Majid Karimabadi

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Academic Background

Ph.D. in High Energy Physics – Hakim Sabzevari University
Thesis: Study of the Effects of Electromagnetic Field on the Evolution of Quark–Gluon Plasma with the Lattice QCD Parametrized Equation of State and Non-zero Magnetic Susceptibility
Supervisors: Dr. Ahmad Farzaneh Kord, Prof. Behnam Azadegan **M.Sc. in Particle Physics** – Hakim Sabzevari University
Thesis: Lorentz Invariance Violation, NC Space, and Gravitational Measurements
Supervisor: Dr. Seyyed Ali Asghar Alavi — Advisor: Dr. Davood Mahdavian Yekta
B.Sc. in Physics – Semnan University

Research Interests

- Black holes and quasi-normal modes
- Relativistic heavy-ion collisions and the quark–gluon plasma (QGP)
- Relativistic hydrodynamics and its applications in high-energy physics
- Non-commutative geometry and its physical implications

Selected Publications

1. Karimabadi, M., Alavi, S. A., & Yekta, D. M. (2020). Non-commutative effects on gravitational measurements. *Classical and Quantum Gravity, 37*(8), 085009.
2. Yekta, D. M., Alavi, S. A., & Karimabadi, M. (2021). Gravitational measurements in higher dimensions. *Galaxies, 9*(1), 4.
3. Yekta, D. M., Karimabadi, M., & Alavi, S. A. (2021). Quasinormal modes for non-minimally coupled scalar fields in regular black hole spacetimes. *Annals of Physics, 443*, 168603.
4. Karimabadi, M., Kord, A. F., & Azadegan, B. (2023). Transverse expansion of Bjorken flow in (1+1D) relativistic ideal-magnetohydrodynamics with magnetization. *Nuclear Physics A, 122748.*
5. Karimabadi, M., Kord, A. F., & Azadegan, B. (2025). Magnetized viscous conformal flow in heavy-ion collisions. *Eur. Phys. J. A, 61*, 22.
6. Karimabadi, M., Kord, A. F., & Azadegan, B. (2023). Expansion of (2+1)D relativistic ideal hydrodynamic flow. *Phys. Rev. D, 108*(9), 094012.
7. Karimabadi, M., Kord, A. F., & Azadegan, B. (2025). Hydrodynamic study on the evolution of magnetized viscous QGP. *Eur. Phys. J. A.*