

**The 8th Biennial International Group Theory Conference
(8BIGTC 2025)
26 – 29 July, 2025**

Universitas Gadjah Mada (UGM), Indonesia

SATURDAY, 26 July 2025

Time	Program	Venue
7.30 – 8.30	Registration	Auditorium 7 th Floor Building D

Time	Program	Venue
8.30 – 9.00	Opening Ceremony	Auditorium 7 th Floor Building D

Time	Title	Plenary Speaker 1	Venue
9.00 – 9.40	Generalizing the Enhanced Power Graph of a Group with Respect to Automorphisms	Prof. Ismail Güloğlu Doğuş University, Istanbul, Turkey	Auditorium 7 th Floor Building D

Time	Title	Plenary Speaker 2	Venue
9.45 – 10.25	The Classification of Finite Simple Groups from the Perspective of "Big Mathematics"	Prof. Rebecca Waldecker Martin-Luther Universität Halle-Wittenberg, Germany	Auditorium 7 th Floor Building D

Time	Program	Venue
10.25 – 10.55	Tea / Coffee Break	7 th Floor Building D

Time	Title	Invited Speaker 2	Venue
10.55 – 11.25	Structure-Preserving Transformations: Recent Updates on the Homological Analysis of Bieberbach Groups	Prof. Nor Haniza Sarmin Universiti Teknologi Malaysia, Malaysia	Auditorium 7 th Floor Building D

Time	Title	Invited Speaker 2	Venue
11.30 –12.00	Independence Complexes of Finite Groups	Prof. Andrea Lucchini University of Padua, Italy	Online/ Auditorium 7 th Floor Building D

Time	Program	Venue
12.00 – 13.30	Lunch	2 nd Floor Building D

Parallel Session I

Time	Title	Speaker	Venue
13.30 – 13.50	Average Degree of Characters in Finite Groups	Kamal Azizheris University of Tabriz, Iran	Online/ Auditorium 7 th Floor Building D
	A Generalized Method for Constructing 1-Designs and Codes from Finite Group Structures	Hadiseh Saydi North-West University, South Africa	Room A 2 nd Floor Building D
	New Set Partitioning of Quotient Rings of Eisenstein integers	Abdul Hadi Universitas Gadjah Mada, Indonesia	Room B 2 nd Floor Building D
13.50 – 14.10	Subgroup Generating Bipartite Graph of Finite Groups	Rajat Kanti Nath Tezpur University, India	Online/ Auditorium 7 th Floor Building D
	Some Characteristics of The Order Divisor Graphs Related to Generalized Quaternion Group	Agista Surya Bawana Universitas Diponegoro, Indonesia	Room A 2 nd Floor Building D
	Construction a Quotient Semiring over a Boolean Semiring	Aisyah Nur Adillah Universitas Diponegoro, Indonesia	Room B 2 nd Floor Building D
14.10 – 14.30	A Special Class of Graphs Emerging From Quaternion Groups	Aneela University of Punjab, Pakistan	Online/ Auditorium 7 th Floor Building D
	Normality of Product of Two Subgroups of a Finite Group and Associated Graph	Amir Kamal Amir Hasanuddin University, Indonesia	Room A 2 nd Floor Building D
	Nilpotent Derivatives on Matrix Rings	Bernadhita Herindri Samodera Utami University of Lampung, Indonesia	Room B 2 nd Floor Building D

Continued Parallel Session I

Time	Title	Speaker	Venue
14.30 – 14.50	On Connectivity of Two-sided Group Graphs	Behnam Khosravi Institute for Advanced Studies in Basic Sciences, Iran	Online/ Auditorium 7 th Floor Building D
	The Construction of an Abelian Group from The Set of Triangular Fuzzy Numbers	Aura Fitria Maharani Universitas Diponegoro, Indonesia	Room A 2 nd Floor Building D
	Secret Sharing Scheme Based on Skew Polynomials with Cheating Detection	Berny Pebo Tomasouw Institut Teknologi Bandung, Indonesia	Room B 2 nd Floor Building D
14.50 – 15.10	Power graphs and Green's relations of semigroups	Bahman Khosravi Qom University of Technology, Iran	Online/ Auditorium 7 th Floor Building D
	Designs and Codes from the Character Table of a Finite Group	Clarence K Mokalapa University of Limpopo, South Africa	Room A 2 nd Floor Building D
	Isomorphism Theorems in Nearings Based on Fractal Ideals	Chaithra B J Manipal Institute of Technology, India	Room B 2 nd Floor Building D
15.10 – 15.30	-	-	Online/ Auditorium 7 th Floor Building D
	Metric Dimension of k-Token Graphs Constructed from Identity Graphs of Finite Groups	Deddy Rahmadi Universitas Islam Negeri Sunan Kalijaga, Indonesia	Room A 2 nd Floor Building D
	Nil Derivations on Polynomial Rings and Polynomial Modules	Fitriani University of Lampung, Indonesia	Room B 2 nd Floor Building D

Time	Program	Venue
15.30 – 16.00	Tea / Coffee Break	7 th Floor Building D

Time	Program	Venue
16.30 – 19.00	Social Event “Tribute Evening for Prof. Ahmad Erfanian” and Dinner	Auditorium 7 th Floor Building D

SUNDAY, 27 July 2025

Time	Title	Plenary Speaker 3	Venue
8.30 – 9.10	Self-normalizing Subgroups	Prof. Mark L. Lewis Kent State University, United States of America	Online/ Auditorium 7 th Floor Building D

Time	Title	Invited Speaker 3	Venue
9.15 – 9.45	On the Mutually Commuting n-Tuples with Respect to an Automorphism	Prof. Pudji Astuti Institut Teknologi Bandung, Indonesia	Auditorium 7 th Floor Building D

Time	Program	Venue
9.45 – 10.15	Tea / Coffee Break	7 th Floor Building D

Time	Title	Invited Speaker 4	Venue
10.15 – 10.45	Matrix-Based Representation of Z-Fuzzy Soft-Covering Multigranulation Fuzzy Rough Sets and Its Application to MAGDM Using AHP	Dr. Manimaran Vellore Institute of Technology, India	Auditorium 7 th Floor Building D

Parallel Session II

Time	Title	Speaker	Venue
10.50 – 11.10	A Useful Encryption of Discrete Graphs on Symmetric Groups	Sufyan Asif Islamia University of Bahawalpur, Pakistan	Online/ Auditorium 7 th Floor Building D
	The Structure of Cayley Graph of Generalized Quaternion Group of Valency Less than or Equal 3	Arizka Yuliana Universitas Gadjah Mada, Indonesia	Room A 2 nd Floor Building D
	The Non-Distributing Graph of a Nearing	Dhanyashree Vinay Manipal Institute of Technology, India	Room B 2 nd Floor Building D
	LLM-assisted Search of 17 Wallpaper Group Symmetry of Yogyakarta Batik Pattern	Agah D. Garnadi Indonesia	Room C 2 nd Floor Building D
	A Comparison on the Commutativity Degree of Groups and Lie Algebras	Afsaneh Shamsaki Ferdowsi University of Mashhad, Iran	Online/ Auditorium 7 th Floor Building D

11.10 – 11.30	Prime Power Order Cayley Graph of Certain Cyclic Groups and Their Topological Indices	Hemappriya Shanmuganathan Universiti Teknologi Malaysia, Malaysia	Room A 2 nd Floor Building D
	The Cleanness Property of The Integers Modulo n Z_n	Dheva Ufiz 'Aliyah Universitas Diponegoro, Indonesia	Room B 2 nd Floor Building D
	The F-Index and First Zagreb Index of a Graph Associated to the Ring of Integers Modulo a Product of Prime Powers	Ghazali Semil Ismail Universiti Teknologi Mara, Malaysia	Room C 2 nd Floor Building D
11.30 – 11.50	-	-	Online/ Auditorium 7 th Floor Building D
	On the Braiding Degree and Relative Braiding Degree of Subgroups in Finite Groups	Hubbi Muhammad Universitas Pamulang, Indonesia	Room A 2 nd Floor Building D
	Prime and Semiprime Ideals in Near Rings	Enrico Rambe Manalu Institut Teknologi Bandung, Indonesia	Room B 2 nd Floor Building D
	On Hypervector Spaces over Hyperfields	Harikrishnan Panackal Manipal Institute of Technology, India	Room C 2 nd Floor Building D
11.50 – 12.10	One-matching bi-Cayley Graphs	Mojgan Afkhami University of Neyshabur, Iran	Online/ Auditorium 7 th Floor Building D
	-	-	Room A 2 nd Floor Building D
	Isomorphism Properties of Clean Graphs over Z_n and Brief Structural Insight into $M_2(Z_n)$	Felicia Servina Djuang Universitas Gadjah Mada, Indonesia	Room B 2 nd Floor Building D
	The Application of Group Theory on Planetary Motion	Ifan Setiawan Yuntoro Universitas Diponegoro, Indonesia	Room C 2 nd Floor Building D

Time	Program	Venue
12.10 – 13.00	Lunch	2 nd Floor Building D

Time	Program	Venue
13.00 – 19.00	Excursion	-

MONDAY, 28 July 2025

Time	Title	Plenary Speaker 4	Venue
8.30 – 9.10	Three Methods of Group Generations	Prof. T.T. Seretlo Northwest University, South Africa	Auditorium 7 th Floor Building D

Time	Title	Invited Speaker 5	Venue
9.15 – 9.45	On Relation Between Representation of Group G Over an F -Vector Space V and Representation of Group G over The $F[x]$ -Module V via a Linear Transformation $T : V \rightarrow V$	Prof. Sri Wahyuni Universitas Gadjah Mada, Indonesia	Auditorium 7 th Floor Building D

Time	Program	Venue
9.45 – 10.15	Tea / Coffee Break	7 th Floor Building D

Time	Title	Invited Speaker 6	Venue
10.15 – 10.45	Equivariant Persistent Homology via Group Actions	Prof. Intan Muchtadi Institut Teknologi Bandung, Indonesia	Auditorium 7 th Floor Building D

Parallel Session III

Time	Title	Speaker	Venue
10.50 – 11.10	On the Vanishing Prime Graph of Strongly Monolithic Characters	Gamze Akar İstinye University, Türkiye	Online/ Auditorium 7 th Floor Building D
	Cayley Graph of Generalized Quaternion Group for Valencies 1,2,3 and 4	Arif Munandar Universitas Islam Negeri Sunan Kalijaga, Indonesia	Room A 2 nd Floor Building D
	The Construction of Soft Rings from Fuzzy Rings	Irma Sari Yulianti Universitas Gadjah Mada, Indonesia	Room B 2 nd Floor Building D
11.10 – 11.30	On Zeros of Strongly Monolithic Characters of Finite Groups	Sultan Bozkurt Güngör University of Gebze Technical, Türkiye	Online/ Auditorium 7 th Floor Building D
	Auto-Characteristic Graph of Dihedral Group D_{2n}	Maisuri Pratiwi Suwardy Institut Teknologi Bandung, Indonesia	Room A 2 nd Floor Building D
	On Strong Fuzzy Resolving Set of Fuzzy Helm and Friendship Graphs	Isnaini Rosyida Universitas Negeri Semarang, Indonesia	Room B 2 nd Floor Building D

11.30 – 11.50	Structural and Spectral Properties of the Enhanced Power Order Product Prime Graph Associated with Dihedral Groups	Nor Muhainiah Mohd Ali Universiti Teknologi Malaysia, Malaysia	Online/ Auditorium 7 th Floor Building D
	Prime Quartic Order of Cayley Graph over Cyclic Group	Titik Suparwati Universitas Gadjah Mada, Indonesia	Room A 2 nd Floor Building D
	Prime Subsemimodules of Semimodules Over Semiring Noncommutative	Tita Nuril Istiqomah Universitas Diponegoro, Indonesia	Room B 2 nd Floor Building D
11.50 – 12.10	A Study in the n-th Schur Multiplier and Direct Limits of Lie Algebras	Mahboubeh Alizadeh Sanati Golestan University, Iran	Online/ Auditorium 7 th Floor Building D
	On Lie Algebra Homomorphism from 2-Dimensional Non Abelian Lie Algebra	Wed Giyarti Universitas Islam Negeri Sunan Kalijaga, Indonesia	Room A 2 nd Floor Building D
	The Hull of Linear Code from Boolean Function Arising from Simplicial Complex over F_2	Juli Loisiana Butar-Butar Universitas Gadjah Mada, Indonesia	Room B 2 nd Floor Building D

Time	Program	Venue
12.10 – 13.30	Lunch	2 nd Floor Building D

Parallel Session IV

Time	Title	Speaker	Venue
13.30 – 13.50	A Kind of Coprime Graph over Groups	Mahboube Nasiri Ferdowsi University of Mashhad, Iran	Online/ Auditorium 7 th Floor Building D
	Ethnomathematics Study: Classification of Wallpaper Group Patterns On Egyptian Cultural Ornaments	Raja Fathimah Hervina Institut Teknologi Bandung, Indonesia	Room A 2 nd Floor Building D
	Superfluous Ideals of Completely Reducible N-Groups	Kuncham Syam Prasad Manipal Institute of Technology, India	Room B 2 nd Floor Building D
	The Unit-zero Divisor Graph of a Commutative Ring	Vika Yugi Kurniawan Universitas Gadjah Mada, Indonesia	Room C 2 nd Floor Building D
	On the Codegrees of Strongly Monolithic Characters of Finite Groups	Utku Yılmaztürk İstanbul University, Türkiye	Online/ Auditorium 7 th Floor Building D

13.50 – 14.10	On Fractal Structure of R-Groups	Kedukodi Babushri Srinivas Manipal Institute of Technology, India	Room A 2 nd Floor Building D
	On Seminear-Module Factor of Seminear-ring	Meryta Febrilian Fatimah Universitas Sulawesi Barat, Indonesia	Room B 2 nd Floor Building D
	On Hermitian Adjacency and Hermitian Antiadjacency Matrices of Mixed Graphs	Muhammad Irfan Arsyad Prayitno Universitas Gadjah Mada, Indonesia	Room C 2 nd Floor Building D
14.10 – 14.30	On the Generalized Outerplanar Cayley Graphs of Finite Groups	Z. Barati Kosar University of Bojnord, Iran	Online/ Auditorium 7 th Floor Building D
	Smarandache Cancellative Semigroups Admitting Conjugates	Laila Karimatul Fadhilah Universitas Diponegoro, Indonesia	Room A 2 nd Floor Building D
	On Orthogonal Projections On Semi Inner Product Spaces and Their Applications to Develop Gap Metric	Nicholas Ramos Richardo Institut Teknologi Bandung, Indonesia	Room B 2 nd Floor Building D

Continued Parallel Session IV

Time	Title	Speaker	Venue
14.30 – 14.50	On C-Prime Graph of a Semiring	Lavanya S Manipal Institute of Technology, India	Online/ Auditorium 7 th Floor Building D
	From Finite Groups to Abstract Fusion: A Study of Saturated Fusion Systems	Muhammad Arinal Haq Indonesia	Room A 2 nd Floor Building D
	Clean Semirings from Semimodule Endomorphisms	Shinta Nur Alfiana Universitas Diponegoro, Indonesia	Room B 2 nd Floor Building D
	Efficient Blind Signature Scheme Based on Mersenne Prime and Finite Field	Sethupathi S Vellore Institute of Technology, India	Room C 2 nd Floor Building D
14.50 – 15.10	On γ -Derivations in (α, β) – 3-Prime Narrings	Aishwarya S. Manipal Institute of Technology, India	Online/ Auditorium 7 th Floor Building D
	Graphs with Respect to Standard Elements of a Lattice	N Aishwarya Nayak Manipal Institute of Technology, India	Room A 2 nd Floor Building D

	Normal Operator on Semi-Inner Product Spaces	Nurhabibah Institut Teknologi Bandung, Indonesia	Room B 2 nd Floor Building D
15.10 – 15.30	Prime Ideals of Module over Seminearring (S-Semigroup)	Kavitha Koppula Manipal Institute of Technology, India	Online/ Auditorium 7 th Floor Building D
	Classification of Subsets of F_{2^n} with Respect its Closedness	Vadiraja Bhatta G. R. Manipal Academy of Higher Education, India	Room A 2 nd Floor Building D
	The Relationship Between r-Clean Rings and Clear Rings	Nurul Fadhilah Universitas Diponegoro, Indonesia	Room B 2 nd Floor Building D

Time	Program	Venue
15.30 – 16.00	Tea / Coffee Break	2 nd Floor Building D

TUESDAY, 29 July 2025

Time	Title	Invited Speaker 7	Venue
8.30 – 9.00	A Generalization of Perfect Groups under an Automorphism	Prof. Ahmad Erfanian Ferdowsi University of Mashhad, Iran	Auditorium 7 th Floor Building D

Time	Title	Invited Speaker 8	Venue
9.05 – 9.35	Cayley Graphs over Cyclic Groups of Particular Valencies	Prof. Yeni Susanti Universitas Gadjah Mada, Indonesia	Auditorium 7 th Floor Building D

Time	Program	Venue
9.40 – 10.10	Tea / Coffee Break	2 nd Floor Building D

Parallel Session V

Time	Title	Speaker	Venue
10.10 – 10.30	Isomorphisms between Two Non-commuting Graphs with Respect to an Automorphism	Z. Ibeygi Ferdowsi University of Mashhad, Iran	Online/ Auditorium 7 th Floor Building D
	Group Endomorphisms That Descend to Quotients	Vinay Madhusudanan Manipal Institute of Technology, India	Room A 2 nd Floor Building D
	Group and Cogroup Object on Categories	Nikken Prima Puspita Universitas Diponegoro, Indonesia	Room B 2 nd Floor Building D
10.30 – 10.50	Probabilistic Aspects of Automorphism-Conjugacy in Groups	M. Ganjali Ferdowsi University of Mashhad, Iran	Online/ Auditorium 7 th Floor Building D
	On the Lattice of Expansion Maps	Pallavi P Manipal Institute of Technology, India	Room A 2 nd Floor Building D
	Semigroup with Algebraic Multiplication Operation of Triangular Fuzzy Numbers	Suffi Nuralesa Universitas Diponegoro, Indonesia	Room B 2 nd Floor Building D
10.50 – 11.10	Prime Ideals and Quasigroup Structures in BG-Algebras	Puspa Nur Afifah Universitas Islam Negeri Sultan Maulana Hasanuddin, Indonesia	Online/ Auditorium 7 th Floor Building D
	Abelianization Analysis of a Six-Dimensional Bieberbach Group with Quaternion Point Group of Order Eight	Siti Afiqah Mohammad Universiti Teknologi Mara, Malaysia	Room A 2 nd Floor Building D

	On Partial Orders and Convex Ideals in $M_n(N)$ -group N_n	Tapatee Sahoo Manipal Institute of Technology, India	Room B 2 nd Floor Building D
11.10 – 11.30	Prime Square Order Cayley Graph on Cyclic Group	Siti Khabibah Universitas Diponegoro, Indonesia	Online/ Auditorium 7 th Floor Building D
	Extremal Degrees in Graphs Inspired by Tudung Saji Structures	Siti Norziahidayu Amzee Zamri Universiti Sultan Zainal Abidin, Malaysia	Room A 2 nd Floor Building D
	A Group Abelian from the Set of Ring Derivations	Ivan Adrian Wijaya Universitas Diponegoro, Indonesia	Room B 2 nd Floor Building D
11.30 - 11.50	On the Energy and Laplacian Energy of Non-Normal Cyclic Subgroup Graphs in Some Dihedral Groups	Nabilah Fikriah Rahin Universiti Pertahanan Nasional Malaysia, Malaysia	Online/ Auditorium 7 th Floor Building D
	On 2-Absorbing Ideals of Nearrings	Yashaswini H L Manipal Institute of Technology, India	Room A 2 nd Floor Building D

Time	Program	Venue
12.00 – 12.50	Closing	Auditorium 7 th Floor Building D

Time	Program	Venue
12.50 – 13.50	Lunch	7 th Floor Building D