



**Dr. Nadeem Azhar**

House No. 4 Street No. 8 Karim Park Ravi Road Lahore.  
Contact # 0321-4197835 (WhatsApp), 0312-4968687.  
Email: [nadeemazharsaeed@gmail.com](mailto:nadeemazharsaeed@gmail.com).

**OVERVIEW of ACHIEVEMENTS**

- PhD completion in July 2022 in the field of General Relativity and Cosmology.
- **15** published/accepted research articles in international journals.
- Accumulative impact factor is **34**.
- **Citations** since 2016 are more than 100
- Selected as research assistant in NRPU research projects by Dr. Shamaila Rani CUI Lahore 2017 (completed).

**EDUCATION**

| <b>Degree Name</b>  | <b>Year</b> | <b>University Name</b>  | <b>Descriptions</b>   |
|---|-------------|---|---|
| <b>PhD</b><br><b>Mathematics,</b><br>(General<br>Relativity and<br>Cosmology) | 2017-2022   | Department of<br>Mathematics, Comsats<br>University Islamabad,<br>Lahore Campus, Lahore,<br>Pakistan. | <b>Thesis Title:</b> <u>Impact of<br/>Alternative Theories of<br/>Gravity on Current Cosmic<br/>Scenarios</u><br><b>Course Work Subjects:</b> <ul style="list-style-type: none"><li>• Theory of Groups</li><li>• Relativistic Theory of Black<br/>Holes</li><li>• Non-Newtonian Fluid</li><li>• Fluid and Thermodynamics</li><li>• Topics in Numerical<br/>Mathematics</li><li>• Topics in Graph<br/>Valuations</li></ul> |

|  |             |  |  |
|--|-------------|--|--|
| <b><u>M. Phil. Mathematics</u></b><br>(General Relativity and Cosmology) | 2014 – 2016 | Department of Mathematics, Comsats University Islamabad, Lahore Campus, Lahore, Pakistan | <b>Thesis Title:</b> <u>Cosmic Acceleration in Dynamical Chern-Simons Modified Gravity</u><br><b>CGPA:</b> 3.48 /4.0<br><b>Division:</b> First<br><b>Course Work Subjects:</b> <ul style="list-style-type: none"> <li>• Numerical Solution of ODEs.</li> <li>• Advance Partial Differential Equations.</li> <li>• Fuzzy Logic and Applications.</li> <li>• Advance Modern Algebra with Applications.</li> <li>• Advance Numerical Analysis.</li> <li>• Advance Topic in Graph Theory.</li> <li>• Commutative Algebra.</li> <li>• General Relativity</li> </ul> |
| <b><u>M. Sc Mathematics</u></b><br>(Applied Mathematics)                 | 2011 – 2013 | Department of Mathematics, University of Education, Lahore, Pakistan.                    | <b>CGPA:</b> 3.29/4.0<br><b>Division:</b> First  |

### PERSONAL INFORMATION

Father name: Azhar Saeed  
 CNIC NO: 35202-8790640-7  
 Date of Birth: 20<sup>th</sup> August, 1983.  
 Place of Birth: Lahore  
 Marital Status: Married

### Academic Experience

- Lecturer (Sep. 2017 – Sep. 2022)  
 Department of Mathematics,  
 National College of Business Administration and Economics (NCBA & E)  
 FLC Campus, Lahore Pakistan.
- Lecturer (Nov 2012 - June 2017)  
 Department of Mathematics,  
 Imperial College of Engineering, Lahore Pakistan.

**CONFERENCES/SEMINARS ATTENDED**

| No. | Title of Conference   | Date             | Status                     | University Name  |
|-----|---|------------------|----------------------------|--|
| 1   | International Conference on Relativistic Astrophysics                             | Feb: 10-14, 2015 | <b>Participant</b>         | Department of Mathematics, University of the Punjab, Lahore, Pakistan.           |
| 2   | International Conference On Recent Advances in Applied Mathematics                | Dec: 17-18, 2015 | <b>Participant</b>         | Department of Mathematics, COMSATS Institute of Information Technology, Lahore.  |
|     | Workshop on Relativistic Astrophysics and Cosmology                               | Nov: 24-25, 2016 | <b>Participant</b>         | Department of Mathematics, COMSATS Institute of Information Technology, Lahore.  |
| 3   | 1st PU International Conference on Gravitation and Cosmology                      | Jan: 27-31, 2019 | <b>Poster presentation</b> | Department of Mathematics, University of the Punjab, Lahore Pakistan.            |
| 4   | International Conference of Recent Advances in Applied Mathematics 2019           | Feb: 20-22, 2019 | <b>Speaker</b>             | Department of Mathematics, COMSATS University Islamabad, Lahore-Campus Pakistan  |
| 5   | 5 <sup>th</sup> UMT international Conference on Pure and Applied Mathematics 2019 | March 29-31 2019 | <b>Speaker</b>             | Department of Mathematics, University of Management and Technology (UMT), Lahore |
| 6   | 4 <sup>th</sup> PU International Conference on Gravitation and Cosmology          | Nov: 22-25, 2021 | <b>Speaker</b>             | Department of Mathematics, University of the Punjab, Lahore Pakistan             |

## RESEARCH PUBLICATIONS

1. Sania, **Nadeem Azhar**, Shamaila Rani and Abdul Jawad  
“Cosmic and Thermodynamic Consequences of Kaniadakis Holographic Dark Energy in Brans-Dicke Gravity”,  
*Entropy*, **25(2023) 576. (Category W, IF=2.738).**  
<https://www.mdpi.com/1099-4300/25/4/576>
2. Abdul Jawad, Abdul Malik Sultan and **Nadeem Azhar**  
“Dynamics of Constant Sound Speed Inspires Warm Inflation”,  
*Mod. Phys. Lett. A*, **37(2022) 2250166. (Category X, IF=1.594).**  
<https://inspirehep.net/literature/2181388>
3. Abdul jawad and **Nadeem Azhar**  
“ $f(T, \tau)$  Gravity and Generalized Gravitational Baryogenesis”,  
*Mod. Phys. Lett. A*, **35(2022) 2050268. (Category X, IF=1.594).**  
<https://inspirehep.net/literature/2075212>
4. Abdul Jawad, Abdul Malik Sultan and **Nadeem Azhar**:  
“Canonical Scalar Field Inflation in  $f(T)$  Gravity with Well-Known Potentials”,  
*Astrophys. Space Sci.* **367(2022) 48 (Category X, IF=1.909).**  
<https://link.springer.com/article/10.1007/s10509-022-04073-2>
5. Abdul Jawad, Shamaila Rani, Sameen Ashraf, **Nadeem Azhar**:  
“Barrow Holographic Dark Energy in Deformed Horava-Lifshitz Gravity”,  
*Int. J. Geom. Meth. Mod. Phys.* **15(2022) 1850034 (Category X, IF=1.873).**  
<https://www.worldscientific.com/doi/10.1142/S0219887822501122>
6. **Nadeem Azhar**, Abdul Jawad, Shamaila Rani:  
“Impact of  $f(G, T)$  and  $f(R, G)$  on Gravitational Baryogenesis and Observational Bounds”,  
*Physics of the Dark Universe* **32(2021) 100815 (Category W, IF=5.09).**  
<https://www.sciencedirect.com/science/article/abs/pii/S2212686421000467>
7. Shamaila Rani, **Nadeem Azhar**:  
“Braneworld Inspires Cosmological Implications of Barrow Holographic Dark Energy”,  
*Universe* **7(2021),268 (Category X, IF=2.813).**  
<https://www.mdpi.com/2218-1997/7/8/268>

8. **Nadeem Azhar**, Shamaila Rani, Abdul Jawad:  
Generalized gravitational baryogenesis of well-known  $f(T, T_G)$  and  $f(T, B)$  models  
***Physics of the Dark Universe* 30(2020)100724 (Category W, IF=5.909).**  
<https://www.sciencedirect.com/science/article/abs/pii/S2212686420304374>
  
9. Abdul Jawad, Shamaila Rani, Kazuharu Bamba and **Nadeem Azhar**:  
“Reconstruction of Warm Chaplygin Gas Inflationary Models”,  
**Mod. Phys. Lett. A, 35 (2020) 2050268 (Category X, IF=1.594).**  
<https://www.worldscientific.com/doi/abs/10.1142/S0217732320502685>
  
10. M. Umair Shahzad, **Nadeem Azhar**, Abdul Jawad, Shamaila Rani:  
“Viability of Specific Reconstructed  $f(T, \mathfrak{S})$  Models”,  
**Int. J. Mod. Phys. A, 34 (2019) 1950184 (Category X, IF=1.475).**  
<https://www.worldscientific.com/doi/abs/10.1142/S0217751X19501847>
  
11. Abdul Jawad Shamaila Rani and **Nadeem Azhar**:  
“Non-flat FRW Universe Version of Tsallis holographic Dark Energy in Specific Modified Gravity”  
**Mod. Phys. Lett. A 34(2019) 1950055 (Category X, IF= 1.594).**  
<https://www.worldscientific.com/doi/abs/10.1142/S021773231950055X>
  
12. Abdul Jawad and **Nadeem Azhar**:  
“Cosmic Aspects of Specific Dark Energy Model in Loop Quantum Cosmology”,  
**Int. J. Geom. Meth. Mod. Phys. 15 (2018) 1850170 (Category X, IF=1.873).**  
<https://www.worldscientific.com/doi/abs/10.1142/S0219887818501700>
  
13. **Nadeem Azhar**, Abdul Jawad, Sarfraz Ahmed and Iftikhar Ahmed:  
“Cosmological Implications of Dark Energy Models in Modified Gravity”,  
**Int. J. Geom. Meth. Mod. Phys. 15 (2018) 1850034 (Category X, IF=1.873).**  
<https://www.worldscientific.com/doi/abs/10.1142/S0219887818500342>
  
14. Abdul Jawad, Shamaila Rani and **Nadeem Azhar**:  
“Entropy Corrected Holographic Dark Energy Models in Modified Gravity”,  
**Int. J. Mod. Phys. D 26 (2017) 1750040 (Category W, IF=2. 547)**  
<https://www.worldscientific.com/doi/abs/10.1142/S0218271817500407>
  
15. Abdul Jawad, Shamaila Rani, Ines G. Salako and **Nadeem Azhar**:  
“Non-flat Pilgrim Dark Energy FRW Models in Modified Gravity”,  
**Astrophys. Space Sci. 361 (2016) 286 (Category X, IF=1.909).**  
<https://link.springer.com/article/10.1007/s10509-016-2868-z>

## Projects

### Completed:

1. As research assistant under the project entitled as,

**"Cosmological Analysis of Extended Teleparallel Gravity with Higher-Derivative Torsional Terms"**

under SRGP by HEC with grant No: 21-1112/SRGP/R&D/HEC/2016

## SELF ASSESSMENT

I have a good appreciable research skill including presentation skills, reading and writing skills in English and capable of teaching mathematics at any level with a great art of transfer of knowledge to the students. I can work under stress conditions, independently and with spirit. I have good working experience with scientific tools like Mathematica, Maple, WinEdit, Latex and MS Office.

## REFERENCES

- **Prof. Dr. Kashif Ali**  
Professor/ Chairman Department of Mathematics  
Comsats University Islamabad, Lahore Campus, Lahore-Pakistan  
Email: [kashifali@cuilahore.edu.pk](mailto:kashifali@cuilahore.edu.pk)
- **Dr. Abdul Jawad**  
Associate Professor  
Comsats University Islamabad, Lahore Campus, Lahore-Pakistan  
Email: [abdujawad@cuilahore.edu.pk](mailto:abdujawad@cuilahore.edu.pk)
- **Dr. Shamaila Rani**  
Associate Professor  
Comsats University Islamabad, Lahore Campus, Lahore-Pakistan  
Email: [drshamailarani@cuilahore.edu.pk](mailto:drshamailarani@cuilahore.edu.pk)