



Hamid Shabani

Assistant Professor

Faculty : Science

Departments : Physics

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Education

- ✓ B.Sc, Solid State Physics, Bu-Ali Sina University - 2006
- ✓ MS, Physics - Astrophysics, Shahid Beheshti University - 2009
- ✓ PhD, Physics - Astrophysics, Shahid Beheshti University - 2014
- ✓ PhD, Physics - Astrophysics, Shahid Beheshti University - 2014

Courses

- | | |
|---|--|
| 1. Basic Physics 1 | 2. Basic Physics 3 |
| 3. Gravitation1 | 4. General Physics4 |
| 5. Physics 1 | 6. Technical English |
| 7. Relativity | 8. Relativity Theory |
| 9. Pre-General Physics | 10. Physics 2 |
| 11. Physics Laboratory 1 | 12. General Physics 3 |
| 13. Introduction Astro Physics | 14. Special Topics 1 |
| 15. Linear Algebra | 16. amar |
| 17. Calculus 1 | 18. Engineering Probability and Statistics |
| 19. special topics 2 | 20. probability theory and its application |
| 21. Calculus 2 (Vector and Multi variable Calculus) | 22. Astronomy and Astrophysics |
| 23. Physics Laboratory 2 | 24. Special Topics 1 |

Master Thesis

Journals Papers

2024

1. Gravitational collapse without singularity formation in Brans-Dicke theory

A. H. Ziaie, Hamid Shabani, H. Moradpour

European Physical Journal Plus Volume: (139) 148-1 - 148-15

2023

2. Galaxy rotation curves in the $f(R, T)$ gravity formalism

Hamid Shabani, P H R S Moraes

PHYSICA SCRIPTA Volume: (98) 065302-1 - 065302-9

3. Varying gravitational coupling theories and the Generalized Rastall Theory

Hamid Shabani

Volume: (13) 1 - 16

4. A non-singular bouncing cosmology in $f(R,T)$ gravity

J.K. Singh, Shaily Shaily, Akanksha Singh, Aroonkumar Beesham, Hamid Shabani

ANNALS OF PHYSICS Volume: (455) 169382-1 - 169382-13

5. Phase-space analysis of a novel cosmological model in $f(Q)$ theory

Hamid Shabani, Avik De, Tee-How Loo

EUROPEAN PHYSICAL JOURNAL C Volume: (83) 535-1 - 535-12

6. Slow-roll inflation and reheating in Rastall theory

B. Afshar, H. Moradpour, Hamid Shabani

Physics of the Dark Universe Volume: (42) 101357-1 - 101357-12

2022

7. A dynamical system representation of generalized Rastall gravity

Hamid Shabani, Hooman Moradpour, Amir Hadi Ziaie

Physics of the Dark Universe Volume: (36) 1 - 7

8. Einstein static universe and its stability in generalized Rastall gravity

Hamid Shabani, Amir Hadi Ziaie, Hooman Moradpour

ANNALS OF PHYSICS Volume: (444) 169058 -

9. Quantum gravity and the square of Bell operators

S. Aghababaei, H. Moradpour, Hamid Shabani

Quantum Information Processing Volume: (21) 57 - 67

2021

10. Non-minimal coupling inspires the Dirac cosmological model

H. Moradpour, Hamid Shabani, A. H. Ziaie, Umesh Kumar Sharma

European Physical Journal Plus Volume: (136) 731-1 - 731-12

11. Effects of Rastall parameter on perturbation of dark sectors of the Universe

A. H. Ziaie, Hamid Shabani, S. Ghaffari

MODERN PHYSICS LETTERS A Volume: (36) 2150082-1 - 2150082-21

2020

12. Structure formation in generalized Rastall gravity

A. H. Ziaie, H. Moradpour, Hamid Shabani

European Physical Journal Plus Volume: (135) 1 - 13

13. A connection between Rastall-type and $f(R, T)$ gravities

Hamid Shabani, Amir Ziaie Hadi

EPL Volume: (129) 1 - 6

2019

14. Stability of the Einstein static Universe in Einstein-Cartan-Brans-Dicke gravity

Hamid Shabani, Amir Hadi Ziaie

EUROPEAN PHYSICAL JOURNAL C Volume: (79) 1 - 16

15. Cosmological aspects of a hyperbolic solution in $f(R, T)$ gravity

Ritika Nagpal, J.K. Singh, A. Beesham, Hamid Shabani

ANNALS OF PHYSICS Volume: (405) 234 - 255

2018

16. Bouncing cosmological solutions from $f(RT)$ gravity

Hamid Shabani, Amir Hadi Ziaie

EUROPEAN PHYSICAL JOURNAL C Volume: (78) 1 - 24

17. Static vacuum solutions on curved space-times with torsion

Hamid Shabani, Amir Hadi Ziaie

INTERNATIONAL JOURNAL OF MODERN PHYSICS A Volume: (33) 1 - 22

18. Interpretation of $f(RT)$ gravity in terms of a conserved effective fluid

Hamid Shabani, amir hadi ziyaei

INTERNATIONAL JOURNAL OF MODERN PHYSICS A Volume: (33) 1 - 18

2017

19. Cosmological consequences and statefinder diagnosis of a noninteracting generalized Chaplygin gas in $f(RT)$ gravity

Hamid Shabani

INTERNATIONAL JOURNAL OF MODERN PHYSICS D Volume: (26) 1750120-1 - 1750120-34

20. Consequences of energy conservation violation- Late time solutions of $(T)CDM$ subclass of $f(RT)$ gravity using dynamical system approach

Hamid Shabani,

EUROPEAN PHYSICAL JOURNAL C Volume: (77) 282-1 - 282-14

21. Stability of the Einstein static universe in $f(RT)$ gravity

Hamid Shabani, Amir Hadi Ziaie

EUROPEAN PHYSICAL JOURNAL C Volume: (77) 1 - 15

22. Late-time cosmological evolution of a general class of $f(R,T)$ gravity with minimal curvature-matter coupling

Hamid Shabani, Amir Hadi Ziaie

EUROPEAN PHYSICAL JOURNAL C Volume: (77) 507-1 - 507-14

2014

23. Cosmological and solar system consequences of $f(R,T)$ gravity models

Hamid Shabani, Mehrdad Farhoudi

PHYSICAL REVIEW D Volume: (90) 1 - 20

2013

24. $f(R,T)$ cosmological models in phase space

Hamid Shabani, Mehrdad Farhoudi

PHYSICAL REVIEW D Volume: (88) 1 - 24

Conferences Papers

2022

1. [A suggestion for the Lagrangian of the Rastall gravitational theories](#)

annual physics conference of Iran 2022

Hamid Shabani, Amir Hadi Ziaie

2019

2. [Bouncing cosmological solutions from \$f\(R,T\)\$ gravity](#)

Hamid Shabani, Amir Hadi Ziaie

2017

3. [Stability of the Einstein static Universe in \$f\(RT\)\$ gravity](#)

Irans tenth national conference on astronomy and astrophysics 1395

Hamid Shabani,

4. [A perfect fluid or a Chaplygin gas A novel point of view on \$f\(RT\)\$ gravity](#)

The Annual Physics Conference of Iran 2017

Hamid Shabani, Amir Hadi Ziaie

2016

5. [Cosmological consequences and statefinder diagnosis of non-interacting generalized Chaplygin gas in \$f\(RT\)\$ gravity](#)

Annual Physics Conference of Iran

Hamid Shabani

6. [Considering the cosmological solution of a gravity model using the dynamical system approach](#)

Iranian Conference on mathematical physics

Hamid Shabani,

7. [Considering the cosmological solution of a gravity model using the dynamical system approach](#)

Iranian Conference on Mathematical Physics

Hamid Shabani, Mehrdad Farhoudi

2014

8. [f \(RT\) gravity](#)

Summer school on cosmology ICTP Trieste Italy

Hamid Shabani

Research Project

2016

1. Cosmological consequences and statefinder diagnosis of a noninteracting generalized Chaplygin gas in

Hamid Shabani - 2016