

Seyed Ali Hosseini Mansoori

BIRTH DATE	8 May 1988	
CONTACT INFORMATION	Faculty of physics, Shahrood University of Technology, P.O.Box 3619995161 Shahrood, Iran Email:shosseini@shahroodut.ac.ir, shosseini@ipm.ir	
CURRENT JOB	Assistant Professor , Faculty of Physics, Shahrood University of Technology, Shahrood, Iran.	
RESEARCH INTERESTS	Cosmology, AdS/CFT correspondence, General Relativity, Elementary Particles, Quantum Mechanics, Condensed Matter physics, Quantum Field Theory, Black Holes, Statistical Mechanics.	
EDUCATION	Isfahan University of Technology , Isfahan 84156-83111, Iran, Ph.D., Elementary Particle Physics- Gravity and Cosmology, <i>Expected</i> : June 2016 <ul style="list-style-type: none">• Thesis Topic: <i>Entanglement entropy, high temperature superconductor and complexity in holographic framework</i>• Advisors: Dr. Behrouz Mirza, Professor and Dr. Moslem Zarie, Assistant Professor• Last 3 years, GPA: 18.56/20 M.S., Elementary Particle Physics- Gravity and Cosmology, Aug 2012 <ul style="list-style-type: none">• Topic: <i>A new representation for thermodynamics of black holes</i>• Advisor: Dr. Behrouz Mirza, Professor and Dr. Moslem Zarie, Assistant Professor• GPA: 18.70/20 Shahrekord University , Sharekord 88186-34141, Iran B.S., Physics (Condensed Matter Physics), Aug 2010 <ul style="list-style-type: none">• GPA: 15.43/20	
RESEARCH EXPERIENCE	Resident Researcher at IPM School of Astronomy, IPM, Larak Garden, opposite Araj, Artesh Highway, Tehran, Iran	Sept 2017 to present
	Visiting Researcher at IPM School of Astronomy, IPM, Larak Garden, opposite Araj, Artesh Highway, Tehran, Iran	April 2017- Sept 2017
	Post-doctoral fellowship at IPM School of Astronomy, IPM, Larak Garden, opposite Araj, Artesh Highway, Tehran, Iran Supervisor: Dr. Hassan Firouzjahi, Professor	Sept 2016 -2017
	Visiting Researcher Theoretical Condensed Matter Physic group, Department of Physics, Boston University, 590 Commonwealth Ave., Boston, MA 02215, USA Supervisor: Dr. Anatoli Polkovnikov, Associate Professor	Oct 2015 -April 2016

1. S. A. Hosseini Mansoori and M. M. Qaemmaqami, “Complexity Growth, Butterfly Velocity and Black hole Thermodynamics,” *Annals Phys.* **419**, 168244 (2020).
2. S. A. Hosseini Mansoori and B. Mirza, “Geometrothermodynamics as a singular conformal thermodynamic geometry,” *Phys. Lett. B* **799**, 135040 (2019) [arXiv:1905.01733 [gr-qc]].
3. H. Firouzjahi, M. A. Gorji, S. A. Hosseini Mansoori, A. Karami and T. Rostami, “Charged Vector Inflation,” *Phys. Rev. D* **100**, no. 4, 043530 (2019) [arXiv:1812.07464 [hep-th]].
4. S. A. Hosseini Mansoori, V. Jahnke, M. M. Qaemmaqami and Y. D. Olivas, “Holographic complexity of anisotropic black branes,” *Phys. Rev. D* **100**, no. 4, 046014 (2019) [arXiv:1808.00067 [hep-th]].
5. H. Firouzjahi, M. A. Gorji, S. A. Hosseini Mansoori, A. Karami and T. Rostami, “*Two-field disformal transformation and mimetic cosmology*”, *JCAP* **1811**, no. 11, 046 (2018) [arXiv:1806.11472 [gr-qc]].
6. A. J. Hafshejani and S. A. Hosseini Mansoori, “*Unbalanced Stckelberg holographic superconductors with backreaction*,” *JHEP* **1901**, 015 (2019) [arXiv:1808.02628 [hep-th]].
7. Mohammad Ali Gorji, Shinji Mukohyama, Hassan Firouzjahi, Seyed Ali Hosseini Mansoori, *Gauge field mimetic cosmology*, *JCAP*. 08, 047 (2018), arXiv:1807.06335 [hep-th].
8. Ali Mokhtari, Seyed Ali Hosseini Mansoori, Kazem Bitaghsir Fadafan, *Diffusivities bounds in the presence of Weyl corrections*, *Physics Letters B* **785** (2018) 591-604, arXiv:1710.03738 [hep-th].
9. M. A. Gorji, S. A. Hosseini Mansoori, H. Firouzjahi, *Higher derivative mimetic gravity*, *JCAP*. 01, 020 (2018), arXiv:1709.09988 [astro-ph.CO] .
10. H. Firouzjahi, M. A. Gorji and S. A. Hosseini Mansoori, *Instabilities in mimetic matter perturbations*, *JCAP*. 07, 031 (2017), 1703.02923 [hep-th]
11. Seyed Ali hosseini Mansoori, Behrouz Mirza, Ali Mokhtari, Fatemeh Laleghani, and Zeinab Sherkatghanad, *Weyl holographic superconductor in Lifshitz black hole background*, arXiv: 1602.07245[gr-qc], *JHEP* 07 (2016) 111.
12. Seyed Ali hosseini Mansoori, Behrouz Mirza, Elham Sharifian, *Extrinsic curvature in thermodynamic geometry*, arXiv:1602.03066 [gr-qc], *Physics Letters B* **759** (2016) 298-305.
13. Seyed Ali hosseini Mansoori, Behrouz Mirza, *The non-Abelian Aharonov-Bohm effect with time- dependent gauge fields*, *Physics Letters B*, **755** (2016) 88 - 91.
14. Davood Momeni, Seyed Ali Hosseini Mansoori, Ratbay Myrzakulov, Holographic Complexity in Gauge/String Superconductors, arXiv:1601.03011 [hep-th], *Physics Letters B*, **756**, (2016), 354-357.
15. Seyed Ali hosseini Mansoori, Behrouz Mirza, Mahdi Davoudi Darareh, and Sharooz Janbaz, *Entanglement Thermodynamics of the Generalized Charged BTZ Black Hole*, arXiv:1512.00096 [gr-qc], *Int. J. Mod. Phys. A* **31**, 1650067 (2016)
16. Seyed Ali hosseini Mansoori, Behrouz Mirza, Mohamad Reza Fazel ,*Hessian matrix, specific heats, Nambu brackets, and thermodynamic geometry*, *JHEP* 04 (2015)115.

17. Zeinab Sherkatghanad, Behrouz Mirza, Zahra Mirzaeyan, Seyed Ali Hosseini Mansoori, *Critical behaviors and phase transitions of black holes in higher order gravities and extended phase spaces*, arXiv:1412.5028 [gr-qc], International Journal of Modern Physics D, Vol. 26 (2017) 1750017
18. Mohamad Reza Fazel, Behrouz Mirza and Seyed Ali hosseini Mansoori , *Black hole temperature: minimal coupling vs conformal coupling*, **Annals of Physics** 344 (2014) 232252.
19. Seyed Ali hosseini Mansoori, Behrouz Mirza, *Correspondence of phase transition points and singularities of thermodynamic geometry of black holes*, **Eur. Phys. J. C** (2014) 74:2681.

SUBMITTED
JOURNAL
PUBLICATIONS

1. S. A. Hosseini Mansoori, M. Rafiee and S. W. Wei, “Universal criticality of thermodynamic curvatures for charged AdS black holes,” [arXiv:2007.03255 [gr-qc]], submitted to PRD.
2. S. A. Hosseini Mansoori, “Thermodynamic geometry of the novel 4-D Gauss Bonnet AdS Black Hole,” [arXiv:2003.13382 [gr-qc]], submitted to EPJC.

PAPERS IN
PREPARATION

1. Hassan Firouzjahi, Alireza Talebian, and Seyed Ali Hosseini Mansoori, *Mimetic inflation and non-Gaussianity*, to be appeared in arXiv.
2. Mohamad Ali Gorji, Seyed Ali Hosseini Mansoori, and Hassan Firouzjahi, *Inflation with multiple vector fields and non-Gaussianities* , to be appeared in arXiv.

PRESENTATIONS

1. Hassan Firouzjahi, Mohammad Ali Gorji, Seyed Ali Hosseini Mansoori, *Adding chirality to the isotropic Vector Inflation*, presented in conference of gravity and cosmology, IPM, Iran, 2019.
2. Seyed Ali hosseini Mansoori, Hassan Firouzjahi, and Mohamad Ali Gorji, *On (in)stabilities in Mimetic matter perturbations* , presented in conference of gravity and cosmology, Isfahan University of Technology, Iran, 2018.
3. Seyed Ali hosseini Mansoori, Ahmad Jamali, *General Stckelberg Holographic Superconductor for electrical and spin conductivity*, presented in Conference of Iranian physics Society, Yazd University, Iran, 2017.
4. Morteza Rafiee, Seyed Ali hosseini Mansoori, *Correspondence between Quantum phase transitions and extrinsic curvature singularities in Dicke model*, presented in conference of Quantum information, Shahrood University of Technology, Iran, 2017.
5. Seyed Ali hosseini Mansoori, Behrouz Mirza, *Entanglement entropy of the Generalized Charged BTZ Black Hole*, presented in conference of gravity, Sharif University of Technology, Iran, 2015.
6. Seyed Ali hosseini Mansoori, Behrouz Mirza, *Entanglement Thermodynamics of the Generalized Charged BTZ Black Hole*, presented in Conference of Iranian physics Society, Ferdowsi University of Mashhad, Iran, 2015.
7. Seyed Ali hosseini Mansoori, Behrouz Mirza, *Correspondence of phase transition points and singularities of thermodynamic geometry of black holes*, Summer school on Cosmology, ICTP, Trieste, Italy, 2014.

8. Seyed Ali hosseini Mansoori, Behrouz Mirza, *Critical behaviors and phase transitions of Gauss-bonnet black holes*, presented in Conference of Iranian physics Society, Sistan and Baluchestan university, Iran, 2014.
9. Seyed Ali hosseini Mansoori, Behrouz Mirza, *Thermodynamic geometry in representation of the electric charge (Q-metric) and the relationship between singularities of the scalar curvature and phase transitions*, presented in conference of Iranian physics Society, Birjand University, Iran, 2013.
10. Seyed Ali hosseini Mansoori, Behrouz Mirza, *Correspondence of second order phase transition points and curvature singularities of Kerr black hole in arbitrary dimension*, presented in conference of gravity, Shahid Beheshti University, Iran, 2013.
11. Seyed Ali hosseini Mansoori, Behrouz Mirza, *Thermodynamic geometry of phantom Reissner- Nordstrom- AdS black hole*, presented in Conference of Iranian physics Society, Yazd University, Iran, 2012.

HONORS AND
ACHIEVEMENTS

Travel Awards

- Spring School on Superstring Theory and Related Topics, ICTP, Trieste, Italy Mar 2018.
- Summer school on Cosmology, ICTP, Trieste, Italy Aug 2014.

Student Awards — Isfahan University of Technology

- Outstanding Exceptional Talented Student Award May 2012

Research Fellowship

Aug 2015

- Research Fellowship (RF) program is intended to give the most accomplished final-year PhD candidates an opportunity to collaborate with other people at best universities in the world.

Members of National Elite Foundation of Iran.

from 2013 to present.

TEACHING
EXPERIENCE

Lecturer

2016-2018

Quantum Field Theory (QFT)

Faculty of Physics, Shahrood University of Technology, Shahrood, Semnan, Iran.

Advanced Particle physics

Faculty of Physics, Shahrood University of Technology, Shahrood, Semnan, Iran.

Fundamental Astronomy

Faculty of Physics, Shahrood University of Technology, Shahrood, Semnan, Iran.

Classical Mechanics

Faculty of Physics, Shahrood University of Technology, Shahrood, Semnan, Iran.

Special Relativity

Faculty of Physics, Shahrood University of Technology, Shahrood, Semnan, Iran.

Lecturer

2013-2015

Basic Physics 1 and 2

Islamic Azad University Dolatabad, Dolatabad, Isfahan, Iran.

Lecturer

2013-2014

Optics and Physics 2

Payame Noor University, Dolatabad, Isfahan, Iran.

Teaching Assistant

2012–2014

Basic Physics

Instructor: Dr. Ismaeil Abdolhosseini Sarsari, Assistant Professor

Department of Physics, Isfahan University of Technology, Isfahan, Iran.

Laboratory Teaching Assistant

2014–2015

Electricite Electricity and Magnetism

Instructor: Dr. Keivan Aghababaei Samani, Associate Professor
Department of Physics, Isfahan University of Technology, Isfahan, Iran.

SKILL

Computer Skills

- Scientific Software Tools: Density Functional Theory by WIEN2K
- Programming Languages: Fortran, Mathematica (xAct), Maple

Language Skills

- English: Fluent
- Farsi: Native

REFERENCES

Dr. Hassan Firouzjahi

Professor,
School of Astronomy, IPM, Iran

Phone:+98 21 26130674-5

E-mail: firouz@ipm.ir

Dr. Anatoli Polkovnikov

Associate Professor,
Physics Department, Boston University, USA

Phone:+1 617-358-4394

E-mail: asp@physics.bu.edu

Dr. Behrouz Mirza

Professor,
Department of Physics,
Isfahan University Of Thechnology

Phone: +98 313-391-3706

E-mail:b.mirza@cc.iut.ac.ir

Dr. Moslem Zarei

Assistant Professor,
Department of Physics,
Isfahan University Of Thechnology

Phone: +98 313-391-3745

E-mail:m.zarei@cc.iut.ac.ir