



Kharazmi University

Faculty of Physics

Curriculum Vitae



Hassan Mehdian

Scientific Position: **Professr of Physics**

Address: **Faculty of Physics, Kharazmi University, P.O.Box 15614, Tehran, Iran**

Phone: **+982188309294**

Fax:**+982188309294**

Email: **mehdian@khu.ac.ir**

Education

Ph.D.: Physics, Department of Physics, The university of Missouri, Columbia, USA

M.Sc.: Physics, Department of Physics, The university of Missouri, Columbia, USA

B.Sc.: Physics, Department of Physics, Kharazmi (Tarbiat Moallem) University, Tehran, Iran

Honors

- Top student in B.sc program.
- Distinguished Researcher 2000- 2001- 2002
- Editorial Board of Journal of science.
- Top teacher of the university of kharazmi in 1998.

Responsibilities

- President of Kharazmi university.
- Vice-President for Academic Affairs in Tarbiat Modares university.
- Vice-President for Student Affairs in Tarbiat Modares university
- Vice-President for Academic Affairs in Kharazmi university.
- Member of Audit Board of Kharazmi university.
- Head of Physics Departement.
- Head of Institute of plasma in Kharazmi university.

Research Interests

Plasma Physics, Free electron laser, Dusty Plasma , Stability of Charged particle Beams

Teaching

Bs.c courses

- General Physics I.II & III.
- Quantum Mechanics I & II.
- Mathematical Physics I & II.
- Classical Mechanics I & II.
- Electromagnetism I & II.
- Plasma Physics.

Ms.c courses

- Advanced Quantum Mechanics I & II.
- Advanced Classical Mechanics.
- Plasma physics.
- Electrodynamics I & II.
- Special topics.

Ph.D courses

- Advanced plasma physics I & II.
- Free electron laser.
- Non-neutral plasma physics I & II.
- Physics of Laser-plasma interaction.
- Quantum plasma physics.
- Special topics.

Books

1. Mathematical Physics.
2. Introduction to Plasma Physics (Translation).



Papers (refereed)

2016

95. Magnetorotational instability of weakly ionized and magnetized electron-positron-ion plasma

H Mehdiyan, K Hajisharifi, F Azadnia, S Tajik-Nezhad

Physics of Plasmas (1994-present) 23 (10), 102903

94. Nonlinear absorption of short intense laser pulse in multispecies plasma

A Kargarian, K Hajisharifi, H Mehdian

Physics of Plasmas (1994-present) 23 (8), 082116

93. Magnetic measurement based methods in determination of plasma equilibrium parameters in Damavand tokamak

E Noori, Y Sadeghi, H Mehdian

Journal of Instrumentation 11 (06), P06015.

92. Kinetic description of free electron laser with electromagnetic-wave wiggler and ion-channel guiding by using Einstein coefficient technique

Laser Physics **26** (4), 045003 (2016)

91. Tunable Faraday effect in one-dimensional photonic crystals doped by plasma

Optik - International Journal for Light and Electron Optics, **127**, 3895 (2016)

2015

90. Magneto-optical properties of one-dimensional conjugated photonic crystal heterojunctions containing plasma layers.

H. Mehdian, Z. Mohammadzahery, A. Hasanbeigi. Applied optics 54 (26), 7949-7956 (2015)

89. Semi-analytic approach for determination of poloidal beta limits using plasma internal inductance in Damavand tokamak

E. Noori, Y. Sadeghi, H. Mehdian

Physica Scripta 90 (10), 105604 (2015)

88. The general dispersion relation of induced streaming instabilities in quantum outflow systems

H. Mehdian, K. Hajisharifi, A. Hasanbeigi

AIP Advances 5 (11), 117236 (2015)

87. Numerical study of electron acceleration by plasma wave in an ion channel under obliquely applied magnetic field

H. Mehdian, A. Kargarian, A. Hasanbeigi

Optik-International Journal for Light and Electron Optics 126 (21), 3299-3302 (2015)

86. Enhancement of terahertz radiation power from a prebunched electron beam using helical wiggler and ion-channel guiding

A. Hasanbeigi, H. Mehdian, P. Gomar

Physics of Plasmas (1994-present) 22 (12), 123116 (2015)

85. Optical and magneto-optical properties of plasma-magnetic metamaterials

H. Mehdian, Z. Mohammadzahery, A. Hasanbeigi

Journal of Physics D: Applied Physics 48 (30), 305101(2015)

84. A relativistic pic model of nonlinear laser absorption in a finite size plasma with arbitrary mass and density ration

H. Mehdian, A. Kargarian, A. Hasanbeigi, K. Hajisharifi

Laser and Particle Beams 33 (04), 647-654 (2015)

83. Kinetic (PIC) simulation of nonlinear laser absorption in a finite-size plasma with a background inhomogeneous magnetic field

H. Mehdian, A. Kargarian, K. Hajisharifi

physics of plasma,22, 063102 (2015)

82. Induced maximum magnetic field in cosmic outflows system by Relativistic current filamentation instability: Exact analytical model

H. Mehdian, K. Hajisharifi, A. Hasanbeigi

The Astrophysical Journal 801 (2), 89 (2015)

2014 and before

81. Inertial confinement fusion based on the ion-bubble trigger

S Jafari, M Nilkar, A Ghasemizad, H Mehdian

Physics of Plasmas (1994-present) 21 (10), 104503 (2014)

80. A Spatiotemporal study of the relativistic nonlinear effects on laser absorption by a finite-size magnetoplasma

H Mehdian, A Kargarian, K Hajisharifi, A Hasanbeigi

The European Physical Journal D 68 (12), 1-7 (2014)

79. Spatiotemporal evolution of a thin plasma foil with Kappa distribution

H.mehdian, A. Kargarian, K.hajisharifi

Laser and Particle Beams 32 (04), 523-529

78. The effect of plasma background on the instability of two non-parallel quantum plasma shells in whole K space

H Mehdian, K Hajisharifi, A Hasanbeigi

Physics of Plasmas (1994-present) 21 (7), 072106

77. Electron acceleration in an ion channel by a magnetized plasma wave

A Kargarian, H Mehdian, A Hasanbeigi

76. Filamentation instability of electron/ion beams in magnetized plasma waveguide

A Hasanbeigi, S Moghani, S Azimi, H Mehdian
Journal of Plasma Physics 80 (01), 81-87

75. Linear theory of quantum two-stream instability in a magnetized plasma with a transverse wiggler magnetic field

A Hasanbeigi, S Moghani, H Mehdian
Laser and Particle Beams, 1-6

74. The effect of magnetic field on bistability in 1D photonic crystal doped by magnetized plasma and coupled nonlinear defects

H Mehdian, Z Mohammadzahery, A Hasanbeigi
Physics of Plasmas (1994-present) 21 (1), 012101

73. Quantum instability of two non-parallel flows: Parallel wave propagation

H Mehdian, K Hajisharifi, A Hasanbeigi
Physics Letters A 377 (34), 2083-2088

72. Filamentation instability of a laser beam in an inhomogeneous plasma in an arbitrarily oriented external magnetic field

A Hasanbeigi, A Mousavi, H Mehdian
Journal of Plasma Physics 79 (05), 921-926

71. Kinetic description of a wiggler-pumped ion-channel free-electron laser by applying the Einstein coefficient technique

A Hasanbeigi, S Abasirostami, H Mehdian
Journal of Plasma Physics 79 (05), 853-857

70. Free-electron laser with a plasma wave wiggler propagating through a magnetized plasma channel

S Jafari, F Jafarinia, H Mehdian
Laser Physics 23 (8), 085005

69. The instability of two non-parallel plasma shells in quantum plasma

H Mehdian, A Hasanbeigi, K Hajisharifi
Astrophysics and Space Science 346 (2), 421-430

68. Dispersion relation and growth rate for a corrugated channel free-electron laser with a helical wiggler pump

A Hasanbeigi, H Mehdian
Chinese Physics B 22 (7), 075205

67. Investigation of the electron trajectories and gain regimes of the whistler pumped free-electron laser
F Jafarina, S Jafari, H Mehdian
Physics of Plasmas (1994-present) 20 (4), 043106

66. Analysis of plasma-magnetic photonic crystal with a tunable band gap
H Mehdian, Z Mohammadzahery, A Hasanbeigi
Physics of Plasmas (1994-present) 20 (4), 043505

65. The Solution of the Spherical Raman–Nath Equation for Free-Electron Laser in the Presence of Ion-Channel Guiding
M Alimohamadi, H Mehdian, A Hasanbeigi
Journal of fusion energy 31 (5), 463-466

64. Quantum statistical properties of free-electron laser with ion-channel guiding
H Mehdian, M Alimohamadi, A Hasanbeigi
Journal of Plasma Physics 78 (05), 537-544

63. Filamentation instability of quantum magnetized plasma in the presence of an external periodic magnetic field
A Hasanbeigi, N Saberi, H Mehdian
Physics of Plasmas (1994-present) 19 (4), 042112

62. Linear theory of magnetized ion-channel free-electron laser
S Sadegzadeh, A Hasanbeigi, H Mehdian, M Alimohamadi
Physics of Plasmas (1994-present) 19 (2), 023108

61. Comparison of self-fields effects in two-stream electromagnetically pumped FEL with ion-channel guiding and axial magnetic field
S Saviz, H Mehdian, FM Aghamir, M Ghorannevis, AA Ashkarran
Journal of Plasma Physics 77 (06), 765-776

60. Investigation of betatron instability in a wiggler pumped ion-channel free electron laser
A Raghavi, H Mehdian
Plasma Physics and Controlled Fusion 53 (10), 105010

59. Gain calculation of a free-electron laser operating with a non-uniform ion-channel guide

A Hasanbeigi, H Mehdian, S Jafari
Chinese Physics B 20 (9), 094103

58. Effects of self-fields on electron trajectory and gain in two-stream
electromagnetically pumped free-electron laser with ion channel guiding
S Saviz, FM Aghamir, H Mehdian, M Ghorannevis
Chinese Physics B 20 (7), 074101

57. Controlling chaotic behavior of the equilibrium electrons by simultaneous
using of two guiding fields in a free-electron laser with an electromagnetic-wave
wiggler
N Nasr, H Mehdian, A Hasanbeigi
Physics of Plasmas (1994-present) 18 (4), 043104

56. Self-field effects on small-signal gain in two-stage free-electron lasers
S Jafari, H Mehdian, A Hasanbeigi
Pramana 76 (3), 489-500

55. Kinetic description of self-field effects on laser and betatron emission in
wiggler-pumped ion-channel free electron lasers
M Alimohamadi, H Mehdian, A Hasanbeigi
Physica Scripta 83 (3), 035401

54. High-Power Microwave Generation by a Periodic Focusing Quadrupole
Transport System
H Mehdian, S Jafari, A Hasanbeigi
Plasma Science, IEEE Transactions on 39 (2), 761-768

53. Generation of stimulated emission from a relativistic beam by magnetized
dusty plasma crystals (DPCs)
H Mehdian, S Jafari, A Hasanbeigi
Plasma Physics and Controlled Fusion 52 (5), 055005

52. Effect of the Electron-Beam Self-Fields on Gain in an Optical Wiggler
Pumped Free-Electron Laser
A Hasanbeigi, H Mehdian, S Jafari
Contributions to Plasma Physics 50 (2), 156-164

51. Free-electron laser harmonic generation in an electromagnetic-wave wiggler
and ion channel guiding

H Mehdian, A Hasanbeigi, S Jafari
Physics of Plasmas (1994-present) 17 (2), 023112

50. Gain enhancement in two-stream electromagnetically pumped free electron laser with ion-channel guiding

S Saviz, H Mehdian

Canadian Journal of Physics 88 (1), 15-28

49. The effects of self-fields on the electron trajectory and gain in a two-stream electromagnetically pumped free-electron laser with axial guiding field

H Mehdian, S Saviz

Chinese Physics B 19 (1), 014214

48. Electron trajectory and growth rate in two-stream electromagnetically pumped free-electron lasers with ion-channel guiding

H Mehdian, S Saviz

Physica Scripta 80 (4), 045401

47. Free-electron lasers with magnetized ion-wiggler

H Mehdian, S Jafari, A Hasanbeigi, F Ebrahimi

Nuclear Instruments and Methods in Physics Research Section A: Accelerators ...

46. Self-fields in a free-electron laser with electromagnetic-wave wiggler and ion-channel guiding

H Mehdian, A Hasanbeigi, S Jafari

Physics of Plasmas (1994-present) 15 (12), 123101

45. Electron trajectory and growth rate in a two-stream electromagnetically pumped free electron laser and axial guide field

H Mehdian, S Saviz

Physics of Plasmas (1994-present) 15 (9), 093103

44. Steady-state electron trajectories and growth rate in electromagnetically pumped free-electron laser with specific nonuniform magnetic field

H Mehdian, S Jafari, A Hasanbeigi

Physics of Plasmas (1994-present) 15 (7), 073102

43. Dispersion relation and growth rate in electromagnetically pumped free-electron lasers with ion-channel guiding

H Mehdian, A Hasanbeigi, S Jafari

Physics of Plasmas (1994-present) 15 (7), 073103

42. Effects of ion-channel guiding on the saturation mechanism of a single-pass free-electron laser

A Raghavi, G De Ninno, H Mehdian

Nuclear Instruments and Methods in Physics Research Section A: Accelerators ...

41. A comparison between electron orbits for both an axial magnetic field and an ion-channel guiding in a FEL with an electromagnetic wave wiggler

H Mehdian, S Jafari

Journal of Plasma Physics 74 (02), 187-196

40. Two-stream instability in free electron lasers with a planar wiggler and an axial guide magnetic field

H Mehdian, S Saviz, A Hasanbeigi

Physics of Plasmas (1994-present) 15 (4), 043103

39. Dispersion relation and growth in a two-stream free electron laser with helical wiggler and ion channel guiding

H Mehdian, N Abbasi

Physics of Plasmas (1994-present) 15 (1), 013111

38. Dispersion relation for azimuthal electromagnetic surface waves on a magnetized annular plasma in a metal waveguide with coaxial anisotropic dielectric inner coating

S Daryanoosh, H Mehdian

Journal of Plasma Physics 73 (06), 839-855

37. Kinetic description of a planar wiggler free electron laser with ion-channel guiding

H Mehdian, N Abbasi

Plasma Physics and Controlled Fusion 49 (12), 2051

36. Dispersion relation and growth rate for a high gain ion-channel FEL with a helical wiggler pump

H Mehdian, A Raghavi

Plasma Physics and Controlled Fusion 49 (1), 69

35. Chaotic Electron Trajectories in a Planar Wiggler Free-Electron Laser
A Soleyman, H Mehdian
ACTA PHYSICA POLONICA SERIES A 110 (4), 459

34. Kinetic description of a wiggler pumped ion-channel free electron laser
H Mehdian, A Raghavi
Plasma physics and controlled fusion 48 (7), 991

33. PLASMA DIAGNOSTIC MEASUREMENTS, TECHNIQUES AND ANALYSIS
AV Surkov, H Mehdian, A Raghavi
Plasma physics and controlled fusion 48, 899

32. The Effect of Ion-Channel Guiding on the Chaotic Electron Trajectories in a Free Electron Laser
S Saviz, H Mehdian
Acta Physica Polonica A 107 (6), 895-906

31. Dispersion relation of azimuthal electromagnetic surface waves on a magnetized plasma column in a dielectric lined slow-wave waveguide
B Jazi, H Mehdian
Plasma physics and controlled fusion 46 (3), 507

30. Electron trajectories in a free-electron laser with helical wiggler, ion-channel guiding, and parallel/reversed axial magnetic field
M Esmaeilzadeh, H Mehdian, JE Willett
Journal of plasma physics 70 (01), 9-24

29. Self-fields in a free-electron laser with helical wiggler and ion-channel guiding
M Esmaeilzadeh, H Mehdian, JE Willett, YM Aktas
Physics of Plasmas (1994-present) 10 (3), 905-907

28. Self-Fields in a Free-Electron Laser with Ion-Channel Guiding
Y Aktas, JE Willett, H Mehdian, M Esmaeilzadeh
APS Meeting Abstracts 1, 1075P

27. Dispersion relation and growth in a free-electron laser with planar wiggler and in-channel guiding
UH Hwang, H Mehdian, JE Willett, YM Aktas

Physics of Plasmas (1994-present) 9 (3), 1010-1014

26. Gain in a free-electron laser with planar wiggler and ion-channel guiding

M Esmaeilzadeh, H Mehdian, JE Willett

Physics of Plasmas (1994-present) 9 (2), 670-677

25. Gain equation for a free-electron laser with a helical wiggler and ion-channel guiding

M Esmaeilzadeh, H Mehdian, JE Willett

Physical Review E 65 (1), 016501

24. Free-Electron Laser with Ion-Channel Guiding

Y Aktas, JE Willett, UH Hwang, H Mehdian

APS Meeting Abstracts 1, 1105P

23. Electron trajectories in a free-electron laser with planar wiggler and ion-channel guiding

H Mehdian, M Esmelzadeh, JE Willett

Physics of Plasmas (1994-present) 8 (8), 3776-3780

22. Wiggler-field effects on the space-charge waves of a Raman free-electron laser

B Maraghechi, B Farrokhi, JE Willett, B Bolon, H Mehdian

Physical Review E 60 (2), 2264

21. Wave Propagation in a Raman Free-Electron laser

Y Aktas, JE Willett, B Maraghechi, B Farrokhi, H Mehdian

APS Division of Plasma Physics Meeting Abstracts 1

20. Effects of wiggler and axial guide fields on wave propagation in a free-electron laser

H Mehdian, JE Willett, Y Aktas

Physics of Plasmas (1994-present) 5 (11), 4079-4083

19. Space-charge waves in the wiggler field of a Raman free-electron laser

JE Willett, B Bolon, Y Aktas, H Mehdian

Physical Review E 57 (6), 7169

18. Electrostatic beam modes in a free-electron laser with a coaxial wiggler

JE Willett, UH Hwang, Y Aktas, H Mehdian

Physical Review E 57 (2), 2262

-
17. Space-charge waves in a coaxial plasma waveguide
UH Hwang, JE Willett, H Mehdian
Physics of Plasmas (1994-present) 5 (1), 273-278
-
16. Space-Charge Waves in Raman Free-Electron Lasers
YM Aktas, JE Willett, B Bolon, UH Hwang, H Mehdian
APS Meeting Abstracts 1
-
15. Free electron laser with longitudinal wiggler and finite magnetic field in a partially filled waveguide
H Mehdian, JE Willett, B Maraghechi, Y Aktas
Physics of Plasmas (1994-present) 3 (3), 1130-1136
-
14. Excitation of a transverse magnetic waveguide mode near cutoff in a free-electron laser
JE Willett, Y Aktas, H Mehdian
Physics of Plasmas (1994-present) 2 (4), 1311-1315
-
13. High-frequency waves in a plasma waveguide
B Maraghechi, JE Willett, H Mehdian, Y Aktas
Physics of Plasmas (1994-present) 1 (10), 3181-3188
-
12. Stimulated Raman scattering of an EH waveguide mode near cyclotron resonance
JE Willett, Y Aktas, B Maraghechi, H Mehdian
Physical Review E 49 (5), 4739
-
11. Magnetic field effects in a free electron laser with longitudinal electric wiggler
JE Willett, Y Aktas, B Maraghechi, H Mehdian
Journal of Physics D: Applied Physics 27 (2), 211
-
10. Relativistic free-electron generator of space-charge waves
B Maraghechi, H Mehdian, JE Willett, Y Aktas
Journal of Physics D: Applied Physics 26 (1), 9
-
9. Free electron laser with longitudinal electric field and axial magnetic field
B Maraghechi, JE Willett, H Mehdian
-

-
8. Free-electron laser with longitudinal wiggler in a waveguide partially filled with a relativistic electron beam
H Mehdian, UH Hwang, JE Willett
Journal of applied physics 70 (1), 517-519

 7. Free electron laser with longitudinal electric wiggler
JE Willett, P Uddholm, S Bilikmen, H Mehdian
Journal of Physics D: Applied Physics 23 (10), 1290

 6. Wave generation in a waveguide partially filled with a relativistic electron beam
H Un-Hak

 5. Lower-hybrid instability in current-carrying plasmas
JE Willett, H Mehdian
Journal of Plasma Physics 28 (03), 527-537

 4. Effects of collisions on current-driven ion-electrostatic waves
JE Willett, H Mehdian
Physics Letters A 86 (3), 145-148

 3. Ion-electrostatic instabilities in current-carrying magnetized plasmas
JE Willett, H Mehdian
Journal of Applied Physics 52 (10), 6078-6083

 2. Electrostatic Waves in Current-Carrying Plasma.
H Mehdian

 1. Resistive instabilities in current-carrying magnetized plasmas
JE Willett, H Mehdian
Physics Letters A 80 (4), 263-265
-

List of papers presented in conferences

[1] Y Aktas, JE Willett, H Mehdian, M Esmailzadeh, Self-Fields in a Free-Electron Laser with Ion-Channel Guiding, American Physical Society, 44th Annual Meeting of the the Division of Plasma, (2002)

[2] Y. Aktas, J.E. Willett, U.H. Hwang, H. Mehdian, Free-Electron Laser with Ion-Channel Guiding, American Physical Society, 43rd Annual Meeting of the APS Division of Plasma Physics October 29 - November 2, 2001 Long Beach, California, abstract #FP1.105.

[3] Comparison of the Orbit Groups for both Dusty Plasma Crystal (DPCs) and Wiggler Pumped, Free Electron Laser (FEL)

33st International Free Electron Laser Conference SHANGHI, CHINA (2011)

[4] Gain of quantum free electron laser with axial magnetic field
The 4th International Workshop on Plasma Science and Applications, 2011, Tehran, Iran

[5] Two stream filamentation instability in a quantum magnetized plasma
The 4th International Workshop on Plasma Science and Applications, 2011, Tehran, Iran

[6] Influence of free-electron laser parameters and axial magnetic field on the growth rate
The 4th International Workshop on Plasma Science and Applications, 2011, Tehran, Iran

[7] Electron trajectories of a wiggler pumped free-electron laser with axial magnetic field and ion-channel guiding
The 4th International Workshop on Plasma Science and Applications, 2011, Tehran, Iran

[8] Growth rate of jeans instability in quantum dusty plasma

Proceedings of annual physics conference of Iran, Urmia University, 1634-1636, September 2011

[9] Investigation of the electron orbits in a dusty plasma free electron laser

Proceedings of annual physics conference of Iran, Urmia University, 1272-1275, September 2011

[10] Electron trajectories in Free electron laser with an elliptically polarized static wiggler field

Proceedings of annual physics conference of Iran, Urmia University, 1285-1288, September 2011

[11] Guiding Effects on Electron Trajectories in an Electromagnetically Pumped Free Electron Laser

31st International Free Electron Laser Conference, BT Convention Centre, Liverpool, UK (2009)

[12] Comparison of the Orbit Groups for both Dusty Plasma Crystal (DPCs) and Wiggler Pumped, Free Electron Laser (FEL)

33st International Free Electron Laser Conference, SHANGHI, CHINA (2011)

[13] Influence of free-electron laser parameters and axial magnetic field on the growth rate

The 4th International Workshop on Plasma Science and Applications, 2011, Tehran, Iran

[14] Numerical investigation of electron acceleration by plasma wave in the presence of non-uniform magnetic field

The 4th International Workshop on Plasma Science and Applications, 2011, Tehran, Iran

[15] Dispersion relation of low frequency Alfvén waves in cold quantum magnetoplasma

Proceedings of Annual Physics Conference of Iran, yazd, 2519-2522,(2012)

[16] The effect of various parameters on the filamentation instability in a relativistic magnetized plasma

Proceedings of Annual Physics Conference of Iran, yazd, 2527-2730,(2012)

[17] Effects of density of particles on longitudinal two stream instabilities

Proceedings of Annual Physics Conference of Iran, yazd, 2519-2522 (2012)

[18] Growth rate of Farley-Buneman instability in dusty plasmas

Proceedings of Annual Physics Conference of Iran, yazd, 2474-2477 (2012)

[19] The Influence of Electron Beam Radius on Free Electron Laser instability with Longitudinal Magnetic Wiggler

M Bahmani, A Hasanbeigi, H Hamzhepour

Proceedings of Annual Physics Conference of Iran, 2447-2450 (2012)

[20] Dispersion relation of Raman FEL with helical Wiggler and ion channel

M Bahmani, A Hasanbeigi

Proceedings of Annual Physics Conference of Iran, yazd, 440-444 (2012)

[21] Numerical study of electron acceleration by a magnetized Plasma wave

A kargarian, H Mehdian, A Hasanbeigi

Conference on Computational Physics (CCP2012) 454, 011001 (2012)

[22] Numerical study of electron acceleration by a magnetized Plasma wave

A kargarian, H Mehdian, A Hasanbeigi

Conference on Computational Physics (CCP2012) 454, 011001 (2012)

[23] The effect of drift space length on the Terahertz radiation in a helical wiggler

P Gomar, A Hasanbeigi, H Mehdian

The 3th confence of engeneering and physics of plasmas, 461-464 (2012)

[24] Maximum magnetic field in cosmic outflows systems

K Hajisharifi, H Mehdian, A Hasanbeigi

Plasma Sciences (ICOPS), 2015 IEEE International Conference on, 1-1 (2012)

Thesis Supervision

Title	Advisor of Phd Student	Graduated
Investigation of instability for non-parallel plasma flows	Kamal Hajisharifi	2015
The effect of the plasma on the wave propagation in the magneto-photonic crystals	Zahra MohamadZahery	2015
An Investigation on Plasma Characteristics Effects on the Plasma Antenna Radiation Patterns	N. Nasr	-
Title	Msc Student	Graduated
Kinetic Description of Free-Electron Laser Gain using the Einstein Coefficient Method	S. ABASI ROSTAMI	January 27, 2013
Free electron laser with circular waveguide	E. TAGHIPOUR	January 27, 2013
Filamentation Instability of Electromagnetic wave in magnetized plasma	M. RAHPEIMA	March 10, 2013
Particle Simulation of Free-Electron Laser via FDTD	R. FARAJI	March 13, 2013.
Vlasov description of free electron laser with helical wiggler	Mohammad Bahmani	February 2013.
The effect of wiggler harmonics on the growth rate of free electron laser	AmirHosein. KIYAN	March 11, 2014
Relativistic electron beam interaction in quantum plasma"	Esmat NOORI	March 9, 2014 .
The effect of ion-beam on the excitation of waves in plasma waveguide	Keyvan Feyzi	Sep 20, 2014.
Streaming instability in a bounded dusty plasma	Noushin Ghaem	Sep 21, 2014.
Wave amplifying by relativistic electron beam in an electrostatic system with sinusoidal-ripple bounday	Maryam Salehi	Sep 8, 2014.
The effect of a laser bunched relativistic electron beam in radiation of wave in FEL	Peyman Gomar	Sep 21, 2014
, "Decreasing Energy loss in a plasma filled waveguide"	Zahra Golabgir	Sep 21, 2014.
"Surface waves in magnetized quantum electron-positron plasmas" Msc, 2014.	Pouria Mirsadegh	2014
"Decreasing Energy loss in a plasma filled waveguide"	Zahra Golabgir	Sep 21, 2014.
"Dispersion relation and growth rates of three wave interaction in circular plasma waveguide	Tahereh Moradi	2015
, "Electron acceleration by magnetized plasma channel", Msc, 2015.	S. M. Mousavi	2015
, "Dispersion relation of electromagnetic wave in the interaction of relativistic electron beam with dielectric waveguide"	Ali Reza Rostami	2015
"Surface waves in magnetized quantum electron-positron plasmas" Msc, 2014.	Pouria Mirsadegh	2014
"Decreasing Energy loss in a plasma filled waveguide"	Zahra Golabgir	Sep 21, 2014.

