Volume Issue Year

57 03 2025

ISSN: 1016-2526 E-ISSN: 1016-2526

PUNJAB UNIVERSITY JOURNAL OF

MATHEMATICS

https://pu.edu.pk/home/journal/pujm/#



Institute of Mathematics
University of the Punjab
Lahore, 54590
Pakistan

Email: pujm.math@pu.edu.pk

Punjab University Journal of Mathematics

Editor In Chief: Managing Editor:

Prof. Dr. Ghazala Akram Dr. Saima Arshed Managerial Secretary: Dr. Sumaira Hussain

University of the Punjab, Lahore University of the Punjab, Lahore University of the Punjab, Lahore

Vol. 57 Issue 03 2025 Print & E ISSN: 1016-2526

SCOPE

- Punjab University Journal of Mathematics (PUJM) is published electronically by Institute of Mathematics, University of the Punjab, Lahore.
- The frequency of the journal is monthly.
- PUJM prefers to publish the quality work in the field of Mathematical Sciences.

EDITORIAL BOARD

- Saied Abbasbandy, Imam Khomeini International University, Qazvin, Iran
- Muhammad Akram, University of the Punjab, Lahore- Pakistan
- **Tofigh Allahviranloo**, Istinye University, Istanbul, Turkey
- **Ismat Beg**, Lahore School of Economics, Lahore- Pakistan
- Wieslaw Dudek, Wroclaw University of Science and Technology Wroclaw, Poland
- Malik Zawwar Hussain, University of the Punjab, Lahore-Pakistan
- Young Bae Jun, Gyeongsang National University, Korea
- Cengiz Kahraman, Istanbul University, Istanbul, Turkey
- **Shoaib Ud Din**, University of the Punjab, Lahore-Pakistan
- Muhammad Sharif, University of the Punjab, Lahore-Pakistan
- Shahid S. Siddiqi, University of the Punjab, Lahore-Pakistan
- Hari M. Srivastava, University of Victoria, Victoria, British Columbia, Canada

ASSOCIATE EDITORS

- Haydar Akca, Abu Dhabi University, UAE
- Imran Aziz, University of Peshawar, Pakistan
- **Dumitru Baleanu**, Cankaya University, Turkey
- **Metin Basarir**, Sakarya University, Turkey
- Necdet Bildik, Manisa Celal Bayar University, Turkey
- **Kit Chan**, Bowling Green State University, USA
- **Bijan Davvaz**, Yazd University, Iran
- Ting-Song Du, China Three Gorges University, China
- Vieru Dumitru, Gheorghe Asachi Technical University of Iasi, Romania
- Ji-Huan He, Soochow University, Suzhou China
- Kai Hormann, University of Lugano Lugano, Switzerland
- Andrew Ledoan, University of Tennessee at Chattanooga, Tennessee USA
- Muhammad Aslam Malik, University of the Punjab, Lahore, Pakistan
- Salah Mehdi, University of Lorraine, France

- Ram Mohapatra, University of Central Florida, USA
- Choonkil Park, Hanyang University, Republic of Korea
- Haitao Qi, Shandong University, China
- Nor-Haniza Sarmin, Universiti Teknologi Malaysia, Malaysia
- Alex R. Sepúlveda C., Universidad de La Frontera, South America
- Muhammad Shabir, Quaid-i-Azam University, Islamabad, Pakistan
- Azad Akhter Siddiqui, National University of Sciences and Technology, NUST Pakistan Haris Skokos, University of Cape Town, South Africa
- Gunter Steinke, University of Canterbury, New Zealand

ABSTARCTING & INDEXING

The articles of Punjab University Journal of Mathematics are included in the following databases/resources:

- 1. EBSCO
- 2. Google Scholar
- 3. Mathematical Reviews (MathSciNet)
- 4. Zentralbalatt MATH Database (zbMATH)
- 5. Genamics JournalSeek
- 6. Master Journal List-Emerging Sources Citation Index
- 7. Web of Science
- 8. Eurasian Scientific Journal Index

PUNJAB UNIVERSITY JOURNAL OF MATHEMATICS

CONTENTS

Volume 57		Issue 03
Sr. No.	Title & Authors	Page No.
1	Advancements in Fuzzy Research in Pakistan: A Bibliometric Perspective between 1989 and 2023 Muhammad Saqlain, José M. Merigó, Poom Kumam, Muhammad Riaz	219
2	Walker's Parabolic equation and its sensitivity Hira Ashaq, Muhammad Imran Asjad, Sheikh Zain Majid, Waqas Ali	265
3	Faridi Energy of Fuzzy Hypersoft Sets with Application in Machine Learning for Decision Making Muhammad Ahmad Javed, Muhammad Saeed	283
4	On Novel Extension of n-Polynomial Pre-invex Functions and Related Post-Quantum Integral Inequalities with Application <i>Tariq Nawaz, Azeem Shahzad</i>	309
5	A class of non-stationary ternary 4-point subdivision schemes based on iterations Zeze Zhang, Hongchan Zheng	340