Aijaz Ahmad Malla – Résumé

Contact Information

Dr. Aijaz Ahmad Malla
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Research Interests

- Algebraic Graph Theory

- Spectral Graph Theory

Education

2016-2020   Ph.D. in Mathematics - University of Kashmir, Srinagar.

- **Thesis Title: Rings and Their Zero Divisor Graphs**.

- **PhD Defense: 10-11-2020**.

- **Thesis Advisor: Prof. Shariefuddin Pirzada**.

2011, 2012 — Masters in Mathematics - University of Kashmir, Hazratbal Srinagar.

2008, 2009, 2010— Bachelors at - Government Degree College, Sopore.

Other Achievements

October, 2016   Qualified National Eligibility Test (JRF) for Assistant Professor- CSIR, New Delhi

November, 2016   Qualified J&K State Eligibility Test for Assistant Professor- J&K SET Agency

M. Sc Dissertations Supervised

2020	A Study on Automorphism Groups.
2020	Simple Groups and their Applications
2021	A Study on Graph Spectra
2022	A Study on Laplacain Spectrum of Graphs

Teaching Experience

June, 2020- December, 2021: Assistant Professor (Adhoc) at Central University of Kashmir, Ganderbal.

January 2022 - May 2023 : Assistant Professor at Lovely Professional Univeristy Punjab, India.

May 2023 - December 2023 : Lecturer (Adhoc) at Department of Mathematics, University of Kashmir, Hazratbal Srinagar.

June 2024 - June 2025 : Assistant Professor at Jammu and Kashmir Higher Education Department (GCET Jammu).

June 2025 - Present: Assistant Professor at Jammu and Kashmir Higher Education Department.

$\rightarrow$ June 2025 - Present : GOVERNMENT DEGREE COLLEGE, SOPORE.

Courses Taught: Abstract Algebra, Matrices and Linear Algebra, Graph Theory and Discrete Mathematics, Differential Equations, Mathematical Statistics, Fourier Transform, Laplace Transform, Differential Geometry, Real Analysis, Measure Theory, Probability Theory.

Publications

1. *Distance signless Laplacian spectrum with applications to zero divisor graphs of rings*, (Available online at Linear and Multi Linear Algebra).

2. *Upper dimension and bases of zero-divisor graphs of commutative rings,* AKCE International Journal of Graphs and Combinatorics.

3. *Annihilating-ideal graphs of commutative rings*, Asian-European Journal of Mathematics, **13, 7** 2050121 (2020).

4. *On zero-divisor graphs of the rings $\mathbb{Z}_n$*, Afrika Matematika, **31** (2020), 727-737.

5. *On upper dimension of some graphs and their bases sets*, Discrete Mathematics Letters, **3** (2020), 37-43.

6. *Metric and upper dimension of zero divisor graphs associated to commutative rings*, Acta Univ. Sapientiae, Informatica, **12,1** (2020) 84–101.

7. *On graphs with same metric and upper dimension*, Discrete Mathematics, Algorithms and Applications Vol. **13**, No. 02, 2150015 (2021)

8. Zero-divisor graphs of unitary R-modules over commutative rings, AKCE International Journal of Graphs and Combinatorics, **19(1)**, 69-73.

9. On distance signless Laplacian eigenvalues and trace norm of zero divisor graphs of commutative rings, AIMS Mathematics, **7(7)** 12635–12649.

10. On compressed zero divisor graphs associated to the ring of integers modulo n, Carpathian Journal of Mathematics, Vol. 15 No. 2 (2023).

Conferences & Talks

1. November 19, 2017, Presented a Paper in a National Conference at Department of Mathematics organized by Kashmir Mathematical Society.

2. Presented a Paper in Conference **"Recent trends in pure and applied mathematics"** on December 19, 2017 at Department of Mathematics, University of Kashmir.

3. Attended and presented a paper in 13th JK Science Congress from 2nd to 4th April, 2018.

4. Participated and presented a paper in **"International Conference on Discrete Mathematics and its Applications to Network Science"** from July 07-July 10-2018 at BITS Pilani, Goa.

5. Participated and presented a paper in the **"International Conference on Mechanical Engineering"** from 14th to 15th September 2018 organised by the School of Mechanical engineering, Shri Mata Vaishno Devi Univeristy Katra, Jammu.

6. Presented a paper in international conference on **"Contemporary Issues in Engineering, Agriculture, Applied Sciences and Humanities (EAH-2019)"** at NIT Srinagar on 22nd-23rd June, 2019 and received the Best Paper Presentation Award.

Workshops & Seminars

1. Dec. 2016 Workshop on **Ramanajun Day** 22 December at Jammu Kashmir Institute of Mathematical Sciences at Srinagar, Jammu and Kashmir. .

2. September 2017, Attended a Workshop on **Research Methodology** at University of Kashmir, Srinagar.

3. July 2017, **Instructional School on Linear Algebra**, Department of Mathematics Indian Institute of Technology, Gandhinagar India.

4. Attended a 2-day national level workshop on **"Geometrical Interpretation of Mathematical Concepts"** at department of mathematics KU from 28th-29th August 2018.

5. Attended IST workshop on **"Algebraic Graph Theory"** at Department of Mathematics, Banasthali Vidyapith, Rajasthan, India, October-2019.

6. Workshop on **"Algebra and Analysis"** from 17-18 June 2019 at Central University of Kashmir.

7. Attended a 2-day workshop on **"Graph theory, Combinatorics and Applications (GTCA)"** at College of Science, Department of Mathematics, United Arab Emirates University from 09-10 October 2019.

Faculty Development Programmes

1. **NPTEL Course** — Basic Linear Algebra, Feb-Apr 2022, 8 Weeks.

2. **NPTEL Course** — Discrete Mathematics, Jan-Apr 2023, 12 Weeks.

Computer Skills

- **Computer Literacy**

  Symbolic Programming (Mathematica, Matlab), Typesetting Programing (Mik Tex, Latex), Web Designing, Image Designing, Presentation Program (MS Power Point, Keynote, Corel Presentation, Latex Presentation) MS Word, Adobe Photoshop, HTML.

Referees

Name   Prof. Shariefuddin Pirzada
Institute   University of Kashmir, Srinagar
Position   Professor
Contact   pirzadasd@kashmiruniversity.ac.in

Name   Prof. S. P. Redmond
Institute   Department of Mathematics and Statistics Eastern Kentucky University Richmond, KY USA
Position   Professor
Contact   shane.redmond@eku.edu

Name   Dr. Mohammad Imran
Institute   Department of Mathematics and Statistics, United Arab Emiratus University, PO 15551 Al Ain UAE.
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Contact   m.imran658@uaeu.ac.ae