Dr. MOHD YOUSF MIR

Email: myousf@cukashmir.ac.in | myousf.nadigam@gmail.com

Phone: +91 7889528808

Address: Nadigam, Budgam, Jammu & Kashmir, India – 191111

PROFESSIONAL SUMMARY

A dedicated researcher in Complex Function Theory and Approximation Theory, with expertise in the geometry of meromorphic functions and the location of zeros of polynomials. Awarded Ph.D. in Mathematics from Central University of Kashmir, with extensive teaching experience and a strong publication record.

ACADEMIC QUALIFICATIONS

Ph.D. in Mathematics, Central University of Kashmir (Awarded: 18-10-2024)

Thesis: Geometry of Meromorphic Functions and on the Location of Zeros of Polynomials

M.Phil. in Mathematics, Central University of Kashmir

Specialization: Complex Function Theory

M.Sc. in Mathematics, Central University of Kashmir (86.7% - Gold Medalist)

B.Sc. in Mathematics (75.5%)

Higher Secondary Education (10+2) – 95.2%

Awarded INSPIRE Scholarship by Govt if India (F. No. 4648/2011)

TEACHING & RESEARCH EXPERIENCE

Guest Faculty, Central University of Kashmir (Oct 2024 – Dec 2024)

Teaching Assistant, Central University of Kashmir (May 2018 – Dec 2018)

DST-INSPIRE Fellow, Govt. Of India (Award No. DST/INSPIRE/03/2018/000525)

RESEARCH INTERESTS

Complex Function Theory

Approximation Theory

Location of Zeros of Polynomials

Inequalities for Polynomials and Rational Functions

PUBLICATIONS

1. Inequalities for a Polynomial Whose Zeros Are Within or Outside a Given Disk, Korean J. Math., 30(2022), 231-238. DOI: http://dx.doi.org/10.11568/kjm.2022.30.2.231

2. Inequalities for a Class of Rational Functions, Int. J. Nonlinear Anal. Appl. (In Press). DOI: http://dx.doi.org/10.22075/ijnaa.2021.25521.3042

3. Inequalities for Meromorphic Functions Not Vanishing Outside the Disk, J. Math. Sci, 266(2022), 526-533. DOI: https://doi.org/10.1007/s10958-022-05868-y

4. Inequalities for a Class of Composite Polynomials, Gulf Journal of Mathematics, 14(1) (2023), 139-147. DOI: https://doi.org/10.56947/gjom.v14i1.946

5. Generalizations of Some Differential Inequalities for Polynomials, J. Cont. Math. Anal., 38(2023), 282-288. DOI: https://doi.org/10.3103/S1068362323040076

6. Refinements of Some Turán-Type Inequalities for Meromorphic Functions, Anal. Math. Phy., 26(2023). DOI: https://doi.org/10.1007/S13324-023-00789-8

7. Inequalities for a Class of Meromorphic Functions Whose Zeros Are Within or Outside a Given Disk, Ural Math. Journal, 9(2023), 104-112. DOI: https://doi.org/10.15826/umj.2023.1.008

8. Generalizations of Certain Well-Known Inequalities for Rational Functions, Prob. Anal. Issues Anal., 12(30)(2023), 25-33. DOI: https://doi.org/15393/j3.art.2023.11810

9. Improvement of Some Inequalities for Rational Functions, J. Math. Sci., 271(2023), 546-554. DOI: https://doi.org/10.1007/s10958-023-06639-z

10. Bounds for the Zeros of a Polynomial, Appl. Math. E-notes, 23(2023), 192-202. ISSN: 1607-2510.

11. Growth of Polynomials Not Vanishing Inside the Disk, Boletim da SociedadeParanaense de Math., 42(2024). DOI: https://doi.10.5269/bspm.64811

12. Inequalities for Meromorphic Functions with Prescribed Poles, Ufa Math. Journal, 16(2024), 127-137.

13. Extremal Problems of Turan-Type Involving the Location of All Zeros of a Class of Rational Functions, Vestnik of St. Petersburg State University, 57(2024), 219-225.

14. Refinements of Some Bernstein-Type Inequalities for Rational Functions, J. Indian Math. Society , 92(2025), 133-141.

15. Inequalities for the Derivative of a Polynomial with Restricted Zeros, Southeast Asian Bulletin of Math. (Accepted).

16. Some Inequalities for Polynomials with a Multiple Zero at the Origin, Boletim da SociedadeParanaense de Math. (Accepted).

17. Application of Gauss-Lucas Theorem to the Inequalities for Polynomials, Vestnik of St. Petersburg State University (Accepted).

18. Some Generalizations Involving the Polar Derivative for an Inequality of Paul Turan, Kragujevac J. Math. 50(2025), 1017-1025 .

19. Inequalities Concerning Rational Functions with Prescribed Poles, J. Indian Math. Society, 92(2024), 49-60.

CONFERENCES & PRESENTATIONS

1. International Conference on Polynomial Inequalities, University of Jammu, May 2023

   Paper Presented: Inequalities for a Class of Composite Polynomials.

2. International Conference at Baba Ghulam Shah Badshah University, Rajouri, March 30-31, 2022

   Paper Presented: Some Lower Bound Estimates for Meromorphic Functions.

3. International Conference at Rathinam College of Arts and Science, Coimbatore, January 11, 2021

Paper Presented:Inequalities for Polynomials with Prescribed Poles.

4. International Conference at Institute of IMBIC, Kolkata, December 21-23, 2022

Paper Presented: Extension of Some Polynomial Inequalities to Rational Functions.

5. International Conference at Shri Mata Vaishno Devi University, Katra, J&K, December 21-22, 2020

Paper Presented:* On the Growth of Maximum Modulus of Rational Functions with Prescribed Poles.

6. International Conference at MaharshiDayanand University, Rohtak, December 22, 2020

Paper Presented: Extension of Some Inequalities of Polynomials to Rational Functions.

7. International Conference at PPG College of Arts and Science, Coimbatore, India, June 24-25, 2021

Paper Presented: Bounds for the Derivative of Rational Functions.

WORKSHOPS & SEMINARS

1. Faculty Development Workshop on Analysis & Applications, University of Jammu (in collaboration with HRDC), January 16-20, 2023.

2. National Workshop on Algebra & Analysis, Department of Mathematics, Central University of Kashmir, June 18-20, 2019.

3. National Seminar on Mathematics & Its Applications, Central University of Kashmir, June 21, 2019.

4. Three-Day Seminar on Science Translation into Kashmiri, Organized by University of Kashmir and Central University of Kashmir, August 15-17, 2022.

5. Three-Day Seminar on Urdu to Kashmiri Translation, Organized by University of Kashmir and Central University of Kashmir, April 10-12, 2022.

AWARDS & ACHIEVEMENTS

Gold Medallist, M.Sc. Mathematics, Central University of Kashmir.

INSPIRE Scholarship Awardee, Department of Science & Technology, Govt. Of India.

SKILLS & EXPERTISE

Mathematical Analysis & Proof Writing

LaTeX& Scientific Writing

Research & Data Analysis

Teaching & Academic Mentoring

Subjects taught: Probability and Statistics, Testing of Hypothesis, Operation Research, Ordinary differential equations, Complex Analysis, Real Analysis, Basic Algebra.

REFERENCES