



**Institute of Mathematics
University of the Punjab
Lahore**



**Seminar Series (43)
Enforced from March 2026**

Sr. No.	Name of Speaker	Date & Day	Title of Presentation
1.	Prof. Dr. Ghazala Akram	04-03-2026 (Wednesday)	Inauguration Speech
2.	Maria Sarfraz		A Fuzzy Mathematical Model Based on the Generalized Hukuhara Derivative
3.	M. Touqeer Mufti		Analytical Models for Gravitational Collapse in $f(Q, Lm)$ Gravity
4.	Shahbaz Ahmad		Wormhole Solution in Modified $f(R, T)$ Gravity
5.	Muhammad Adnan		A Study on Rotating Non-singular Charged Black Hole Models.
6.	Mueen Ahmad	05-03-2026 (Thursday)	Thermodynamics of RN–AdS Black Holes with Thermal Fluctuations and Nonlinear Effects
7.	Muhammad Naeem		Analytic Models of Gravitational Collapse in Charged Black Holes
8.	Muhammad Waseem		The Birth of a Ghost Stars in Modified Gravity
9.	Samra	11-03-2026 (Wednesday)	Integrated CRITIC–COPRAS Approach Leveraging Dombi Aggregation Operators for Socio-Economic Planning
10.	Shahida Riasat		Data-Driven CRITIC–SWARA–CODAS Framework for Circular Economy and Recycling
11.	Urva Nawaz		AI-Driven Entropy–RANCOM–MARCOS Model Enhancing Sustainable Renewable Energy Systems
12.	Zummer Babar	12-03-2026 (Thursday)	IoT-Driven Fuzzy Clustering for Enterprise Green Bank Financing using q-ROF Rough Sets
13.	Haram Khalid		Static Spherically Symmetric Wormholes in Einstein-KR Gravity
14.	Hanaf Saleem		From Transformers to Agentic AI: Evolution of Language-Based AI Systems
15.	Musannaf Ali	18-03-2026 (Wednesday)	Smart Vaccination Planning Using Graph Neural Networks and Reinforcement Learning
16.	Muhammad Rizwan		TBA
17.	Kiran Jabbar		TBA
18.	Muqadas Rani	19-03-2026 (Thursday)	Global Attention meets Image Dehazing: A Vision Transformer Solution
19.	Fatima Tariq		Analysis of CNN Architectures for Computer Vision
20.	Ammar Ahmad		Classifications of G-circuits and Modular Group Actions



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21.	Ayesha Ayub	01-04-2026 (Wednesday)	Constructing New Constacyclic Codes over Z_4
22.	Malik Muhammad Fahad		Construction of New Negacyclic Codes
23.	Asma Fareed		Geometric Sets and Resolvability in $Z[\sqrt{d}]$
24.	Amer Siddique		TBA
25.	Rimsha Ramzan	02-04-2026 (Thursday)	Graph-Based Learning in Neural Networks
26.	Mahnoor Mansoor		GNN for Temporal and Spatial Modelling
27.	Saba Kousar		Hypergraph-Based Learning: A Modern Approach to Complex Data
28.	Saleh Noreen	08-04-2026 (Wednesday)	Modeling of Influenza Transmission and its Analysis
29.	Maryam Sarwar		Investigation of Modified Boger Nanofluid Flow in Stretchable Channel
30.	Muhammad Umair		TBA
31.	Saira Akhtar		Mathematical Analysis of an Epidemic Model with Pollution-Induced Susceptibility
32.	Ayesha Mujahid	09-04-2026 (Thursday)	A Comparative Study of Analytical and Approximate Solutions of Time-Fractional Benjamin-Ono Equation
33.	Maryam Shabbeer		Residual Power Series Approximation and Modified tanh-expansion for the Solution of Time-Fractional Soliton Neuron Model
34.	Rabia Nazar		Soliton Dynamics of Time-fractional Thin-film Ferroelectric Material Equation using Analytical and Approximate Methods
35.	Ayesha	15-04-2026 (Wednesday)	Circuits under the Action of Two Generator Infinite Group
36.	Ayeshan Iqbal		Primitive Representations and Mobius Group Actions on Quadratic Irrational Numbers.
37.	Taqdees		TBA
38.	Shazmeena Nisar		Graph Transformers for Modeling Complex Spatial Relationships in Earth Observation Data
39.	Muzammel Mubeen	16-04-2026 (Thursday)	An Analytical Study of Wave Interaction Phenomena for Higher-order Boussinesq Model
40.	Shaysta Kiran		Interaction Solutions via Hirota Bilinear Approach
41.	Tahreem Fatima		Soliton Solutions for the nonlinear Evolution Equation
42.	Laiba Mehmood	22-04-2026 (Wednesday)	An Integrated Decision Making Method Based on Circular Pythagorean Fuzzy Rough Number
43.	Sadia Irshad		Extended Entropy-MARCOS Method Based on Circular Intuitionistic Fuzzy Rough Number



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44.	Zurva Rashid		Enhanced Decision Making Approach Based on Circular Spherical Fuzzy Rough Number
45.	Maidah Imran		Decision Making Method Based on Circular Intuitionistic Fuzzy Rough Number
46.	Wajeeha Anjum	23-04-2026 (Thursday)	Analytical Approximation of an Undamped Fractional Cubic-Quintic-Septic Duffing Oscillator via Residual Power Series Method
47.	Hiba Amjad		An effective bilinear Neural Network Framework for Exact Solutions of a (3+1) Dimensional Shallow Water-Like Nonlinear Evolution Equation.
48.	Moiza Asad		Solution of Fuzzy Fractional Partial Differential Equations via Fuzzy Adomian Decomposition Method
49.	Arham Fatima	29-04-2026 (Wednesday)	A Single Deep Residual CNN for Multi-Task Image Restoration
50.	Sadia Munir		Construction of Exact Solutions to Nonlinear Evolution Equations Using an Exp-Function Technique.
51.	Zurasha Zaryab		Fuzzy Homotopy Perturbation Transform Method for Uncertain Fractional Dispersive Wave Equations
52.	Minahil Ashfaq	30-04-2026 (Thursday)	Parameter Estimation and Sensitivity Analysis for HIV/HPV Co-infection Model
53.	Aneeza Fatima		Exact Soliton and Breather Solutions of the Nonlocal CLL Equation.
54.	Kiran Jabbar		Construction of New Wave Patterns for the (3+1)-dimensional Kadomtsev-Petviashvili Equation Using a Couple of Integrating Architectures
55.	Salman Ali		TBA
56.	Sidra Qayyum	06-05-2026 (Wednesday)	Investigation of Dusty-Boger Nanofluid Flow over a Stretched Sheet
57.	Iqra Sabir		Anisotropic Ghost Star Formation in Modified Gravity
58.	Ujala Aftab Khokhar		Dynamics of Complexity and Isotropization through Gravitational Decoupling in $f(T)$ Gravity
59.	Muhammad Rizwan		A Study on Dark Matter Supported Traversable Wormholes in General Relativity
60.	Freeha Qamar	07-05-2026	Machine Learning-Driven Recursive Feature Elimination for Feature Selection and Evaluating Risk Assessment



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61.	Mehak Batool	(Thursday)	AI-Driven CRITIC-SAWARA- CRADIS Approach for Optimizing Renewable Energy and Circular Economy
62.	Toqeer Jameel		Fuzzy Machine Learning-Driven MEREC-SWARA-AROMAN for Warehouse Management Systems
63.	Iqra Siddique	13-05-2026	Dynamical and Thermodynamic Aspects of Black Holes in Anti-de Sitter Spacetime
64.	Seerat Ijaz	(Wednesday)	Viable Compact Stars Models in $f(Q)$ Gravity
65.	Sana Saleem		Stability Analysis of the Einstein's Universe
66.	Ujala Aftab Khokhar		Investigations of Gravitationally Decoupled less-Complex Celestial Bodies
67.	Aqsa Farhat	14-05-2026 (Thursday)	Coupling Parameter Effects on High-Mass Stable Compact Stars
68.	Muhammad Rizwan		A Study on Physical and Geometrical Characteristics of the Wormhole Models
69.	Faisal Hayat	20-05-2026	Examining the Solitonic Behavior of $(3 + 1)$ Dimensional Yu-Tuda-Sasa-Fukuyama Equation using Analytical Technique
70.	Muhammad Zubair Raza	(Wednesday)	Solitary wave solutions and multistability analysis of the $(1 + 1)$ -D Estevez-Mansfield-Clarkson model
71.	Yasir Yasin		Integrating Fuzzy Neural Networks for Enhancing Predictive Maintenance and Energy Efficiency
72.	Nabiah		Artificial Intelligence-Driven Human-Centric Predictive Maintenance in Healthcare Integrating K Means Clustering Analysis
73.	Muhammad Awais Raza	21-05-2026 (Thursday)	Analyzing Graphs Arising from Exponential Congruence Relations
74.	Shajeea Jamil		A Dual Spherical Fuzzy Rough Cloud-Based Integrated CRITIC-MULTIMOORA Model
75.	Maria Sarfraz		Fuzzy Mathematical Modeling of Drug Administration through Numerous Compartments in Human Body
76.	Muhammad Zubair Raza		Soliton Dynamics and Qualitative Analysis of Nonlinear Long-short Wave Interaction Model
77.	Muhammad Awais Raza	22-05-2026 (Friday)	Exploring Graph Structures through Power-Congruence Relations
78.	Muhammad Shahbaz		Nonlinear Wave Dynamics of $(3+1)$ -Dimensional Combined pKP-BKP Equation by using Neuro-



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			Bilinear Bell Polynomial Approach and Iterative Darboux Transformation
79.	Prof. Dr. Ghazala Akram	22-05-2026 (Friday)	Closing speech

Note: The above-mentioned seminars will be held at 01:00PM in the Seminar Hall of Institute of Mathematics, University of the Punjab, Lahore. All faculty members and research scholars (MPhil/PhD) are invited to attend these seminars.

Dr. Zeeshan Yousaf
Coordinator
Institutional Seminar Series

Prof. Dr. Ghazala Akram
Director