Dr. Suhail Gulzar Mattoo

https://spcollege.edu.in/Main/ProfilePage.aspx?Profile=P3232

https://www.researchgate.net/profile/Suhail-Gulzar



Employment History

August 2016 – Present Assistant Professor, Department of Higher Education, J&K

October 2023–Present: Sri Pratap College, M.A. Road Srinagar.

June 2020-October 2023: Govt. College of Engineering & Technology, Safapora.

March 2019–June 2020 : Govt. Degree College, Anantnag.

August 2016-March 2019: Sri Pratap College, M.A. Road Srinagar.

March 2015-August 2016

Contractual Assistant Professor, Department of Mathematics, Islamic University of Science & Technology, Awantipora

Education, Eligibility Tests & Fellowships

Education

2011 – 2014 Ph.D., University of Kashmir Complex Analysis.

Thesis title: On an inequality of S. Bernstein and estimates for the moduli of the zeros of a polynomial

2005 – 2007 **M.Sc. Mathematics**.

Eligibility Tests

June 2011 | JRF-NET, Council of Scientific and Industrial Research

November 2016 **JK-SET**, University of Kashmir

Awards & Fellowships

January 2012–December 2013 Junior Research Fellowhip awarded by Council of Scientific and Indus-

trial Research

January 2014-October 2014 Senior Research Fellowship awarded by Council of Scientific and Industrial Research

Research Supervision

2019–2023 **PhD Co-supervisor**

Scholar Name: Dr. Liyaqat Ali

University: Department of Mathematics, University of Kashmir

Thesis title: On an operator preserving inequalities and the location of the zeros of a polynomial.

Research Supervision (continued)

2019–2025 **PhD Co-supervisor**

Scholar Name: Dr. Mudassir Ahmad Bhat

University: Department of Mathematics, Chandigarh University

Thesis title: Development of some operators preserving inequalities and estimates of zero-bounds for

polynomials.

Research Publications

Journal Articles

- M. A. Bhat, R. Kumar, and **S. Gulzar**, "On Arestov's inequalities concerning the Shur–Szegő composition of polynomials," *Periodica Mathematica Hungarica*, vol. 88, no. 2, pp. 300–311, 2024, (Indexed: **Web of Science** & **SCOPUS**; **IF: 0.6**). ODI: 10.1007/s10998-023-00558-x.
- M. Shafi, N. A. Rather, and **S. Gulzar**, "A note on Visser's inequality," *Izvestiya Vysshikh Uchebnykh Zavedenii. Matematika*, no. 11, pp. 51–60, 2024, (Indexed: **Web of Science** & **SCOPUS**; **IF: 0.5**. DOI: 10.26907/0021-3446-2024-11-51-60.
- M. Shafi, N. A. Rather, and **S. Gulzar**, "Estimates for the zeros of a polynomial using matrix inequalities," *Filomat*, vol. 38:33, pp. 11 929–11 938, 2024, (Indexed: **Web of Science** & **SCOPUS**; **IF: 0.9**). ODI: https://doi.org/10.2298/FIL2433929S.
- F. Bhat, N. Rather, and S. Gulzar, "Inequalities for the generalized derivative of a complex polynomial," *Publications de l'Institut Mathematique*, vol. 114, no. 128, pp. 71–80, 2023, (Indexed: Web of Science & SCOPUS; IF: 0.3). ODI: 10.2298/PIM2328071B.
- M. A. Bhat, R. Kumar, and S. Gulzar, "On Bernstein-type inequalities for polynomials with restricted zeros," *The Journal of Analysis*, vol. 31, no. 4, pp. 2603–2611, 2023, (Indexed: Web of Science & SCOPUS; IF: 0.7). ODI: 10. 1007/s41478-023-00587-2.
- **S. Gulzar**, N. Rather, and K. Thakur, "Annular regions containing all the zeros of a polynomial," *Indian Journal of Pure and Applied Mathematics*, pp. 1–6, 2023, (Indexed: **Web of Science** & **SCOPUS**; **IF: 0.4**). DOI: 10.1007/s13226-023-00515-x.
- 7 N. Rather, A. Bhat, and **S. Gulzar**, "Certain Bernstein-type L_p inequalities for polynomials," *Acta Scientiarum Mathematicarum*, vol. 89, no. 3, pp. 545–557, 2023, (Indexed: **Web of Science** & **SCOPUS**; **IF: 0.5**). \mathfrak{O} DOI: 10 . 1007 / s44146-023-00074-x.
- L. Ali, N. Rather, and S. Gulzar, "Gauss Lucas theorem and Bernstein-type inequalities for polynomials," *Acta Universitatis Sapientiae, Mathematica*, vol. 14, no. 2, pp. 211–219, 2022, (Indexed: Web of Science & SCOPUS; IF: 0.5). ODI: 10.2478/ausm-2022-0013.
- **S. Gulzar**, M. A. Bhat, and R. Kumar, "On operators preserving inequalities between polynomials," *North-Western European Journal of Mathematics*, no. 8, pp. 187–195, 2022, Indexed: **SCOPUS**). **O** URL: https://nwejm.univ-lille.fr/index.php/nwejm/article/view/15.
- **S. Gulzar**, N. Rather, and M. Wani, "On Visser's inequality concerning an estimation of polynomial coefficients," *Russian Mathematics*, vol. 66, no. 3, pp. 9–15, 2022, (Indexed: Web of Science & SCOPUS; IF: 0.5). ODI: 10.3103/S1066369X22030033.
- N. A. Rather, **S. Gulzar**, and A. A. Bhat, " L_p inequalities for the growth of polynomials with restricted zeros," *Archivum Mathematicum*, vol. 58, no. 3, pp. 159–167, 2022, (Indexed:**Web of Science** & **SCOPUS**; **IF: 0.5**). **6** URL: https://emis.de/journals/AM/22-3/index.html.
- R. N. Ahmad, **S. Gulzar**, and B. Aijaz, "On Zygmund-type inequalities concerning polar derivative of polynomials," *Ural Mathematical Journal*, vol. 7, no. 1 (12), pp. 87–95, 2021, (Indexed: **SCOPUS**). ODI: 10.15826/umj. 2021.1.007.

- N. Rather, I. Dar, and **S. Gulzar**, "On the zeros of certain composite polynomials and an operator preserving inequalities," *The Ramanujan Journal*, vol. 54, pp. 605–612, 2021, (Indexed: **Web of Science** & **SCOPUS**; **IF: 0.6**).

 DOI: 10.1007/s11139-020-00261-2.
- N. A. Rather, L. Ali, and **S. Gulzar**, " L_p inequalities for the polar derivative of a lacunary-type polynomial," *Vestnik of Saint Petersburg University Mathematics*, vol. 8, no. 3, pp. 502–510, 2021, (Indexed: **SCOPUS**). \mathfrak{G} DOI: 10.21638/spbu01.2021.311.
- **S. Gulzar**, N. Rather, and F. Bhat, "The location of critical points of polynomials," *Asian-European Journal of Mathematics*, vol. 12, no. 07, p. 1950 087, 2019, (Indexed: **Web of Science** & **SCOPUS**; **IF: 0.5**). ODI: 10.1142/S1793557119500876.
- N. Rather and **S. Gulzar**, "A note on a recent attempt to prove Sendov's conjecture," arXiv preprint arXiv:1903.04026, 2019.
- **S. Gulzar** and N. Rather, "On a composition preserving inequalities between polynomials," *Journal of Contemporary Mathematical Analysis (Armenian Academy of Sciences)*, vol. 53, pp. 21–26, 2018, (Indexed: **Web of Science** & **SCOPUS**; **IF: 0.4**). ODI: 10.3103/S1068362318010041.
- N. Rather, S. Gulzar, and K. Thakur, "Some inequalities concerning integral estimates for polynomials," *Journal of Interdisciplinary Mathematics*, vol. 21, no. 7-8, pp. 1481–1490, 2018, (Indexed: Web of Science & SCOPUS; IF: 1.1).

 DOI: 10.1080/09720502.2015.1086115.
- **S. Gulzar** and N. Rather, " L_p inequalities for the Schur-Szegő composition of polynomials.," *Acta Mathematica Hungarica*, vol. 151, no. 1, 2017, (Indexed: **Web of Science** & **SCOPUS**; **IF: 0.7**). DOI: 10.1007/s10474-016-0668-0
- S. Gulzar and N. Rather, "Inequalities concerning the polar derivative of a polynomial," *Bulletin of the Malaysian Mathematical Sciences Society*, vol. 40, pp. 1691–1700, 2017, (Indexed: **Web of Science** & **SCOPUS**; **IF: 1.1**). DOI: 10.1007/s40840-015-0183-4.
- **S. Gulzar**, N. Rather, and K. Thakur, "Bounds for the zeros of complex-coefficient polynomials," *Annales mathématiques du Québec*, vol. 41, pp. 105–110, 2017, (Indexed: **Web of Science** & **SCOPUS**; **IF: 0.5**). DOI: 10.1007/s40316-016-0064-8.
- S. Gulzar, "On estimates for the coefficients of a polynomial," Comptes Rendus Mathématique, vol. 354, no. 4, pp. 357–363, 2016, (Indexed: Web of Science & SCOPUS; IF: 0.79). ODOI: 10.1016/j.crma.2016.01.018.
- **S. Gulzar**, "Some Zygmund type inequalities for the sth derivative of polynomials," *Analysis Mathematica*, vol. 42, pp. 339–352, 2016, (Indexed: **Web of Science** & **SCOPUS**; **IF: 0.6**). ODI: 10.1007/s10476-016-0403-7.
- S. Gulzar and N. Rather, "Location of the zeros of polynomials," *Thai Journal of Mathematics*, vol. 13, no. 2, pp. 461–465, 2015, (Indexed: Web of Science & SCOPUS; IF: 0.3). OURL: https://thaijmath2.in.cmu.ac.th/index.php/thaijmath/article/view/523.
- N. Rather, **S. Gulzar**, and K. Thakur, "Growth of a polynomial not vanishing inside a disk," *Non Linear Functional Analysis and Applications*, vol. 20, no. 3, pp. 489–489, 2015, (Indexed: **SCOPUS**). **6** URL: http://nfaa.kyungnam.ac.kr/journal-nfaa/index.php/NFAA/article/view/349.
- N. Rather, **S. Gulzar**, and K. Thakur, "Rate of growth of polynomials not vanishing inside a disk," *Nonlinear Functional Analysis and Applications*, vol. 20, no. 1, pp. 97–107, 2015, (Indexed: **SCOPUS**). OURL: http://nfaa.kyungnam.ac.kr/journal-nfaa/index.php/NFAA/article/view/279.
- **S. Gulzar** and N. A. Rather, "Refinements of some inequalities concerning the polar derivative of a polynomial," *Functiones et Approximatio Commentarii Mathematici*, vol. 51, no. 2, pp. 269–283, 2014, (Indexed: **Web of Science**). ODI: 10.7169/facm/2014.51.2.3.
- N. Rather, S. Ahangar, and **S. Gulzar**, "On the polar derivative of a polynomial," *Matematicki Vesnik*, vol. 67, pp. 56–60, 2014, (Indexed: **Web of Science** & **SCOPUS**; **IF: 0.4**). URL: http://www.vesnik.math.rs/landing.php?p=mv151.cap&name=mv15106.
- N. Rather and **S. Gulzar**, "Generalization of an inequality involving maximum moduli of a polynomial and its polar derivative," *Nonlinear Functional Analysis and Applications*, vol. 19, no. 2, pp. 213–221, 2014, (Indexed: **SCOPUS**).

 **Ourl: http://nfaa.kyungnam.ac.kr/journal-nfaa/index.php/NFAA/article/view/232.

- N. Rather, S. Gulzar, and K. Thakur, "Some integral mean estimates for polynomials," New Zealand Journal of Mathematics, vol. 44, pp. 83–91, 2014, (Indexed: SCOPUS). OURL: https://shorturl.at/nuZ2v.
- N. A. Rather, F. A. Bhat, and **S. Gulzar**, "Some L_r inequalities involving the polar derivative of a polynomial," *Applied Mathematics E-Notes*, vol. 14, pp. 116–122, 2014, (Indexed: **Web of Science**; **IF: 0.4**). \mathcal{O} URL: https://www.math.nthu.edu.tw/~amen/.
- N. A. R. Gulzar and Suhail, "Certain compact generalizations of well known polynomial inequalities," Australian Journal of Mathematical Analysis and Applications, vol. 10, pp. 1–16, 2013, (Indexed: SCOPUS). URL: https://ajmaa.org/cgi-bin/paper.pl?string=v10n1/V10I1P6.tex.
- N. Rather and S. Gulzar, "Some compact generalizations of well-known inequalities for polynomials," *Nonlinear Functional Analysis and Applications*, vol. 17, no. 3, pp. 361–381, 2013, (Indexed: SCOPUS). URL: http://nfaa.kyungnam.ac.kr/journal-nfaa/index.php/NFAA/article/view/39.
- N. A. Rather, **S. Gulzar**, and S. Saheel, "New operator preserving integral inequalities between polynomials," *Non-linear Functional Analysis and Applications*, vol. 18, no. 2, pp. 227–251, 2013, (Indexed: **SCOPUS**). URL: http://nfaa.kyungnam.ac.kr/journal-nfaa/index.php/NFAA/article/view/175.
- N. A. Rather and S. Gulzar, "On annulus containing all the zeros of a polynomial," *Applied Mathematics E-Notes*, vol. 13, pp. 155–159, 2013, (Indexed: Web of Science; IF: 0.4). OURL: https://www.math.nthu.edu.tw/~amen/.

Conference Proceedings

- F. A. Mala, **S. Gulzar**, and R. Poonia, "A new bound for the enumeration of transitive relations," in *AIP Conference Proceedings*, AIP Publishing, vol. 2735, 2023. ODOI: https://doi.org/10.1063/5.0140194.
- F. A. Mala, **S. Gulzar**, and R. K. Poonia, "Inequalities concerning transitive and equivalence relations," in *Advances in Pure and Applied Algebra: Proceedings of the CONIAPS XXVII International Conference*, 2021, p. 3. ODI: https://doi.org/10.1515/9783110785807-001.

Conferences, Workshops & Training Programs

Conferences

- Participated & present a paper titled "On an operator on the space of polynomials" in 3-day International (Online) Conference "Recent Trends in Mathematics" (22-24th December, 2021 organized by Hansraj College, University of Delhi.
- Participated in a National conference on "*Recent trends in pure and Applied Mathematics*" organized by Department of Mathematics, University of Kashmir, Srinagar on December 19, 2017.
- Presented paper at 10th JK Science Congress, Kashmir University 01-03 October 2013.
- Participated in the 9th JK Science Congress, Kashmir University 17-19 September 2012.

Conferences, Workshops & Training Programs (continued)

Refresher and Induction Courses

- Successfully completed Two Week interdisciplinary Refresher course on ICT in Academics and Research during 16th December 2024 to 30th December 2024 organised under Malviya Mission Scheme by Hansraj College, University of Delhi.
- Successfully completed **NPTEL-AICTE** Faculty Development Program on "Algebra-I during July-October 2024.
- Successfully completed NPTEL-AICTE Faculty Development Program on "Functional Analysis during January-April 2022.
- Successfully completed one-week online International Faculty Development Program on "Advanced Linear Algebra" organised by Miranda House, University of Delhi from 27th September to 01 October 2021 under PMMMNMTT.
- Successfully completed two-week refresher course in "*Mathematics*" from 16-30 March 2021 organized by Ramanujan College, University of Delhi under PMMMNMTT.
- Participated in one-week online Faculty Development Program on "*E-Learning*" organised by E& ICT Academy, IIT Guwahati from 7–14 September 2020.
- Attended a national level one week faculty training & development special online e-learning tools workshop with hands-on training from 28th May 2020 to 3rd June 2020 organized by MAKKSKILLS.
- Attended a three-week "General Orientation Course" at the Institute of Advanced Studies in Education, Srinagar from 01/10/2016 to 24/10/2016.
- Attended a one-week short-term course on "Research Methodology in Science (Using Statistical Softwares)"
 organized by UGC-Academic staff college, University of Kashmir Srinagar, 27th August to 1st September,
 2012.

■ Workshops

- Participated in the "Workshop on geometry of Banach spaces & its applications" held at IIIT Allahabad during December 31, 2021 to January 02, 2022.
- Attended a one-day workshop on "Quantum Computing & Artificial Intelligence" on 20th March, 2019 organized by Cluster University Srinagar at S.P. College.
- Participated in 2-day National workshop on "Contemporary Approaches to Teacher Education" organised by Cluster University Srinagar on 11th & 12th April 2018.
- Attended a two-day National Seminar on "Mathematics & its applications" organized by the Department of Mathematics, Govt. Degree College, Pulwama during March 15-16, 2016.
- Co-organized a two-day workshop entitled "*IMPACT, Math Festival (2016)*" with the Department of Mathematics, Islamic University of Science & Technology, Awantipora on March 19-20, 2016.
- Participated in the "Instructional Schools for Lecturers in Linear Algebra" conducted in CEMS, Department of Mathematics, SSJ Campus, Kumaun University, Almora during 17th March 2014 to 29th March 2014.
- Attended a National-level workshop on "*Mathematica and related softwares*" organized by the Jammu and Kashmir Institute of Mathematical Sciences, Srinagar during February 24th to 2nd March, 2014.
- Participated in an Advanced-level workshop on "Non-linear Functional Analysis and its Applications" (NFAA-2013) sponsored by DST Government of India, held at the University of Kashmir, Srinagar during October 21-29, 2013.
- Attended workshop and conference on "Recent Advances in Operator Theory and Operator Algebras" at the Indian Statistical Institute, Bangalore 31 December 2012 to 11 January 2013.
- Participated in the *9th Annual Foundation School-I* held at Chennai Mathematical Institute, December 03-29, 2012.
- Participated in the "*Two-day Telescope/Spectroscope making workshop*" jointly organized by the Department of Physics, Kashmir University and IUCAA Pune on 7th and 8th October 2009 at Kashmir.

Skills & Administrative Experience

Skills

Languages Reading, writing and speaking competencies for English, Urdu and Kashmiri.

Coding Python, R, LaTeX

Misc. Academic research, teaching, training, Large typesetting and publishing.

Administrative Experience

Development Committees, in different roles including Convener and

Member.

January 2024–December 2024 Coordinator, IGNOU Study Centre 1209, Sri Pratap College

References

Professor N.K. Govil,
Department of Mathematics & Statistics,
Auburn University,
Alabama USA