

# Azad Akhter Siddiqui

Professor

School of Electrical Engineering and Computer Science

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## About

Dr. Azad Akhter Siddiqui is working as Professor in the School of Electrical Engineering and Computer Science. Dr. Azad Akhter Siddiqui has a PhD in Mathematics. Dr. Azad Akhter Siddiqui has published 47 research articles & conference papers having a citation count of 395, carried out 1 projects and filed 0 intellectual property.

## Qualifications

<b>PhD in Mathematics</b> Quaid-i-Azam University , Pakistan	1990 - 2000
<b>MPhil in (Applied Mathematics/ General Relativity And Cosmology)</b> Quaid-i-Azam University , Pakistan	1988 - 1990
<b>MSc in Msc (Applied Mathematics) Qau, Islamabad 1988</b> Quaid-i-Azam University , Pakistan	1986 - 1988

## Experience

<b>Professor</b> School of Electrical Engineering and Computer Science	2023- Present
<b>Professor</b> School of Electrical Engineering and Computer Science	2022 - 2023
<b>Professor</b> School of Natural Sciences	2018 - 2022
<b>Professor</b> School of Natural Sciences	2014 - 2018
<b>Professor</b> School of Natural Sciences	2012 - 2014
<b>Professor</b> College of Electrical & Mechanical Engineering	2008 - 2012
<b>Associate Professor</b> College of Electrical & Mechanical Engineering	2003 - 2008
<b>Assistant Professor</b> College of Electrical & Mechanical Engineering	2000 - 2003
<b>Lecturer</b> College of Electrical & Mechanical Engineering	1997 - 2000

## Awards

<b>RPA</b> Research Productivity Award by Ministry of Science and Technology, Pakistan.	2003
<b>First Position in MPhil</b> First Position in MPhil in Quaid-i-Azam University, Islamabad	1990

Research Projects

National Projects

Solutions of the Einstein-Maxwell Field Equations and Foliations of Some Spacetimes	2022
Funding Agency: HEC	
Amount: PKR 11,220,000.00	
Status: Completed	

International Projects

Research Articles

Constant Mean Curvature Slices for the Schwarzschild-anti-de Sitter Spacetime	2024
Farrukh Haidar Azad Akhter Siddiqui	
International Journal of Theoretical Physics, Volume 63, Article Number 283	
Impact Factor: 1.300   Quartile: 3	
DOI: <a href="https://doi.org/10.1007/s10773-024-05819-0">https://doi.org/10.1007/s10773-024-05819-0</a>	
An approximate solution of the Blasius problem using spectral method	2024
Zunera Shoukat Azad Akhter Siddiqui M. Huzaifa Yaseen M. Ijaz Khan Barno Sayfutdinovna Abdullaeva M. Waqas Manish Gupta	
Partial Differential Equations in Applied Mathematics, Volume 11, Article Number 100896	
Impact Factor: N/A	
DOI: <a href="https://doi.org/10.1016/j.padiiff.2024.100896">https://doi.org/10.1016/j.padiiff.2024.100896</a>	
Center of mass energy of two charged particles around a magnetic Kerr black hole	2024
Ayesha Zakria Azad Akhter Siddiqui	
International Journal of Modern Physics D, Volume:33, Issue:12, Article Number 2450044 (16 pages)	
Impact Factor: 1.800   Quartile: 3   Citations: 1	
DOI: <a href="https://doi.org/10.1142/S0218271824500445">https://doi.org/10.1142/S0218271824500445</a>	
Weak cosmic censorship conjecture by overspinning the Kerr–Newman–Kasuya black hole	2024
Ayyesha Kanwal Ahmed Azad Akhter Siddiqui	
Modern Physics Letters A, Volume 39, No.12, Article Number 2450049 (8 pages)	
Impact Factor: 1.500   Quartile: 2	
DOI: <a href="https://doi.org/10.1142/S0217732324500494">https://doi.org/10.1142/S0217732324500494</a>	
Flat foliation of the Schwarzschild-anti-de Sitter metric	2023
Farrukh Haidar Azad Akhter Siddiqui	
Physica Scripta, Volume 98, Number 12, Article Number 125255	
Impact Factor: 2.9   Quartile: 2	
DOI: <a href="https://doi.org/10.1088/1402-4896/ad0759">10.1088/1402-4896/ad0759</a>	
Constant mean curvature foliation of the Taub–NUT metric	2023
Farrukh Haidar Azad Akhter Siddiqui	
European Physical Journal Plus, Volume 138, Issue 11, Article Number 989	
Impact Factor: 3.4   Quartile: 2   Citations: 1	
DOI: <a href="https://doi.org/10.1140/epjp/s13360-023-04637-3">10.1140/epjp/s13360-023-04637-3</a>	
An Approximate Closed-Form Solution for Mass Transfer Flow Due to a Rotating Rough and Porous Disk	2023
Zeshan Zulifqar Azad Akhter Siddiqui Asad Ali	
Arabian Journal for Science and Engineering, Pages 1-8	
Impact Factor: 2.9   Quartile: 2   Citations: 4	
DOI: <a href="https://doi.org/10.1007/s13369-023-08331-5">https://doi.org/10.1007/s13369-023-08331-5</a>	
Self-force effects around charged (2+1 )-dimensional BTZ black hole in the Einstein–Gauss–Bonnet gravity	2023
Ayyesha K. Ahmed Azad Akhter Siddiqui	
Modern Physics Letters A, Volume 2023, Article Number 2350077 (10 Pages)	
Impact Factor: 1.4   Quartile: 3	
DOI: <a href="https://doi.org/10.1142/S0217732323500773">https://doi.org/10.1142/S0217732323500773</a>	
A systematic approach to find solutions of the Einstein-Maxwell field equations for static spherically symmetric spacetimes using Segre classification	2022

<p><i>Aneela Iram Azad Akhter Siddiqui Tooba Feroze</i>  <i>International Journal of Modern Physics D</i>, Volume 31, No. 11, Article Number 2240006</p> <p><b>Impact Factor:</b> 2.547   <b>Quartile:</b> 3   <b>Citations:</b> 2  <b>DOI:</b> <a href="https://doi.org/10.1142/S0218271822400065">https://doi.org/10.1142/S0218271822400065</a></p>		
<p><b>First Law of Black Hole Thermodynamics for the Kerr–Newman Spacetime Using Foliation</b></p> <p><i>Azad Akhter Siddiqui Syed Muhammad Jawwad Riaz</i>  <i>Gravitation &amp; Cosmology</i>, Volume 26, No. 1, Pages 82-85</p> <p><b>Impact Factor:</b> 1.173   <b>Quartile:</b> 4   <b>Citations:</b> 1  <b>DOI:</b> DOI: 10.1134/S0202289320010119</p>		2020
<p><b>A Novel Approach to Develop a Closed-Form Solution for MHD Flow Induced by a Rotating Disk</b></p> <p><i>Zeshan Zulifqar Azad Akhter Siddiqui Meraj Mustafa Hashmi</i>  <i>IEEE Access</i>, Volume 7, page 124410</p> <p><b>Impact Factor:</b> 3.745   <b>Quartile:</b> 1   <b>Citations:</b> 3  <b>DOI:</b> 10.1109/ACCESS.2019.2938314</p>		2019
<p><b>First law of black hole thermodynamics for the Kerr black hole using foliation</b></p> <p><i>Syed Muhammad Jawwad Riaz Azad Akhter Siddiqui</i>  <i>Journal of Astrophysics and Astronomy</i>, Volume: 40 Issue: 3</p> <p><b>Impact Factor:</b> 1.273   <b>Quartile:</b> 3   <b>Citations:</b> 1  <b>DOI:</b> 10.1007/s12036-019-9588-z</p>		2019
<p><b>On Spherically Symmetric Solutions of the Einstein-Maxwell Field Equations</b></p> <p><i>Tooba Feroze Azad Akhter Siddiqui Rashida Bibi</i>  <i>General Letters in Mathematics</i>, Vol. 3, No. 3, Dec 2017, pp.164-168</p> <p><b>Impact Factor:</b> N/A  <b>DOI:</b> <a href="http://www.refaad.com/views/GLM/333.html">http://www.refaad.com/views/GLM/333.html</a></p>		2017
<p><b>Non-Static Spherically Symmetric Exact Solution of the Einstein-Maxwell Field Equations</b></p> <p><i>Ayesha Mahmood Azad Akhter Siddiqui Tooba Feroze</i>  <i>Journal of the Korean Physical Society</i>, NULL</p> <p><b>Impact Factor:</b> 0.493   <b>Quartile:</b> 4   <b>Citations:</b> 3  <b>DOI:</b> <a href="https://doi.org/10.3938/jkps.71.396">https://doi.org/10.3938/jkps.71.396</a></p>		2017
<p><b>A Class of Non-Static Exact Solutions of the Einstein-Maxwell Field Equations</b></p> <p><i>Ayesha Mehmood Azad Akhtar Siddiqui TOOBA SIDDQUI</i>  <i>International Journal of Modern Physics D</i>, International Journal of Modern Physics D Vol. 26, No. 5 (2017) 1741008 (12 pages)</p> <p><b>Impact Factor:</b> 2.171   <b>Quartile:</b> 2  <b>DOI:</b> 10.1142/S0218271817410085</p>		2017
<p><b>A class of nonstatic exact solutions of the Einstein-Maxwell field equations</b></p> <p><i>Ayesha Mahmood Azad Akhtar Siddiqui Tooba Feroze</i>  <i>International Journal of Modern Physics D</i>, Volume: 26 Issue: 5 Special Issue: SI Article Number: 1741008</p> <p><b>Impact Factor:</b> 2.171   <b>Quartile:</b> 2  <b>DOI:</b> <a href="http://dx.doi.org/10.1142/S0218271817410085">http://dx.doi.org/10.1142/S0218271817410085</a></p>		2017
<p><b>Solution of the Einstein-Maxwell equations with anisotropic negative pressure as a potential model of a dark energy star</b></p> <p><i>Rashida Bibi Tooba Feroze Azad Akhter Siddiqui</i>  <i>Canadian Journal of Physics</i>, Volume: 94 Issue: 8 Pages: 758-762</p> <p><b>Impact Factor:</b> 0.877   <b>Quartile:</b> 3   <b>Citations:</b> 7  <b>DOI:</b> 10.1139/cjp-2016-0069</p>		2016
<p><b>On the extremal energy of bicyclic digraphs</b></p> <p><i>Mehtab Khan Rashid Farooq Azad Akhter Siddiqui</i>  <i>Journal of Mathematical Inequalities</i>, Volume 9, Issue 3, Pages 799-810</p> <p><b>Impact Factor:</b> 0.636   <b>Quartile:</b> 2   <b>Citations:</b> 20  <b>DOI:</b> 10.7153/jmi-09-66</p>		2015
<p><b>Holographic Dark Energy with Time Varying <math>n_2</math> Parameter in Non-Flat Universe</b></p> <p><i>Bushra Majeed Mubasher Jamil Azad Akhter Siddiqui</i>  <i>International Journal of Theoretical Physics</i>, Volume: 54 Issue: 1 Pages: 42-49</p> <p><b>Impact Factor:</b> 1.041   <b>Quartile:</b> 3   <b>Citations:</b> 5  <b>DOI:</b> 10.1007/s10773-014-2197-3</p>		2015

<p><b>Some exact solutions of the Einstein-Maxwell equations with a quadratic equation of state</b></p> <p>AZAD AKHTER SIDDIQUI TOOBA SIDDIQUI</p> <p><i>Journal of the Korean Physical Society</i>, JOURNAL OF THE KOREAN PHYSICAL SOCIETY Volume: 65 Issue: 6 Pages: 944-947 Special Issue: SI</p> <p><b>Impact Factor:</b> 0.418   <b>Quartile:</b> 4   <b>Citations:</b> 16</p> <p><b>DOI:</b> 10.3938/jkps.65.944</p>	2014
<p><b>Some Exact Solutions of the Einstein-Maxwell Equation with Quadratic Equation of State</b></p> <p>Tooba Feroze Azad Akhtar Siddiqui</p> <p><i>Journal of Korean Physical Society</i>, Volume: 65 Issue: 6 Pages: 944-947 Special Issue: SI</p> <p><b>Impact Factor:</b> 0.418   <b>Quartile:</b> 4   <b>Citations:</b> 16</p> <p><b>DOI:</b> 10.3938/jkps.65.944</p>	2014
<p><b>Proceedings of the 4th Italian-Pakistani Workshop on Relativistic Astrophysics Preface</b></p> <p>Francesco De Paolis Asghar Qadir AZAD AKHTER SIDDIQUI</p> <p><i>Physica Scripta</i>, Volume: 89, Issue: 8, Article Number: 080301</p> <p><b>Impact Factor:</b> 1.126   <b>Quartile:</b> 3   <b>Citations:</b> 2</p> <p><b>DOI:</b> 10.1088/0031-8949/89/8/080301</p>	2014
<p><b>A Method for Generating Approximate Similarity Solutions of Nonlinear Partial Differential Equations</b></p> <p>Mazhar Iqbal M. T. Mustafa Azad Akhter Siddiqui</p> <p><i>Abstract and Applied Analysis</i>, Volume 2014, Article ID 105414, 6 pages</p> <p><b>Impact Factor:</b> N/A   <b>Citations:</b> 1</p> <p><b>DOI:</b> 10.1155/2014/105414</p>	2014
<p><b>Accretion of Phantom energy onto a Rotating BTZ Black Hole</b></p> <p>Salahudin AZAD AKHTER SIDDIQUI M. Akbar</p> <p><i>Journal of Physics: Conference Series</i>, , Vol. 354, Article No. 012017,</p> <p><b>Impact Factor:</b> -</p> <p><b>DOI:</b> <a href="http://iopscience.iop.org/article/10.1088/1742-6596/354/1/012017/meta">http://iopscience.iop.org/article/10.1088/1742-6596/354/1/012017/meta</a></p>	2012
<p><b>Comments on revisiting the classical electron model in general relativity</b></p> <p>Azad Akhter Siddiqui Tooba Feroze</p> <p><i>Astrophysics and Space Science</i>, Volume: 335 Issue: 2 Pages: 337-337</p> <p><b>Impact Factor:</b> 1.686   <b>Quartile:</b> 2</p> <p><b>DOI:</b> 10.1007/s10509-011-0785-8</p>	2011
<p><b>Foliation and the First Law of Black Hole Thermodynamics</b></p> <p>Azad Akhter Siddiqui Syed Muhammad Jawwad Riaz Muhammad Akbar</p> <p><i>Chinese Physics Letters</i>, Volume: 28, Issue: 5, Article Number: 050401</p> <p><b>Impact Factor:</b> 0.731   <b>Quartile:</b> 3   <b>Citations:</b> 2</p> <p><b>DOI:</b> 10.1088/0256-307X/28/5/050401</p>	2011
<p><b>Charged anisotropic matter with quadratic equation of state</b></p> <p>TOOBA SIDDIQUI AZAD AKHTER SIDDIQUI</p> <p><i>General Relativity and Gravitation</i>, GENERAL RELATIVITY AND GRAVITATION Volume: 43 Issue: 4 Pages: 1025-1035</p> <p><b>Impact Factor:</b> 2.069   <b>Quartile:</b> 1   <b>Citations:</b> 121</p> <p><b>DOI:</b> 10.1007/s10714-010-1121-2</p>	2011
<p><b>Foliation of the Kottler-Schwarzschild-de Sitter Spacetime by Flat Spacelike Hypersurfaces</b></p> <p>AZAD AKHTER SIDDIQUI</p> <p><i>General Relativity and Gravitation</i>, Volume: 43 Issue: 4 Pages: 1189-1196</p> <p><b>Impact Factor:</b> 2.069   <b>Quartile:</b> 1   <b>Citations:</b> 2</p> <p><b>DOI:</b> 10.1007/s10714-010-1064-7</p>	2011
<p><b>Non-singular coordinates for circularly Symmetric Black Holes in 2 + 1 Dimensions</b></p> <p>S M Jawwad Riaz Azad Akhter Siddiqui</p> <p><i>General Relativity and Gravitation</i>, Volume 43, Number 4, Pages 1167-1178</p> <p><b>Impact Factor:</b> 2.069   <b>Quartile:</b> 1   <b>Citations:</b> 2</p> <p><b>DOI:</b> 10.1007/s10714-010-1058-5</p>	2011
<p><b>Asymptotic Behaviour of Proper Length and Volume of the Schwarzschild Singularity</b></p> <p>Asghar Qadir Azad Akhter Siddiqui</p> <p><i>International Journal of Modern Physics D</i>, Volume: 18 Issue: 3 Pages: 397-404</p> <p><b>Impact Factor:</b> 1.046   <b>Quartile:</b> 3   <b>Citations:</b> 3</p> <p><b>DOI:</b> 10.1142/S0218271809014510</p>	2009

<b>Charged Rotating BTZ Black Hole and Thermodynamic Behavior of Field Equations at its Horizon</b> <i>M Akbar Azad Akhter Siddiqui</i> <i>Physics Letters B</i> , Volume: 656 Issue: 4-5 Pages: 217-220 <b>Impact Factor:</b> 4.189   <b>Quartile:</b> 1   <b>Citations:</b> 62 <b>DOI:</b> 10.1016/j.physletb.2007.09.053	2007
<b>Uniqueness of flat spherically symmetric spacelike hypersurfaces admitted by spherically symmetric static spacetimes</b> <i>Robert Beig Azad Akhter Siddiqui</i> <i>Classical and Quantum Gravity</i> , Volume: 24 Issue: 22 Pages: 5435-5439 <b>Impact Factor:</b> 2.846   <b>Quartile:</b> 1   <b>Citations:</b> 15 <b>DOI:</b> 10.1088/0264-9381/24/22/008	2007
<b>K-slicing of the Reissner-Nordstrom space-time:: Some new observations</b> <i>Asghar Qadir M. Sajid Azad Akhter Siddiqui</i> <i>Nuovo Cimento della Societa Italiana di Fisica B</i> , Volume122, Issue 3, Pages 333-341 <b>Impact Factor:</b> 0.217   <b>Quartile:</b> 4   <b>Citations:</b> 3 <b>DOI:</b> 10.1393/ncb/i2007-10366-x	2007
<b>Wavelet optimized finite difference method with non-static re-gridding</b> <i>Azad Akhter Siddiqui M.T. Mustafa</i> <i>Applied Mathematics and Computation</i> , Volume: 186 Issue: 1 Pages: 203-211 <b>Impact Factor:</b> 0.821   <b>Quartile:</b> 2   <b>Citations:</b> 2 <b>DOI:</b> 10.1016/j.amc.2006.06.130	2007
<b>Similarities between classical time-like geodesics in a naked Reissner-Nordstrom singularity background and the behavior of electrons in quantum theory</b> <i>Asghar Qadir Azad Akhter Siddiqui</i> <i>International Journal of Modern Physics D</i> , Volume: 16 Issue: 1 Pages: 25-33 <b>Impact Factor:</b> 1.87   <b>Quartile:</b> 2   <b>Citations:</b> 8 <b>DOI:</b> 10.1142/S0218271807009280	2007
<b>Foliation of the Schwarzschild &amp; Reissner-Nordstrom Spacetimes by Flat Spacelike Hypersurfaces</b> <i>ASGHAR QADIR AZAD A. SIDDIQUI</i> <i>International Journal of Modern Physics D</i> , Volume: 15 Issue: 9 Pages: 1419-1440 <b>Impact Factor:</b> 1.651   <b>Quartile:</b> 2   <b>Citations:</b> 18 <b>DOI:</b> 10.1142/S0218271806009157	2006
<b>Foliation of the Schwarzschild and Reissner-Nordstrom Space-Time by Flat Space-Like Hypersurface</b> <i>Asghar Qadir Azad Akhter Siddiqui</i> <i>International Journal of Modern Physics D</i> , Volume 14, No.9, Pages 1419-1440 <b>Impact Factor:</b> 1.651   <b>Quartile:</b> 2   <b>Citations:</b> 18 <b>DOI:</b> https://doi.org/10.1142/S0218271806009157	2006
<b>Proper affine vector fields in cylindrically symmetric static spacetimes</b> <i>Ghulam Shabbir AZAD AKHTER SIDDIQUI</i> <i>NUOVO CIMENTO DELLA SOCIETA ITALIANA DI FISICA B-BASIC TOPICS IN PHYSICS</i> , Volume: 120 Issue: 9 Pages: 939-949 <b>Impact Factor:</b> 0.324   <b>Quartile:</b> 4 <b>DOI:</b> 10.1393/ncb/i2005-10079-2	2005
<b>Use of Carter's coordinates for the extreme Reissner-Nordstrom spacetime to construct free-fall geodesics and a flat foliation</b> <i>Asghar Qadir Azad Akhter Siddiqui</i> <i>IL NUOVO CIMENTO</i> , , Vol. No. 117 B, No.8, pp-909-916, Aug 2002 <b>Impact Factor:</b> 0.366   <b>Quartile:</b> 4 <b>DOI:</b> -	2002
<b>Note on flat foliations of spherically symmetric spacetimes</b> <i>Viqar Husain Asghar Qadir Azad Akhter Siddiqui</i> <i>Physical Review D</i> , Vol: 65, Issue: 2, Article Number: 027501 <b>Impact Factor:</b> 4.358   <b>Quartile:</b> 2   <b>Citations:</b> 18 <b>DOI:</b> 10.1103/PhysRevD.65.027501	2002
<b>K Slicing the Schwarzschild and the Reissner-Nordstrom Spacetimes</b> <i>Asghar Qadir Azad Akhter Siddiqui</i>	1999

Foliation by Constant-Mean-Curvature Hypersurfaces of the Schwarzschild Spacetime

1995

Amjad pervez Asghar Qadir Azad Akhter Siddiqui

Physical Review D , Vol 51, No. 8, 1995

Impact Factor: N/A | Citations: 20

DOI: 10.1103/PhysRevD.51.4598

On Quantum Effects Near a Black-Hole Singularity

1990

Azad Akhter Siddiqui Asghar Qadir

Classical and Quantum Gravity, Volume: 7 Issue: 3 Pages: 511-513

Impact Factor: N/A | Citations: 1

DOI: 10.1088/0264-9381/7/3/025

Conference Proceedings

Foliation of the Schwarzschild Black Hole Surrounded by Quintessence

2015

AZAD AKHTER SIDDQUI Zafar S

International Conference on Physical Interpretations of Relativity Theory, res.country(190,)

Citations: N/A

DOI: 10.18698/2309-7604-2015-1-473-482

Existence of Double Null Form for Different Spacetimes

2012

Azad Akhter Siddiqui Syed Muhammad Jawwad Riaz

13th Marcel Grossmann Meeting on Recent Developments in Theoretical and Experimental General Relativity, Astrophysics and Relativistic Field Theories (MG13) , res.country(196,)

Citations: N/A

DOI: 10.1142/9789814623995\_0316

Spacetime Foliation

2006

AZAD AKHTER SIDDQUI

Proceedings of the 12th Regional Conference held from 27 March – 1 April 2006 in Islamabad, Pakistan, res.country(177,)

Citations: N/A

DOI: 10.1142/9789812770523\_0042