Mahdi Kord Zangeneh

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Current Position

Assistant Professor
Shahid Chamran University of Ahvaz, Ahvaz, Iran
From 2017 to present

Education

PhD:
Physics (Gravitation and Cosmology)
Shiraz University, Shiraz, Iran
From 2012 to 2017
Thesis title: Gauge/gravity duality in string-generated gravities
Supervisors: Prof. Mohammad Hossein Dehghani, Prof. Ahmad Sheykhi

MSc:
Physics (Gravitation and Cosmology)
Shiraz University, Shiraz, Iran
From 2010 to 2012
Thesis title: Traversable Lorentzian wormholes in higher-dimensional space-times
Supervisor: Prof. Nematollah Riazi

BSc:
Physics
Shahid Chamran University of Ahvaz, Ahvaz, Iran
From 2006 to 2010

Visiting Researcher

Shanghai Jiao Tong University, Shanghai, China
From May, 2016 to February, 2017

➢ Publications

1. **M. Kord Zangeneh**, F.S.N Lobo and N. Riazi, *Higher-dimensional evolving wormholes satisfying the null energy condition*, Phys. Rev. D 90, 024072 (2014) [arXiv:1406.5703].
2. **M. Kord Zangeneh**, A. Sheykhi and M. H. Dehghani, *Thermodynamics of topological dilaton black holes with power-law Maxwell field*, Phys. Rev. D 91, 044035 (2015) [arXiv:1505.01103].
3. M. R. Mehdizadeh, **M. Kord Zangeneh** and F. S. N. Lobo, *Einstein-Gauss-Bonnet traversable wormholes satisfying the weak energy condition*, Phys. Rev. D 91, 084004 (2015) [arXiv:1501.04773].
4. M. R. Mehdizadeh, M. H. Dehghani and **M. Kord Zangeneh**, *Counterterms for static Lovelock solutions*, Eur. Phys. J. C 75, 276 (2015) [arXiv:1501.05218].
5. **M. Kord Zangeneh**, A. Sheykhi and M. H. Dehghani, *Thermodynamics of topological nonlinear charged Lifshitz black holes*, Phys. Rev. D 92, 024050 (2015) [arXiv:1506.01784].
6. M. R. Mehdizadeh, **M. Kord Zangeneh** and F. S. N. Lobo, *Higher-dimensional thin-shell wormholes in third-order Lovelock gravity*, Phys. Rev. D 92, 044022 (2015) [arXiv:1506.03427].
7. **M. Kord Zangeneh**, M. H. Dehghani and A. Sheykhi, *Thermodynamics of Gauss-Bonnet-dilaton Lifshitz black branes*, Phys. Rev. D 92, 064023 (2015) [arXiv:1506.07068].
8. **M. Kord Zangeneh**, A. Sheykhi and M. H. Dehghani, *Thermodynamics of charged rotating dilaton black branes with power-law Maxwell field*, Eur. Phys. J. C 75, 497 (2015) [arXiv:1506.04077].
9. **M. Kord Zangeneh**, M. H. Dehghani and A. Sheykhi, *Thermodynamics of topological black holes in Brans-Dicke gravity with a power-law Maxwell field*, Phys. Rev. D 92, 104035 (2015) [arXiv:1509.05990].
10. **M. Kord Zangeneh**, F. S. N. Lobo and M. H. Dehghani, *Traversable wormholes satisfying the weak energy condition in third-order Lovelock gravity*, Phys. Rev. D 92, 124049 (2015) [arXiv:1510.07089].
11. **M. Kord Zangeneh**, A. Dehyadegari, A. Sheykhi and M. H. Dehghani, *Thermodynamics and gauge/gravity duality for Lifshitz black holes in the presence of exponential electrodynamics*, JHEP 1603, 037 (2016) [arXiv:1601.04732].

12. **M. Kord Zangeneh**, A. Dehyadegari and A. Sheykhi, *Comment on "Insight into the Microscopic Structure of an AdS Black Hole from Thermodynamical Phase Transition"*, arXiv:1602.03711.
13. A. Dehyadegari, A. Sheykhi and **M. Kord Zangeneh**, *Holographic conductivity for logarithmic charged dilaton-Lifshitz solutions*, Phys. Lett. B 758, 226 (2016) [arXiv:1602.08476].
14. Z. Y. Tang, C. Y. Zhang, **M. Kord Zangeneh**, B. Wang and J. Saavedra, *Thermodynamical and dynamical properties of charged BTZ black holes*, Eur. Phys. J. C 77, 390 (2017) [arXiv:1610.01744].
15. **M. Kord Zangeneh**, A. Dehyadegari, M. R. Mehdizadeh, B. Wang and A. Sheykhi, *Thermodynamics, phase transitions and Ruppeiner geometry for Einstein-dilaton Lifshitz black holes in the presence of Maxwell and Born-Infeld electrodynamics*, Eur. Phys. J. C 77, 423 (2017) [arXiv:1610.06352].
16. **M. Kord Zangeneh**, B. Wang, A. Sheykhi and Z. Y. Tang, *Charged scalar quasi-normal modes for linearly charged dilaton-Lifshitz solutions*, Phys. Lett. B 771, 257 (2017) [arXiv:1701.03644].
17. A. Dehyadegari, **M. Kord Zangeneh** and A. Sheykhi, *Holographic conductivity in the massive gravity with power-law Maxwell field*, Phys. Lett. B 773, 344 (2017) [arXiv:1703.00975].
18. **M. Kord Zangeneh**, Y. C. Ong and B. Wang, *Entanglement entropy and complexity for one-dimensional holographic superconductors*, Phys. Lett. B 771, 235 (2017) [arXiv:1704.00557].
19. **M. Kord Zangeneh**, A. Dehyadegari, A. Sheykhi and R. B. Mann, *Microscopic origin of black hole reentrant phase transitions*, Phys. Rev. D 97, 084054 (2018) [arXiv:1709.04432].
20. B. Binaei Ghotbabadi, **M. Kord Zangeneh** and A. Sheykhi, *One-dimensional backreacting holographic superconductors with exponential nonlinear electrodynamics*, Eur. Phys. J. C 78, 381 (2018) [arXiv: 1804.05442].
21. M. Mohammadi, A. Sheykhi and **M. Kord Zangeneh**, *Analytical and numerical study of backreacting one-dimensional holographic superconductors in the presence of Born-Infeld electrodynamics*, Eur. Phys. J. C 78, 654 (2018) [arXiv: 1805.07377].
22. **M. Kord Zangeneh**, S. S. Hashemi, A. Dehyadegari, A. Sheykhi and B. Wang, *Optical properties of Born-Infeld-dilaton-Lifshitz holographic superconductors*, Phys. Lett. B 785, 238 (2018) [arXiv:1710.10162].

23. M. Mohammadi, A. Sheykhi and **M. Kord Zangeneh**, *One-dimensional backreacting holographic p-wave superconductors*, Eur. Phys. J. C 78, 984 (2018) [arXiv:1901.10540].
24. S. S. Hashemi, **M. Kord Zangeneh** and Mir Faizal, *Charged scalar quasi-normal modes for higher-dimensional Born–Infeld dilatonic black holes with Lifshitz scaling*, Eur. Phys. J. C 80, 111 (2020) [arXiv:1901.11367].
25. H. Moradpour, A. H. Ziaie and **M. Kord Zangeneh**, *Generalized entropies and corresponding holographic dark energy models*, Eur. Phys. J. C 80, 732 (2020) [arXiv:2005.06271].
26. **M. Kord Zangeneh** and A. Kazemi, *Topological Born-Infeld charged black holes in Einsteinian cubic gravity*, Eur. Phys. J. C 80, 794 (2020) [arXiv:2003.04458].
27. **M. Kord Zangeneh**, F. S. N. Lobo and H. Moradpour, *Evolving traversable wormholes satisfying the energy conditions in the presence of pole dark energy*, arXiv:2008.04013.
28. Kh. Jafarzade, **M. Kord Zangeneh** and F. S. N. Lobo, *Shadow, deflection angle and quasinormal modes of Born-Infeld charged black holes*, arXiv:2010.05755
29. Kh. Jafarzade, **M. Kord Zangeneh** and F. S. N. Lobo, *Optical features of AdS black holes in the novel 4D Einstein-Gauss-Bonnet gravity coupled to nonlinear electrodynamics*, arXiv:2009.12988.
30. **M. Kord Zangeneh** and F. S. N. Lobo, *Dynamic wormhole geometries in hybrid metric-Palatini gravity*, arXiv:2011.01745.

➢ Presentations and Participation

1. M. Kord Zangeneh and N. Riazi, *Wormholes in an (n+1)-dimensional cosmological background*, **Oral Talk**, National conference of gravitation and cosmology, Tehran University, Tehran, Iran, 2012.

2. M. Kord Zangeneh and M. H. Dehghani, *Traversable Lorentzian wormholes in Lovelock brane world*, **Oral Talk**, Spring conference of theoretical physics, Institute for research in fundamental sciences (IPM), Tehran, Iran, 2012.

3. M. Kord Zangeneh, A. Dehyadegari, A. Sheykhi and M. H. Dehghani, *Holographic conductivity of Lifshitz dilaton black holes with exponential nonlinear electrodynamics*, **Oral Talk**, National

conference of gravitation and cosmology, Shahid Beheshti University, Tehran, Iran, 2016.

4. 5th International Conference of "Eclipsing and Occultation", Isfahan, Iran, 2015.

5. First workshop of "*Monitoring of space objects*", Iran Space Agency (ISA), Observatory of Alborz space center, 2013.

6. International Conference of "Gauge/gravity Duality and Its Applications", Shanghai University, Shanghai, China, 2016.

7. "Spring School on Superstring Theory and Related Topics" at the Abdus Salam International Centre for Theoretical Physics (ICTP), Trieste, Italy, March 2017.

➢ Teaching Experiences

1. Gravitation I (MSc), Teacher, Shahid Chamran University of Ahvaz.
2. Astronomy and Astrophysics (BSc), Teacher, Shahid Chamran University of Ahvaz.
3. Physics I and II (BSc), Teacher, Shahid Chamran University of Ahvaz.
4. Physics I (BSc), Teacher, Shiraz University.
5. Gravitation I (MSc), Teacher Assistant, Shiraz University.
6. Quantum mechanics I and II (BSc), Teacher Assistant, Shiraz University.
7. Electromagnetism I (BSc), Teacher Assistant, Shiraz University.
8. Topology and differential geometry (PhD), Teacher Assistant, Shiraz University.

➢ Honors

1. Selected as distinguished researcher by "Iran Science Elites Federation" on 2018 (1397).
2. Selected as distinguished PhD student by "National Elites Foundation" of Iran on 2016 (1395).
3. Member of "Office of Gifted Students of Shiraz University".
4. Ranked 1st among about 20 PhD students.
5. Invited for PhD Interview as outstanding MSc student by Physics Department of Shiraz University.

6. Ranked 2nd among about 30 BSc students.

➢ Computer Skills

- ✓ MAPLE Software and GRTensor package
- ✓ MATHEMATICA Software and XAct package
- ✓ Word, Excel and PowerPoint

➢ Contact information

E-mail Address:
mkzangeneh@scu.ac.ir
kordzangeneh.mehdi@gmail.com