Muhammad Asif Farooq

Associate Professor

School of Natural Sciences

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About

Dr. Muhammad Asif Farooq is working as Associate Professor in the School of Natural Sciences. Dr. Muhammad Asif Farooq has a PhD in Compressible Flows. Dr. Muhammad Asif Farooq has published 33 research articles & conference papers having a citation count of 574, carried out 1 projects and filed 0 intellectual property.

Qualifications

PhD in Compressible Flows 2008 - 2012
Norwegian University of Science and Technology , Norway

MPhil in Fluid Mechanics 2005 - 2007
Quaid-i-Azam University , Pakistan

MSc in Mathematics 2003 - 2005
Quaid-i-Azam University , Pakistan

Experience

Associate Professor 2021- Present
School of Natural Sciences

Assistant Professor 2013 - 2021
School of Natural Sciences

Assistant Professor 2013 - 2013
School of Natural Sciences

Assistant Professor 2012 - 2013
School of Natural Sciences

Awards

2008

HEC awarded scholarship to study in Norway.

Research Projects

National Projects

Development of Ocean Acoustic Modeling Software 2022
Funding Agency: NESCOM
Amount: PKR 100,000.00
Status: Approved_inprocess

International Projects

Research Articles

Application of computational fluid dynamics and physics informed neural networks in predicting rupture risk of thoracoabdominal aneurysms with fluid-structure interaction analysis 2025

Muhammad Abaid Ur Rehman Ozgur Ekici Muhammad Asif Farooq Rashid Mubashir Talha Sadaf Aamer

Chinese Journal of Physics, Volume 95, Pages 433-454

Impact Factor: 4.600 | **Quartile:** 1
DOI: https://doi.org/10.1016/j.cjph.2025.02.015

Fluid–structure interaction analysis of pulsatile flow in arterial aneurysms with physics-informed neural networks and computational fluid dynamics 2025

Ozgur Ekici Muhammad Asif Farooq Khayam Butt Michael Ajao-Olarinoye Zhen Wang Haipeng Liu Muhammad Abaid Ur Rehman

Physics of Fluids, Volume 37, Issue 3, Article Number 031913

Impact Factor: 4.100 | **Quartile:** 1 | **Citations:** 3

DOI: https://doi.org/10.1063/5.0259296

Numerical analysis of magnetohydrodynamic free stream and radiative heat transfer flow of nanofluid in a permeable medium over a linearly stretched cylinder with Arrhenius activation energy 2024

Muhammad Abaid ur Rehman Muhammad Asif Farooq Muhammad Irfan

Numerical Heat Transfer, Part B: Fundamentals, Pages 1-21

Impact Factor: 1.700 | **Quartile:** 3

DOI: https://doi.org/10.1080/10407790.2024.2362955

Thermal Radiation Effects on 2D Stagnation Point Flow of a Heated Stretchable Sheet with Variable Viscosity and MHD in a Porous Medium 2023

Muhammad Abaid ur Rehman Muhammad Asif Farooq Ahmed M Hassan

Frontiers in Heat and Mass Transfer, Pages 1-24

Impact Factor: 1.100 | **Quartile:** 4 | **Citations:** 2

DOI: https://doi.org/10.32604/fhmt.2023.044587

Numerical solution for cross nanofluid flow in porous medium over stretching cylinder under MHD and radiation effects 2023

Fatima Munazza Muhammad Asif Farooq

ZAMM-Zeitschrift fur Angewandte Mathematik und Mechanik, Pages 1-15

Impact Factor: 2.3 | **Quartile:** 1 | **Citations:** 1

DOI: https://doi.org/10.1002/zamm.202300151

Numerical and series solutions for Von-Kármán flow of viscoelastic fluid inspired by viscous dissipation and Joule heating effects 2023

Haleema Sadia Meraj Mustafa Hashmi Muhammad Asif Farooq

Alexandria Engineering Journal, Volume 75, Pages 181-190

Impact Factor: 6.626 | **Quartile:** 1 | **Citations:** 14

DOI: 10.1016/j.aej.2023.05.075

Insight into the dynamics of electro-magneto-hydrodynamic fluid flow past a sheet using the Galerkin finite element method: Effects of variable magnetic and electric fields 2022

Izza Qamar Muhammad Asif Farooq Muhammad Irfan Asif Mushtaq

Frontiers in Physics, Volume 10, Article Number 1002462

Impact Factor: 3.718 | **Quartile:** 2 | **Citations:** 4

DOI: https://doi.org/10.3389/fphy.2022.1002462

The effect of radiation and porosity on MHD nanofluid flow and heat transfer across a stretching cylinder 2022

Moniba Shams Saira Asghar Muhammad Asif Farooq

Waves in Random and Complex Media, Pages 1-19

Impact Factor: 4.051 | **Quartile:** 2 | **Citations:** 3

DOI: 10.1080/17455030.2022.2141913

Hybrid Deep Learning Framework for Reduction of Mixed Noise via Low Rank Noise Estimation 2022

Muhammad Asif Farooq Dai-Gyoung Kim Yasir Ali Asif Mushtaq Muhammad Ahmad Abdul Rehman Zahid Hussain Shamsi

IEEE Access, Volume 10, Pages 46738-46752

Impact Factor: 3.476 | **Quartile:** 2 | **Citations:** 7

DOI: 10.1109/ACCESS.2022.3170490

Magnetohydrodynamic Time-Dependent Bio-Nanofluid Flow in a Porous Medium with Variable Thermophysical Properties 2021

M. Irfan M. Asif Farooq Amaila Aslam A. Mushtaq Z. H. Shamsi

Mathematical Problems in Engineering, Volume 2021, Article ID 6666863, 16 pages

Impact Factor: 1.430 | **Quartile:** 3 | **Citations:** 3

DOI: https://doi.org/10.1155/2021/6666863

A Simplified Finite Difference Method (SFDM) Solution via Tridiagonal Matrix Algorithm for MHD Radiating Nanofluid Flow over a Slippery Sheet Submerged in a Permeable Medium 2021

M. Asif Farooq A. Salahuddin Asif Mushtaq M. Razzaq

Mathematical Problems in Engineering, Volume 2021, Article ID 6628009, 17 pages

Impact Factor: 1.430 | **Quartile:** 3 | **Citations:** 5

DOI: https://doi.org/10.1155/2021/6628009

Mixed Noise Removal Using Adaptive Median Based Non-Local Rank Minimization 2021

Dai-Gyoung Kim Mukhtar Hussain Muhammad Adnan M. Asif Farooq Z. H. Shamsi A. Mushtaq

IEEE Access , Volume 9, Pages 6438-6452

Impact Factor: 3.476 | **Quartile:** 2 | **Citations:** 19

DOI: 10.1109/ACCESS.2020.3048181

Computational analysis of unsteady and steady magnetohydrodynamic radiating nano fluid flows past a slippery stretching sheet immersed in a permeable medium 2020

Muhammad Asif Farooq Aisha Salahuddin Mudassar Razzaq Asif Mushtaq Sabir Hussain

Scientia Iranica , Volume 27 (6), Pages 3454-3466

Impact Factor: 1.435 | **Quartile:** 3 | **Citations:** 4

DOI: 10.24200/sci.2020.53055.3039

A Simplified Finite Difference Method (SFDM) for EMHD Powell–Eyring Nanofluid Flow Featuring Variable Thickness Surface and Variable Fluid Characteristics 2020

M. Irfan M. Asif Farooq T. Iqra A. Mushtaq Z. H. Shamsi

Mathematical Problems in Engineering, Volume 2020, Article ID 8823905, 22 pages

Impact Factor: 1.305 | **Quartile:** 4 | **Citations:** 4

DOI: https://doi.org/10.1155/2020/8823905

Unsteady MHD Bionanofluid Flow in a Porous Medium with Thermal Radiation near a Stretching/Shrinking Sheet 2020

M. Irfan M. Asif Farooq Asif Mushtaq Z. H. Shamsi

Mathematical Problems in Engineering, Volume 2020, Article ID 8822999, 14 pages

Impact Factor: 1.305 | **Quartile:** 4 | **Citations:** 19

DOI: https://doi.org/10.1155/2020/8822999

Modeling Heat Transfer in Fluid Flow Near a Decelerating Rotating Disk with Variable Fluid Properties 2020

Talat Rafiq Muhammad Asif Farooq Talat Rafiq Meraj Mustafa Hashmi

International Communications in Heat and Mass Trasnfer, Volume 116, Article Number 104673

Impact Factor: 5.683 | **Quartile:** 1 | **Citations:** 40

DOI: https://doi.org/10.1016/j.icheatmasstransfer.2020.104673

Numerical Comparison of Constant and Variable Fluid Properties for MHD Flow over a Nonlinearly Stretching Sheet 2020

Muhammad Asif Farooq Razia Sharif Asif Mushtaq Razia Sharif Asif Mushtaq

IAENG International Journal of Applied Mathematics, Volume 50, Issue 2, Pages 1-12

Impact Factor: -

DOI: -

Thermophoretic MHD free stream flow with variable internal heat generation/absorption and variable liquid characteristics in a permeable medium over a radiative exponentially stretching sheet 2020

Muhammad Irfan Muhammad Asif Farooq

Journal of Materials Research and Technology, Volume 9, Issue 3, Pages 4855-4866

Impact Factor: 5.039 | **Quartile:** 1 | **Citations:** 28

DOI: https://doi.org/10.1016/j.jmrt.2020.03.005

A New Computational Technique Design for EMHD Nanofluid Flow Over a Variable Thickness Surface With Variable Liquid Characteristics 2020

Muhammad Asif Farooq Muhammad Irfan Tousif Iqra

Frontiers in Physics, Volume 8, Article Number 66

Impact Factor: 3.560 | **Quartile:** 2 | **Citations:** 19

DOI: https://doi.org/10.3389/fphy.2020.00066

Magnetohydrodynamic Free Stream and Heat Transfer of Nanofluid Flow Over an Exponentially Radiating Stretching Sheet With Variable Fluid Properties 2019

M Asif Farooq Tousif Iqra Muhammad Irfan

Frontiers in Physics, Volume: 7, Article Number: 186

Impact Factor: 2.638 | **Quartile:** 2 | **Citations:** 40

DOI: https://doi.org/10.3389/fphy.2019.00186

The impact of variable fluid properties on hydromagnetic boundary layer and heat transfer flows over an exponentially stretching sheet 2019

Asif Mushtaq Muhammad Asif Farooq Razia Sharif Mudassar Razzaq

Journal of Physics Communications, Volume: 3, Issue: 9, Article Number: UNSP 095005

Impact Factor: 0 | **Citations:** 10

DOI: DOI:10.1088/2399-6528/ab31e2

Numerical assessment of Bödewadt flow and heat transfer over a permeable disk with variable fluid properties 2019

Meraj Mustafa Hashmi Muhammad Asif Farooq Talat Rafiq

Physica A: Statistical Mechanics and its Applications, Volume 534, Article 122138

Impact Factor: 2.924 | **Quartile:** 2 | **Citations:** 28

DOI: https://doi.org/10.1016/j.physa.2019.122138

Magnetohydrodynamic Study of Variable Fluid Properties and Their Impact on Nanofluid Over an Exponentially Stretching Sheet 2019

R Sharif M Asif Farooq A Mushtaq

Journal of Nanofluids, Volume 8, Issue 6, Pages 1249-1259

Impact Factor: 0 | **Citations:** 7

DOI: 10.1166/jon.2019.1671

Numerical simulations for the Toda lattices Hamiltonian system: Higher order symplectic illustrative perspective 2019

Asif Mushtaq Amna Noreen M Asif Farooq

PLoS ONE, Volume 14, Issue 4, Article Number e0215054

Impact Factor: 2.740 | **Quartile:** 2 | **Citations:** 1

DOI: 10.1371/journal.pone.0215054

Newtonian and Joule Heating Effects in Two Dimensional Flow of Williamson Fluid 2016

T Hayat A Shafiq M Asif Farooq HH Alsulami S A Shehzad

Journal of Applied Fluid Mechanics, Volume 9, Issue 4, Pages 1969-1975

Impact Factor: N/A | **Citations:** 19

DOI: 10.18869/acadpub.jafm.68.235.24646

On Comparison of Series and Numerical Solutions for Flow of Eyring-Powell Fluid with Newtonian Heating And Internal Heat Generation/Absorption 2015

T Hayat Shafqat Ali M Asif Farooq A Alsaedi

PLoS ONE, Volume 10, Issue 9, Article Number e0129613

Impact Factor: 3.057 | **Quartile:** 1 | **Citations:** 81

DOI: 10.1371/journal.pone.0129613

On model for three-dimensional flow of nanofluid: An application to solar energy 2014

Junaid Ahmed Kan M Mustafa T Hayat M A Farooq A Alsaedi S. J. Liao

Journal of Molecular Liquids, Volume 194, Pages 41-47

Impact Factor: 2.515 | **Quartile:** 2 | **Citations:** 110

DOI: 10.1016/j.molliq.2013.12.045

Stagnation-Point Flow of Nanofluid Through Different Utilization of Thermal Radiation Effect 2014

Meraj Mustafa Hashmi M. Asif Farooq T Hayat A Alsaedi S J Liao T Hayat A Alsaedi S J Liao

Journal of Computational and Theoretical Nanoscience, Volume 11, Issue 4, Pages 1107-1115

Impact Factor: 1.343 | **Quartile:** 3 | **Citations:** 4

DOI: 10.1166/jctn.2014.3469

Analytic and numeric solutions for stagnation-point flow with melting, thermal-diffusion and diffusion-thermo effects 2014

M Awais T Hayat M Mustafa K Bhattacharyya M Asif Farooq

International Journal of Numerical Methods for Heat & Fluid Flow, -

Impact Factor: 1.399 | **Quartile:** 2 | **Citations:** 8

DOI: 10.1108/HFF-10-2011-0220

Cartesian grid method for the compressible Euler equations using simplified ghost point treatments at embedded boundaries 2013

Muhammad Asif Farooq AA Skøin B Muller

Computers & Fluids, Volume 82, Pages 50-62

Impact Factor: 1.532 | **Quartile:** 2 | **Citations:** 7

DOI: 10.1016/j.compfluid.2013.03.024

Numerical and series solutions for stagnation-point flow of nanofluid over an exponentially stretching sheet 2013

M Mustafa M Asif Farooq T Hayat A Alsaedi

PLoS ONE, Volume 8, Issue 5, Article Number e61859

Impact Factor: 3.534 | **Quartile:** 1 | **Citations:** 57

DOI: 10.1371/journal.pone.0061859

Accuracy assessment of the Cartesian grid method for compressible inviscid flows using a simplified ghost point treatment 2011

Muhammad Asif Farooq B Muller

Rakenteiden Mekaniikka (Journal of Structural Mechanics), Vol. 44, No 3, 2011, Pages 279–291

Impact Factor: 0

Partial slip effects on the flow and heat transfer characteristics in a third grade fluid 2009

T Hayat M Asif Farooq T Javed M Sajid

Nonlinear Analysis: Real World Applications, Volume 10, Issue 2, Pages 745-755

Impact Factor: 2.381 | **Quartile:** 1 | **Citations:** 27

DOI: 10.1016/j.nonrwa.2007.11.001

Editorial Activities

2019

Reviewed Papers for Journals

Impact Factor: 1.699

2019

Reviewed Papers for Journals

Impact Factor: 0.863