

Tooba Siddiqui

Professor

School of Natural Sciences

Email: tferoze@sns.nust.edu.pk

Contact: 0518741001

LinkedIn:



About

Dr. Tooba Siddiqui is working as Professor in the School of Natural Sciences. Dr. Tooba Siddiqui has a PhD in Mathematics. Dr. Tooba Siddiqui has published 52 research articles & conference papers having a citation count of 554, carried out 1 projects and filed 0 intellectual property.

Qualifications

PhD in Mathematics Quaid-i-Azam University , Pakistan	1999 - 2006
MPhil in Mathematics Quaid-i-Azam University , Pakistan	1997 - 1999
MSc in Mathematics University of the Punjab , Pakistan	1994 - 1997
BSc in Mathematics University of the Punjab , Pakistan	1991 - 1994

Experience

Professor School of Natural Sciences	2017- Present
Associate Professor School of Natural Sciences	2014 - 2014
Associate Professor School of Natural Sciences	2012 - 2014
Associate Professor School of Natural Sciences	2012 - 2012
Assistant Professor School of Natural Sciences	2007 - 2012
Research Associate National university of Sciences and Technology , National university of Sciences and Technology, H-12, Islamabad	2006 - 2007
Visiting Researcher Linkoping University, Sweden , Linkoping University, Sweden	2005 - 2006
Research Associate Centre for Advanced Mathematic, National university of Sciences and Technology , National university of Sciences and Technology, H-12, Islamabad	2005 - 2005
Lecturer NUCES (FAST) , National University of Computer and Emerging Sciences, H-11, Islamabad	2004 - 2005

Awards

School Best Teacher Award School Best Teacher Award for the year 2016-17	2019
School Best Teacher Award School Best Teacher Award for the year 2012-13	2014
RPA Research Productivity Award by Ministry of Science and Technology	

Research Projects

National Projects

Some Applications of Discrete Symmetry Analysis of Differential Equations	2019
Funding Agency: HEC	
Amount: PKR 780,000.00	
Status: Completed	

International Projects

Research Articles

Karmarkar Bardeen anisotropic model for compact stars in $F(R,T)$ gravity	2025
Tooba Siddiqui Furqan Nazeer	
Astrophysics and Space Science , Volume 370, Article Number 33	
Impact Factor: 1.800 Quartile: 3	
DOI: https://doi.org/10.1007/s10509-025-04423-w	
Perturbed conformal invariance and Mei adiabatic invariants of the generalized perturbed Hamiltonian systems with additional terms	2024
Haseeb Ur Rehman Tooba Siddiqui	
Studies in Applied Mathematics , Volume 153, Issue 4, Article Number e12766	
Impact Factor: 2.600 Quartile: 1	
DOI: https://doi.org/10.1111/sapm.12766	
Exact solutions based on Segre classification in the $f(R)$ modified theory of gravity	2024
Wardah Aroosh Afzal Tooba Siddiqui	
European Physical Journal C , Volume:84, Issue:3, Pages:16	
Impact Factor: 4.4 Quartile: 2 Citations: 3	
DOI: 10.1140/epjc/s10052-024-12617-9	
Perturbation to conformal invariance and adiabatic invariants of generalized perturbed Hamiltonian system with additional terms	2024
Haseeb Ur Rehman Tooba Siddiqui	
Physica D: Nonlinear Phenomena , Volume 458, Article Number: 134010	
Impact Factor: 4.0 Quartile: 1 Citations: 1	
DOI: 10.1016/j.physd.2023.134010	
A generalized polytropic equation of state stellar model with anisotropic charged fluid	2024
Wardah Aroosh Afzal Tooba Siddiqui	
Astrophysics and Space Science , Volume 369, Article Number 11, Pages: 17	
Impact Factor: 1.9 Quartile: 3 Citations: 1	
DOI: 10.1007/s10509-024-04273-y	
Classification of Painlevé Type Equations by the Mei Symmetries and their Exact Solutions	2023
Haseeb Ur Rehman Tooba Siddiqui	
Physica Scripta , Volume 98, Number 12, Article Number 125251	
Impact Factor: 2.9 Quartile: 2	
DOI: 10.1088/1402-4896/ad0d6a	
First order approximate conserved quantities induced by the approximate symmetries of the perturbed Lagrangian	2023
Haseeb Ur Rehman Tooba Siddiqui	
Physics Letters A , Volume 480, Article Number 128984	
Impact Factor: 2.6 Quartile: 3 Citations: 2	
DOI: https://doi.org/10.1016/j.physleta.2023.128984	
Approximate Mei symmetries of pp-wave spacetimes	2023
Umara Kausar Tooba Siddiqui	
Physica Scripta , Volume 98, Number 8, Article Number 085220	
Impact Factor: 2.9 Quartile: 2 Citations: 1	
DOI: 10.1088/1402-4896/ace486	
The Mei Symmetries for the Lagrangian Corresponding to the Schwarzschild Metric and the Kerr Black Hole Metric	2022

<p><i>Kinza Iftikhar Nimra Sher Asghar Tooba Siddiqui</i> <i>Symmetry</i> , Volume 14(10), Article Number 2079 Impact Factor: 2.7 Quartile: 2 Citations: 1 DOI: https://doi.org/10.3390/sym14102079</p>	
<p>Effects of the external magnetic field on the Lense–Thirring precession <i>Muhammad Rizwan Tooba Siddiqui</i> <i>International Journal of Modern Physics D</i>, Volume 31, No. 3, Article Number 2250012 (15 pages) Impact Factor: 2.461 Quartile: 2 Citations: 1 DOI: 10.1142/S0218271822500122</p>	2022
<p>A systematic approach to find solutions of the Einstein-Maxwell field equations for static spherically symmetric spacetimes using Segre classification <i>Aneela Iram Azad Akhter Siddiqui Tooba Feroze</i> <i>International Journal of Modern Physics D</i>, Volume 31, No. 11, Article Number 2240006 Impact Factor: 2.547 Quartile: 3 Citations: 2 DOI: https://doi.org/10.1142/S0218271822400065</p>	2022
<p>First-Order Approximate Mei Symmetries and Invariants of the Lagrangian <i>Umara Kausar Tooba Siddiqui</i> <i>Mathematics</i> , Volume 10(4), Article Number 649 Impact Factor: 2.258 Quartile: 1 Citations: 5 DOI: https://doi.org/10.3390/math10040649</p>	2022
<p>Optimal System and Exact Solutions of Monge-Ampere Equation <i>Tooba Mohsin Umair</i> <i>Communications in Mathematics and Applications</i>, Volume 12(4), Pages 825-833 Impact Factor: N/A DOI: https://doi.org/10.26713/cma.v12i4.1516</p>	2021
<p>Approximate Mei Symmetries and Invariants of the Hamiltonian <i>Umara Kausar Tooba Siddiqui</i> <i>Mathematics</i> , Volume 9(22), Article Number 2910 Impact Factor: 2.258 Quartile: 1 Citations: 5 DOI: https://doi.org/10.3390/math9222910</p>	2021
<p>Symmetries and Exact Solutions of Some Partial Differential Equations <i>Syed Tahir-ul-Husnain Tooba Feroze</i> <i>International Journal of Mechanics and Applications</i>, Volume 10(2), Pages 27-29 Impact Factor: - DOI: DOI: 10.5923/j.mechanics.20211002.01</p>	2021
<p>Discrete Symmetry Transformations of Third Order Ordinary Differential Equations and Applications <i>Khudija Bibi Tooba Feroze</i> <i>WSEAS Transactions on Mathematics</i>, Volume 19, Pages 503-509 Impact Factor: - Citations: 1 DOI: DOI: 10.37394/23206.2020.19.54</p>	2020
<p>Discrete Symmetry Group Approach for Numerical Solution of the Heat Equation <i>Khudija Bibi Tooba Feroze Khudija Bibi</i> <i>Symmetry</i> , Volume 12, Article Number 359 Impact Factor: 2.713 Quartile: 2 Citations: 8 DOI: 10.3390/sym12030359</p>	2020
<p>Optimal systems and their group invariants solutions to geodesic equations <i>Muhammad Safdar Bismah Jamil Tooba Feroze</i> <i>International Journal of Geometric Methods in Modern Physics</i>, Volume 16, Issue 9, Article Number 1950135 Impact Factor: 1.287 Quartile: 3 Citations: 2 DOI: 10.1142/S0219887819501354</p>	2019
<p>Exact solutions of Zabolotskaya-Khokhlov equation using optimal system <i>Tooba Feroze Mohsin Umair</i> <i>International Journal Of Geometric Methods In Modern Physics</i>, Vol. 15 (2018) (8 pages) Impact Factor: 1.022 Quartile: 3 DOI: 10.1142/S0219887818501116</p>	2018

- On Spherically Symmetric Solutions of the Einstein-Maxwell Field Equations** 2017
Tooba Feroze Azad Akhter Siddiqui Rashida Bibi
General Letters in Mathematics , Vol. 3, No. 3, Dec 2017, pp.164-168
Impact Factor: N/A
DOI: <http://www.refaad.com/views/GLM/333.html>
- Gravitational wave-type spacetime with cylindrical symmetry** 2017
Farhad Ali Tooba Siddiqui
Theoretical and Mathematical Physics, Volume 193(2), Pages 1703–1714
Impact Factor: 0.851 | **Quartile:** 3 | **Citations:** 9
DOI: <https://doi.org/10.1134/S0040577917110101>
- Non-Static Spherically Symmetric Exact Solution of the Einstein-Maxwell Field Equations** 2017
Ayesha Mahmood Azad Akhter Siddiqui Tooba Feroze
Journal of the Korean Physical Society, NULL
Impact Factor: 0.493 | **Quartile:** 4 | **Citations:** 3
DOI: <https://doi.org/10.3938/jkps.71.396>
- Geometrical/Physical Interpretation of the Conserved Quantities Corresponding to Noether Symmetries of Plane Symmetric Space-Times** 2017
Bismah Jamil Andres Vargas TOOBA SIDDIQUI
Advances in Mathematical Physics, 40 pages Article Number: 4384093
Impact Factor: 0.71 | **Quartile:** 4 | **Citations:** 5
DOI: [10.1155/2017/4384093](https://doi.org/10.1155/2017/4384093)
- A Class of Non-Static Exact Solutions of the Einstein-Maxwell Field Equations** 2017
Ayesha Mehmood Azad Akhtar Siddiqui TOOBA SIDDIQUI
International Journal of Modern Physics D, International Journal of Modern Physics D Vol. 26, No. 5 (2017) 1741008 (12 pages)
Impact Factor: 2.171 | **Quartile:** 2
DOI: [10.1142/S0218271817410085](https://doi.org/10.1142/S0218271817410085)
- Conservation laws corresponding to the Noether symmetries of the geodetic Lagrangian in spherically symmetric spacetimes** 2017
Bismah Jamil TOOBA SIDDIQUI
International Journal of Modern Physics D, INTERNATIONAL JOURNAL OF MODERN PHYSICS D Volume: 26 Issue: 5 Special Issue: SI Article Number: 1741006
Impact Factor: 2.171 | **Quartile:** 2 | **Citations:** 6
DOI: [10.1142/S0218271817410061](https://doi.org/10.1142/S0218271817410061)
- A class of nonstatic exact solutions of the Einstein-Maxwell field equations** 2017
Ayesha Mahmood Azad Akhtar Siddiqui Tooba Feroze
International Journal of Modern Physics D, Volume: 26 Issue: 5 Special Issue: SI Article Number: 1741008
Impact Factor: 2.171 | **Quartile:** 2
DOI: <http://dx.doi.org/10.1142/S0218271817410085>
- Cylindrically symmetric gravitational-wavelike space-times** 2017
Fahad Ali Tooba Siddiqui
Theoretical and Mathematical Physics, Volume 193, Number 2, Pages 343–355
Impact Factor: 0.851 | **Quartile:** 3
DOI: <https://doi.org/10.4213/tmf9148>
- Complete Classification of Cylindrically Symmetric Static Spacetimes and the Corresponding Conservation Laws** 2016
Farhad Ali Tooba Feroze
Mathematics , Volume: 4, Issue: 3, Article Number: UNSP 50
Impact Factor: 0 | **Citations:** 25
DOI: [10.3390/math4030050](https://doi.org/10.3390/math4030050)
- Solution of the Einstein-Maxwell equations with anisotropic negative pressure as a potential model of a dark energy star** 2016
Rashida Bibi Tooba Feroze Azad Akhter Siddiqui
Canadian Journal of Physics, Volume: 94 Issue: 8 Pages: 758-762
Impact Factor: 0.877 | **Quartile:** 3 | **Citations:** 7
DOI: [10.1139/cjp-2016-0069](https://doi.org/10.1139/cjp-2016-0069)

Charged analogue of Vlasenko?Pronin superdense star with variable cosmological term <i>Ghazala Nazeer TOOBA SIDDIQUI</i> <i>PRAMANA-Journal of Physics</i> , PRAMANA-Journal of Physics, pp. 789–800, Vol. 86, No. 4 Impact Factor: 0.520 Quartile: 4 DOI: 10.1007/s12043-015-1085-6	2016
Approximate Noether symmetries from geodetic Lagrangian for plane symmetric spacetimes <i>Farhad Ali Tooba Feroze</i> <i>International Journal of Geometric Methods in Modern Physics</i> , Volume: 12, Issue: 10, Article Number: 1550124 Impact Factor: 0.769 Quartile: 4 Citations: 14 DOI: 10.1142/S0219887815501248	2015
Comments on “Classification of Spherically Symmetric Static Spacetimes by Noether Symmetries, Int J Theor Phys 52, (2013) 3534–3542” <i>Tooba Feroze</i> <i>International Journal of Theoretical Physics</i> , INTERNATIONAL JOURNAL OF THEORETICAL PHYSICS Volume: 54 Issue: 10 Pages: 3500-3502 Impact Factor: 1.041 Quartile: 3 DOI: 10.1007/s10773-015-2590-6	2015
Complete classification of spherically symmetric static space-times via Noether symmetries <i>Farhad Ali Tooba Feroze Sajid Ali</i> <i>Theoretical and Mathematical Physics</i> , Volume 184, Issue 1, Pages 973-985 Impact Factor: 0.831 Quartile: 3 Citations: 27 DOI: DOI:10.1007/s11232-015-0310-2	2015
The Classification of Spherically Symmetric Static Spacetimes via Noether Symmetries <i>Farhad Ali Tooba Siddiqui Sajid Ali</i> <i>Theoretical and Mathematical Physics</i> , Volume 184(1), Pages 973-985 Impact Factor: 0.831 Quartile: 3 DOI: 10.1007/s10773-015-2590-6	2015
Exact Solutions of the Einstein Equations with polytropic Equations of State <i>Tooba Feroze Hadia Tariq</i> <i>Canadian Journal of Physics</i> , Volume 93(6), Pages 637-640 Impact Factor: 0.724 Quartile: 3 Citations: 6 DOI: doi:10.1139/cjp-2014-0362	2015
Exact Solutions of the Einstein-Maxwell Equations with Polytropic Equations of State <i>Hadia Tariq TOOBA SIDDIQUI</i> <i>Canadian Journal of Physics</i> , Canadian Journal of Physics, volume 93, pages 637–640 Impact Factor: 0.724 Quartile: 3 Citations: 6 DOI: https://doi.org/10.1139/cjp-2014-0362	2015
Some exact solutions of the Einstein-Maxwell equations with a quadratic equation of state <i>AZAD AKHTER SIDDIQUI TOOBA SIDDIQUI</i> <i>Journal of the Korean Physical Society</i> , JOURNAL OF THE KOREAN PHYSICAL SOCIETY Volume: 65 Issue: 6 Pages: 944-947 Special Issue: SI Impact Factor: 0.418 Quartile: 4 Citations: 16 DOI: 10.3938/jkps.65.944	2014
Some Exact Solutions of the Einstein-Maxwell Equation with Quadratic Equation of State <i>Tooba Feroze Azad Akhtar Siddiqui</i> <i>Journal of Korean Physical Society</i> , Volume: 65 Issue: 6 Pages: 944-947 Special Issue: SI Impact Factor: 0.418 Quartile: 4 Citations: 16 DOI: 10.3938/jkps.65.944	2014
Comments on Modeling Dynamical Interactions between Leptospirosis Infected Vector and Human Population [Applied Mathematical Sciences, 6 (2012), 1287-1302] <i>TOOBA SIDDIQUI</i> <i>Applied Mathematical Sciences</i> , Vol. 8, No.112, Pages 5565-5568 Impact Factor: 0 DOI: http://dx.doi.org/10.12988/ams.2014.45344	2014
Noether symmetries and conserved quantities for spaces with a section of zero curvature (vol 61, pg 658, 2011) <i>Farhad Ali Tooba Feroze</i>	2014

<i>Journal of Geometry and Physics</i> , Volume: 80, Pages: 88-89	
Impact Factor: 0.806 Quartile: 2 Citations: 6	
DOI: 10.1016/j.geomphys.2014.02.005	
The Classification of Plane Symmetric Static Spacetimes According to their Noether Symmetries	2013
<i>Farhad Ali TOOBA SIDDIQUI</i>	
<i>International Journal of Theoretical Physics</i> , International Journal of Theoretical Physics, pages 3329–3342	
Impact Factor: 1.186 Quartile: 3 Citations: 40	
DOI: 10.1007/s10773-013-1630-3	
Comments on revisiting the classical electron model in general relativity	2011
<i>Azad Akhter Siddiqui Tooba Feroze</i>	
<i>Astrophysics and Space Science</i> , Volume: 335 Issue: 2 Pages: 337-337	
Impact Factor: 1.686 Quartile: 2	
DOI: 10.1007/s10509-011-0785-8	
Charged anisotropic matter with quadratic equation of state	2011
<i>TOOBA SIDDIQUI AZAD AKHTER SIDDIQUI</i>	
<i>General Relativity and Gravitation</i> , GENERAL RELATIVITY AND GRAVITATION Volume: 43 Issue: 4 Pages: 1025-1035	
Impact Factor: 2.069 Quartile: 1 Citations: 121	
DOI: 10.1007/s10714-010-1121-2	
Noether symmetries and conserved quantities for spaces with a section of zero curvature	2011
<i>Ibrar Hussain Tooba Feroze</i>	
<i>Journal of Geometry and Physics</i> , Volume 61, Issue 3, Pages 658-662	
Impact Factor: 0.818 Quartile: 2 Citations: 19	
DOI: 10.1016/j.geomphys.2010.11.015	
New Conserved quantities for the Spaces of Different Curvatures	2010
<i>TOOBA SIDDIQUI</i>	
<i>Modern Physics Letters A</i> , Volume: 25 Issue: 13 Pages: 1107-1114	
Impact Factor: 0.99 Quartile: 3 Citations: 11	
DOI: 10.1142/S021773231003241X	
Another Representation for the Maximal Lie Algebra of $sl(n+2, \mathbb{R})$ in Terms of Operators	2009
<i>Asghar Qadir TOOBA SIDDIQUI</i>	
<i>Differential Equations and Nonlinear Mechanics</i> , Article ID 152698, 3 pages	
Impact Factor: N/A Citations: 2	
DOI: 10.1155/2009/152698	
UNIQUENESS OF THE McVITTIE SOLUTION AS PLANE SYMMETRIC SOURCELESS ELECTROMAGNETIC FIELD SPACETIMES	2008
<i>TOOBA FERZE Asghar Qadir M. ZIAD</i>	
<i>Modern Physics Letters A</i> , Modern Physics Letters A Vol. 23, No. 11, Pages 825-828, 2008	
Impact Factor: 1.334 Quartile: 2 Citations: 1	
DOI: doi.org/10.1142/S0217732308025437	
The connection between isometries and symmetries of geodesic equations of the underlying spaces	2006
<i>F. M. Mahomed Asghar Qadir Tooba Feroze</i>	
<i>Nonlinear Dynamics</i> , Volume: 45 Issue: 1-2 Pages: 65-74	
Impact Factor: 0.902 Quartile: 2 Citations: 79	
DOI: 10.1007/s11071-006-0729-y	
Group theoretic methods for approximate invariants and Lagrangians for some classes of $y_{x_0001} \#_{x_0002} F(t)y_{x_0003} \#_{y''} (y, y_{x_0003})$	2002
<i>A. H. Kara TOOBA SIDDIQUI</i>	
<i>International Journal of Non-Linear Mechanics</i> , International Journal of Non-Linear Mechanics, Volume: 37 Issue: 2 Pages: 275-280	
Impact Factor: 0.603 Quartile: 3 Citations: 35	
DOI: 10.1016/S0020-7462(00)00111-6	
The Classification of Plane Symmetric Spacetimes by Isometries	2001
<i>Asghar Qadir M. Ziad TOOBA SIDDIQUI</i>	
<i>JOURNAL OF MATHEMATICAL PHYSICS</i> , Volume: 42 Issue: 10 Pages: 4947-4955	
Impact Factor: 1.151 Quartile: 2 Citations: 67	
DOI: 10.1063/1.1385175	

Conference Proceedings

Classification of a Class of Plane Symmetric Static Spacetimes According to the Noether Symmetries <i>TOOBA FEROZE BISMAH JAMIL</i> <i>The Thirteenth Marcel Grossmann Meeting , res.country(196,)</i> Citations: N/A DOI: 10.1142/9789814623995_0294	2012
On the existence of new conserved quantities for the spaces of different curvatures <i>TOOBA SIDDIQUI</i> <i>The Twelfth Marcel Grossmann Meeting , res.country(75,)</i> Citations: N/A DOI: 10.1142/9789814374552_0353	2009

Editorial Activities

Arabian Journal of Mathematics Reviewed Papers for Journals Impact Factor: 0.9	2025
International Journal of Modern Physics A Reviewed Papers for Journals Impact Factor: 1.4	2024
Symmetry Reviewed Papers for Journals Impact Factor: 2.7	2024
Discrete and Continuous Dynamical Systems - Series S Reviewed Papers for Journals Impact Factor: 1.86	2024
Discrete and Continuous Dynamical Systems - Series S Reviewed Papers for Journals Impact Factor: 1.86	2024
Indian Journal of Physics Reviewed Papers for Journals Impact Factor: 1.7	2024
Arabian Journal of Mathematics Reviewed Papers for Journals Impact Factor: 1.2	2023
Arabian Journal of Mathematics Reviewed Papers for Journals Impact Factor: 1.2	2023
Symmetry Reviewed Papers for Journals Impact Factor: 2.94	2023
Symmetry-Basel Reviewed Papers for Journals Impact Factor: 2.940	2023
The European Physical Journal Plus Reviewed Papers for Journals Impact Factor: 3.758	2023
Arabian Journal of Mathematics Reviewed Papers for Journals Impact Factor: N/A	2023
Symmetry-Basel Reviewed Papers for Journals Impact Factor: 2.940	2023
The European Physical Journal Plus	2023

Reviewed Papers for Journals Impact Factor: N/A	
Arabian Journal of Mathematics Reviewed Papers for Journals Impact Factor: N/A	2023
Symmetry-Basel Reviewed Papers for Journals Impact Factor: 2.940	2022
Arabian Journal of Mathematics Reviewed Papers for Journals Impact Factor: N/A	2022
Symmetry-Basel Reviewed Papers for Journals Impact Factor: 2.940	2022
Arabian Journal of Mathematics Reviewed Papers for Journals Impact Factor: NA	2022
Symmetry-Basel Reviewed Papers for Journals Impact Factor: 2.940	2022
Symmetry-Basel Reviewed Papers for Journals Impact Factor: 2.940	2022
Reviewed Papers for Journals Impact Factor: 2.713	2022
Reviewed Papers for Journals Impact Factor: 2.713	2022
Reviewed Papers for Journals Impact Factor: 0	2022
Reviewed Papers for Journals Impact Factor: 4.13	2022
Reviewed Papers for Journals	2021
Reviewed Papers for Journals Impact Factor: 1.07	2021
Reviewed Papers for Journals Impact Factor: 4.379	2021
Reviewed Papers for Journals Impact Factor: 1.407	2021
Reviewed Papers for Journals	2021
Reviewed Papers for Journals	2020