Zahoor Ahmad and G. Murtaza)

49. Debye length in non-Maxwellian plasmas
(N. Rubab and G. Murtaza)

50. Effect of non-Maxwellian particle trapping and dust grain charging on dust acoustic solitary waves
(N. Rubab, G. Murtaza and A. Mushtaq)
51. Electromagnetic dust-lower-hybrid and dust-magnetosonic waves and their instabilities in a dusty magnetoplasma

52. Effects of inhomogeneity on the Shukla-Nambu-Salimullah potential in a magnetized plasma
(M. Salimullah, H. A. Shah, G. Murtaza, H. Nitta and M. Tessarotto)

53. Nitriding of titanium by using ion beam delivered by a plasma focus
(M. Hassan, A. Qayyum, R. Ahmad, G. Murtaza and M. Zakaullah)

54. Weibel Instability with non-Maxwellian distribution functions
Physics of Plasmas 14, 022108 (2007)
(S. Zaheer and G. Murtaza)

55. Kinetic Alfven waves in a homogeneous dusty magnetoplasma with dusty charge fluctuation effects
Physics of Plasmas 14, 032105 (2007)
(K. Zubia, N. Rubab, H.A. Shah, M. Salimullah and G. Murtaza)

56. Stability of a charged interface between a magneto-radiative dusty plasma and vacuum
Physics of Plasmas 14, 073703 (2007)
(Nodar Tsintsadze, Rozina Chaudhary, H. A. Shah and G. Murtaza)

57. Weibel instability with Semirelativistic Maxwellian distribution function
Physics of Plasmas 14, 072106 (2007)
(S. Zaheer and G. Murtaza)

58. Glow Discharge Plasma Nitriding of AISI 304 Stainless Steel
Plasma Science and Technology 9, No.4 August (2007)
(A. Qayyum, M.A. Naveed, Shaista Zeb, G. Murtaza, M. Zakaullah)

59. Effect of Plasma Focus Discharge Currents and Repetition Rates on Evolution of Nanocrystalline Multiphase Titanium Carbide/a-C Thin Films
(M. Hassan, R.S. Rawat, P. Lee, S.M. Hassan, A. Qayyum, R. Ahmad, G. Murtaza and M. Zakaullah)

60. Possible colloid crystal formation in a magnetized and inhomogeneous semiconductor plasma
(M. Salimullah, Z. Ehsan, K. Zubia, H. A. Shah and G. Murtaza)

61. Longitudinal Photons in a Relativistic Magneto-active Plasma
Physics of Plasmas, 14, 102113 (2007)
(N.L. Tsintsadze, Ayesha Rehman, G. Murtaza and H.A. Shah)

62. Collective modes of ultrarelativistic magnetoactive electron plasma
63. Wake Potential in a nonuniform self-gravitating dusty magnetoplasma in the presence of ion streaming
Physics of Plasmas 14, 104505 (2007)
(M. Salimullah, Z. Ehsan, K. Zubia, H.A. Shah and G. Murtaza)

64. Dust charge fluctuation instability in a dusty plasma with equilibrium density and magnetic field inhomogeneities
Physics of Plasmas 14, 114502 (2007)
(M. Salimullah H. A. Shah and G. Murtaza)

65. Wake potential in a self-gravitating dusty plasma
(M. Salimullah, Z. Ehsan, H.A. Shah and G. Murtaza)

66. Langmuir probe characterization of nitrogen plasma for surface nitriding of AISI-4140 steel
(M.S. Shah, M. Saleem, R. Ahmad, M. Zakaullah, A. Qayyum and G. Murtaza)

67. Dust acoustic shock wave in electronegative dusty plasma: Role of weak magnetic field
(Samiran Ghosh, Z. Ehsan and G. Murtaza)

68. Synthesis of nanocrystalline multiphase titanium oxycarbide (TiCxOy) thin films by UNU/ICTP and NX2 plasma focus devices
Appl. Physics A 90, 669 (2008)
(M. Hassan, R.S. Rawat, P. Lee, S.M. Hassan, A. Qayyum, R. Ahmad, G. Murtaza and M. Zakaullah)

69. Nitridation of zirconium using energetics ions from plasma focus device

70. Jeans instability in a magneto-radioactive dusty plasma
(Nodar Tsintsadze, Rozina Chaudhary, H.A. Shah and G. Murtaza)

71. Perpendicularly propagating electromagnetic modes in a strongly magnetized hot relativistic maxwellian plasma
(S.Zaheer and G. Murtaza)

72. Compression enhancement by current stepping in a multicascade liner gas-puff Z-pinch plasma
Physica Scripta 77, 045501 (2008)
(N. A. D Khattak, Zahoor Ahmad, M. Zakaullah and G. Murtaza)

73. Plasma characterization for nitridation of aluminum alloy using 50 Hz ac discharge
74. Synthesis of Zirconium Oxynitride (ZrON) Nanocomposite Films on Zirconium substrate by Dense Plasma Focus Device
(I.A. Khan, M. Hassan, R. Ahmad, G. Murtaza, M. Zakaullah, R.R. Rawat and P. Lee)

75. Dust-lower-hybrid waves in quantum plasmas
(M. Salimullah, I. Zeba, Ch. Uzma, H.A. Shah and G. Murtaza)

76. Two Types of lower hybrid waves in dusty plasmas and cusp solitons,
(Z. Ehsan, N. L. Tsintsadze, G. Murtaza and H. A. Shah)

77. Jeans instability in a quantum dusty magnetoplasma
(M. Salimullah, M. Jamil, H. A. Shah, and G. Murtaza)

78. Non linear Landau damping of transverse electromagnetic waves in dusty plasmas
Physics of Plasmas 16, 1 (2009)
(N. L. Tsintsadze, Rozina Chaudhary, H. A. Shah and G. Murtaza)

79. Dense plasma focus ion based titanium nitride coating on titanium
(M. Hassan, A. Qayyum, R. Ahmad, R.S. Rawat, P. Lee, S.M. Hassan, G. Murtaza and M. Zakaullah)

80. Modified Debye screening potential in a magnetized quantum plasma
Physics Letters A 373, 2577 (2009)
(M. Salimullah, A. Hussain, I. Sara, G. Murtaza and H.A. Shah)

Conference Proceedings/Presentations

81. Acoustic modes in dusty plasmas
(G. Murtaza, M. H. Nasim and Arshad M. Mirza)

82. Shielding of dust test charges in a multi-component dusty plasma
(G. Murtaza, M. H. Nasim and Arshad M. Mirza)

83. Variation of deuterium focus plasma electron temperature with pressure and its correlation with neutron emission
(M. Zakaullah, Khalid Alamgir, Ather Rasool, M. Shafiq, G. Murtaza and A. Waheed)

84. Characteristics of X-rays from argon plasma focus
85. Wake-field Excitations in a Multi-component Dusty Plasma  

86. Energy loss of test charges in dusty plasma  

87. Staged Pinch as an Alternative Source of Thermonuclear Fusion  

88. Shielding of a Slowly moving Test Particle in a Multicomponent Dusty Plasma  

89. Operation of Plasma Focus for tailoring Cu-K line radiation,  

90. Magnetohydrodynamics (MHD) Model for the staged pinch plasma to study fusion parameters  

91. Quark Gluon Plasma  

92. Dusty Plasmas  

93. Formation of Counter-Rotating Vortices with Sheared Ion-Flows in the Earth’s Auroral F-Region of the Plasma  

94. Quadrupolar vortex Formation due to Nonlinearly Interacting ITG Driven Modes  

95. Non-Maxwellian Distribution Function in Space Plasma
96. Quark-gluon plasma-Visiting the Early Universe
(G. Murtaza and Usman Saleem)

97. Quadrupolar Vortices in ITG-Driven Modes of Tokamak Plasmas
(Arshad M. Mirza, Anisa Qamar, G. Murtaza, J. Vranješ and P. H. Sakanaka)

98. Some Electrostatic Modes based on non-Maxwellian Distribution Functions
(Sadia Z. and G. Murtaza)
Poster presented at the “Autumn College on Plasma Physics Trieste Italy (5-30 September 2005)”

99. Dust charge fluctuations with non-Maxwellian distribution functions
(N. Rubab and G. Murtaza)
Poster presented at the “Autumn College on Plasma Physics Trieste Italy (5-30 September 2005)”

100. QGP – An Exotic Example of Plasma State
Invited talk at the 12th Regional Conference on Mathematical Physics
March 27 – April 1, 2006 at Islamabad.
(G. Murtaza)

101. Color Collective Modes and Linear Landau Damping in a Quark-Gluon Plasma
(G. Murtaza)

102. Quark Gluon Plasma
Invited talk at the Workshop/Meeting On Fusion Research 16-18 June 2006
In Bangkok (in conjunction with 21st Executive Council Meeting of AAAPT)
(G. Murtaza)

103. Generation of Vortex rings by nonstationary laser wave field.
(Nodar Tsintsadze, G. Murtaza and H. A. Shah)

104. A specific property of EM waves interacting with dust-laden plasma
(Nodar Tsintsadze, Z. Ehsan, H. A. Shah and G. Murtaza)

105. Invited talk: "Adiabatic model for dust atoms and molecules ", 12th Regional Conference on Mathematical Physics, March 27-April 1, 2006, National Centre for Physics Islamabad, Pakistan.
(Z. Ehsan, G. Murtaza and N. L. Tsintsadze)

106. A new representation of interaction of EMWs with dusty plasma", Workshop on Cheap Plasma Technology in Industry, Environment and Medicine, 10-15 November (2007),
107. Weibel Instability in Maxwellian and Semi- relativistic Maxwellian Magneto- Plasmas. ,
11th National Symposium in Frontier on Physics, GC University, Lahore 29-31, January 2009.
(G. Murtaza and Sadia Zaheer).

108. A new property of electromagnetic wave interacting with dust-laden plasma
10.1109/PLASMA.2008.4591022
(Z. Ehsan, N. L. Tsintsadze, H. A. Shah and G. Murtaza.).

109. High Frequency Electromagnetic Waves across the ambient magnetic field in plasmas
with different particle velocity distributions
(Revisiting X-mode, O-mode and Weibel Instability in different plasma scenarios)
First NCP Scientific Spring 2009 (6-9 April 2009)
(G. Murtaza et al)