Curriculum Vitae

❖ Personal Information .

Davood komaizi

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  d_komaizi@sbu.ac.ir

❖ Education .

- ✓ 2018-2022(expected) : PhD candidate of plasma engineering , plasma modeling and simulation group (PMS), Laser and Plasma Research Institute (LAPRI), Shahid Beheshti University, Tehran, Iran
- ✓ *2008-2011:* M.Sc of plasma engineering, Laser and Plasma Research Institute (LAPRI), Shahid Beheshti University, Tehran, Iran (included thesis grade: 20/20)
- ✓ *2003-2007:* B.Sc of Applied Physics, Islamic Azad University of Arak, Arak, Iran

❖ Research Interests .

- ✓ Laser-Plasma interactions
- ✓ Plasma Instabilities
- ✓ Plasma Diagnostics
- ✓ Plasma discharges
- ✓ Computational Physics
- ✓ Particle In Cell simulation method
- ✓ MHD/CFD simulation methods

❖ Publications .

- ✓ A. R. Niknam, D. Komaizi, and M. Hashemzadeh, "Simulation of low frequency Buneman instability of a current-driven plasma by particle in cell method", *PHYSICS OF PLASMAS 18, 022301 (2011).*
- ✓ A. R. Niknam, P. S. Mostafavi, D. Komaizi, and M. Salahshoor, "Simulation of filamentation instability of a current-carrying Plasma by particle in cell method", *PHYSICS OF PLASMAS 19, 082119 (2012).*
- ✓ M. Salahshoor, A. R. Niknam, P. S. Mostafavi, D. Komaizi, "Effects of electron temperature and ion neutral collisions on the filaments coalescence in current-carrying plasma", Plasma Conference, ICTP, (2012).
- ✓ M. Hashemzadeh, A.R. Niknam, and D. Komaizi, "PIC Simulation of Current-Driven Buneman Instability in Presence of Collisional and Thermal Effects" Contrib. Plasma Phys. 53, No.X, 1 – 8 (2013) / DOI 10.1002/ctpp.201300029.
- ✓ M. Hashemzadeh, A. R. Niknam, D. Komaizi, "PIC simulation of relativistic Buneman instability in a current carrying plasma", Waves in Random and Complex Media, (2013).
- ✓ A. R. Niknam, H. Roozbani, M. Hashemzadeh, and D. Komaizi, "Particle in cell simulations of Buneman instability of a current-driven plasma with q-nonextensive electron velocity distribution", PHYSICS OF PLASMAS 21, 092307 (2014).
- ✓ Moghadasin Hoda, Bagheri Fateme, Komaizi Davood, Niknam Alireza, "Study of plasma gratings induced by two counter propagating laser pulses", 2nd Plasma Engineering and Physics Conference, University Of Mazandaran, Babolsar, May (2014).
- ✓ Moghadasin Hoda, Niknam Alireza, Komaizi Davood, Banjafar Mohammadreza, "Attosecond pulse generation by relativistic flying mirrors in laser-plasma interaction: effect of plasma density and driver amplitude on the generated pulse" PHYSICS OF PLASMAS, (2019).
- ✓ Moghadasin Hoda, Niknam Alireza, Komaizi Davood, "Influence of flying mirror features and time delay between two counterpropagating laser pulses on the generated attosecond pulse intensity in near-critical density plasmas" AIP Advances, (2020).

❖ Projects .

- ✓ Matlab7.9 Programming and simulation certification from Iran Technical and Vocational Training Organization (VTO) with score 94/100.
- ✓ Programmable Logic Controllers (PLC) certification from Iran Technical and Vocational Training Organization (VTO) with score 80/100.
- ✓ Participating in 9th IPM-HPC Workshop on Multi-core Systems-GPU Programming held at the Institute for Research in Fundamental Sciences (IPM), Tehran, Iran.
- ✓ Worked on Ms.C thesis project "Nonlinear dynamics of Buneman instability in magnetized plasma" (plasma instabilities), under supervision of Prof. A. R. Niknam
- ✓ Working on PhD thesis project "Hybrid Finite Volume-Finite Element Simulation of Microwave-Induced plasma jet under atmospheric pressure and low temperature" ,under supervision of Prof. A. R. Niknam
- ✓ "Development of one and two dimensional parallel electrostatic particle in cell (PIC) simulation code (LAPRIC) to simulate plasma instabilities"
- ✓ "Development of one and two dimensional parallel electromagnetic particle in cell (PIC) simulation code (LAPRIC) to simulate laser-plasma interaction for acceleration and ultra short pulse generation "
- ✓ "Development of a two dimensional electrostatic PIC-FEM code to simulate microwave amplifiers"
- ✓ "Developing a two dimensional CFD code based on finite volume and finite element methods to simulate plasma jets"

❖ Teaching Experiments .

- ✓ Teacher Assistant (TA) in "Numerical Methods in Electromagnetism" course, Laser and Plasma Research Institute (LAPRI), Tehran, under supervision of Dr. A. R. Niknam, 2018-2019.
- ✓ Teacher Assistant (TA) in "Principles of Plasma Electrodynamics" course, Laser and Plasma Research Institute (LAPRI), Tehran, under supervision of Dr. B. Shokri, 2020-2021.

❖ Computer Skills .

- ✓ **Operating Systems**: Linux (Ubuntu), Windows.
- ✓ **Programming languages**: C++, C, C#, Python, CUDA, FORTRAN, MATLAB.

❖ Languages & Academic scores .

- ✓ Farsi : native language
- ✓ English :
  - ➢ TOEFL (IBT): 94 (9/8/2012)
  - ➢ MSRT: 71 (2019)
- ✓ GRE(Subject) : 830/990 (4/9/2011)

❖ References .

- ✓ **Dr. A. R. Niknam,** Professor of physics, head of Plasma Modeling and Simulation group(PMS), LAPRI, Shahid Beheshti University.
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