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EDUCATION

Ph.D. Nuclear physics, University of Tehran, 2006-2011

M.Sc. Nuclear physics, University of Kashan, 2004-2006

B.Sc. Applied physics, Isfahan University of Technology, 2000-2004

RESEARCH INTERESTS

- Thermodynamic properties of nuclear matter
- Evolution and structure of neutron stars

PUBLICATIONS

1. S. A. Ghaemmaghami and M. Ghazanfari Mojarrad, *Thermal effects on the baryon–quark phase transition in hot hybrid neutron stars: a statistical mean-field baryonic model with the standard NJL model for deconfined quarks*, The European Physical Journal Plus, Vol. 138(11), pp. 1, 2023.
2. S. A. Ghaemmaghami, M. R. Khoshi and M. Ghazanfari Mojarrad, *Influence of a phase-space extension of nuclear forces on the sharp baryon–quark phase transition in hybrid neutron stars*, The European Physical Journal Plus, Vol. 138(5), pp. 1, 2023.
3. N. S. Razavi and M. Ghazanfari Mojarrad, *Hot dense nuclear matter with the Thomas-Fermi approximation*, NUCLEAR PHYSICS A, Vol. 1029, pp. 122556, 2023.
4. S. A. Ghaemmaghami and M. Ghazanfari Mojarrad, *A statistical model for the thermodynamic instabilities of asymmetric nuclear matter*, European Physical Journal A, Vol. 58, pp. 255, 2022.
5. J. Ranjbar and M. Ghazanfari Mojarrad, *Hybrid neutron stars with the Thomas-Fermi approximation and nonlocal Nambu–Jona-Lasinio model*, Physical Review C, Vol. 104, pp. 045807, 2021.
6. M. Ghazanfari Mojarrad and J. Ranjbar, *Thomas–Fermi approximation in the phase transition of neutron star matter from β -stable nuclear matter to quark matter*, Annals of Physics, Vol. 412, pp. 168048, 2019.
7. M. Ghazanfari Mojarrad and J. Ranjbar, *Hybrid neutron stars in the Thomas-Fermi theory*, Physical Review C, Vol. 100, pp. 158041, 2019.

8. M. Ghazanfari Mojarrad and M. S. Fatemi, *Symmetry energy and symmetry free energy of asymmetric nuclear matter in the Thomas-Fermi Approximation*, Journal of Research on Many-body Systems, Vol. 9, pp. 124, 2019.
9. M. Ghazanfari Mojarrad ,& N.S. Razavi, *Proto-neutron stars in the Thomas-Fermi theory*, NUCLEAR PHYSICS A, Vol. 986, No. 3, pp. 113, 2019.
10. M. Ghazanfari Mojarrad, N. S. Razavi and S. Vaezzade, *Thomas-Fermi approximation for β -stable nuclear matter in the Landau Fermi-liquid theory*, NUCLEAR PHYSICS A, Vol. 980, pp. 51, 2018.
11. M. Ghazanfari Mojarrad and S. K. Mousavi Khoroshtomi, *Thomas-Fermi approximation for the equation of state of nuclear matter: A semi-classical approach from the Landau Fermi-Liquid theory*, International Journal of Modern Physics E, Vol. 26, pp. 1750038, 2017.
12. M. Ghazanfari Mojarrad and Mahdokht Minaee Bidgoli, *Explicit form of the nucleonic chemical potential in nuclear matter on the basis of Thomas-Fermi approximation*, Journal of Research on Many-body Systems, Vol. 7, pp. 153, 2017.
13. M. Ghazanfari Mojarrad and R. Arabsaeidi, *Hyperon-rich matter in a two-solar-mass neutron star within the Thomas-Fermi approximation*, International Journal of Modern Physics E, Vol. 25, pp. 1650102, 2016.
14. M. Ghazanfari Mojarrad, S. K. Mousavi Khoreshdami, A. Mostajeran, *Thomas-Fermi calculations for determination of critical properties of symmetric nuclear matter on the basis of extended effective mass approach*, Iranian Journal of Physics Research, Vol. 16, pp. 207, 2016.

15. H. R. Moshfegh and M. Ghazanfari Mojarrad, *Strange baryonic matter in the Thomas-Fermi theory*, European Physical Journal A, Vol. 49, pp. 1, 2013.
16. H. R. Moshfegh and M. Ghazanfari Mojarrad, *Thermal properties of baryonic matter*, Journal of Physics G: Nuclear and Particle Physics, Vol. 38, pp. 085102, 2011.

Ph. D students:

1. S. A. Ghaemmaghani, graduated.
2. J. Ranjbar, graduated.
3. N. S. Razavi, graduated.

M. Sc. students:

- 1- A. Lotfi, working.
- 2- M. R. Khoshi, graduated.
- 3- A. Sakhaee, graduated.
- 4- S. Alavandi Ashiani, graduated.
- 5- M. S. Fatemi, graduated.
- 6- M. Minaee Bidgoli, graduated.
- 7- S. K. Mousavi Khoreshtami, graduated.
- 8- S. Vaezzade, graduated.
- 9- A. Mostajeran Gurtani, graduated.
- 10- R. Arabsaeidi, graduated.

COURSES

- Advanced topics in nuclear physics
- Thermodynamics
- Statistical mechanics
- Nuclear physics
- Reactor physics
- Modern physics
- General physics