Renu Shekhawat

Stat-Math Unit, Indian Statistical Institute, 8th Mile, Mysore Road, RVCE Post, Bengaluru - 560 059
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Education

Indian Statistical Institute, Bangalore Centre — Bengaluru, India
Philosophiae Doctorate in Mathematics — Jul 2019-present
Supervisor : Dr. Soumyashant Nayak

University of Rajasthan — Jaipur, India
Master of Mathematics — Aug 2016 - Aug 2018

Sophia Girls' College — Ajmer, India
Bachelor of Mathematics — Jul 2013 - Jul 2016

Research Interests

Functional analysis, Operator algebras

Publications

- S. Nayak, R. Shekhawat; *A stronger form of Yamamoto's theorem II : Spectral operators* (2024).
  (available at : https://arxiv.org/abs/2410.16318
- S. Nayak, R Shekhawat; *On the Jordan-Chevalley-Dunford decomposition of operators in type I Murray-von Neumann algebras* (2025).
  (available at https://arxiv.org/abs/2506.17227).

Fellowships / Scholarships

- **Junior Research Fellowship**
  (Declined due to acceptance of the Institute fellowship at ISI)
  - University Grants Commission, Government of India. — Dec 2018
  - Council of Scientific and Industrial Research, Department of Science and Technology, Government of India. — Jun 2017
- **Inspire Scholarship for Higher Education**
  Department of Science and Technology, Government of India. — Jul 2013 - Jul 2018

Teaching Assistant

- Real Ananlysis, B.math(I) - Semester I — Aug 2025 - Nov 2025
  Instructor : Prof. B. V. Rajarama Bhat

- Function spaces, B.math(III) - Semester I — Aug 2023 - Nov 2023
  Instructor : Prof. Soumyashant Nayak
- Complex Analysis, M.Math(I) - Semester II — Jan 2022 - May 2022
  Instructor : Prof. Ramesh Sreekantan
- Complex Analysis, B.Math(III) - Semester I — Sep 2021 - Dec 2021
  Instructor : Prof. Mathew Joseph

Conferences / Workshops Attended

- **Young Mathematicians in C^* Algebras (YMC^*A) 2025** — Odense, Denmark
  University of Southern Denmark (SDU), Odense — July 21 - 25, 2025
- **International Workshop on Operator Theory and its Applications (IWOTA) 2025** — Enschede, Netherlands
  University of Twente, Enschede — July 14 - 18, 2025
- **20th Workshop: Noncommutative Probability, Operator Algebras and Related Topics, with Applications** — Będlewo, Poland
  Research and Conference Centre of the Institute of Mathematics of the Polish Academy of Sciences, Będlewo — July 6 - 12, 2025
- **Young Mathematicians in Operator Algebras** — Delhi, India
  Indian Statistical Institute, Delhi Centre — Mar 24 – 28, 2025
- **Conference on Operator Algebra and Related Topics (COART)** — Mumbai, India
  Indian Institute of Technology, Bombay — Feb 24 – 29, 2025
- **Noncommutative Mathematics and Applications (NCMA)** — Bengaluru, India
  Indian Statistical Institute, Bangalore Centre — Oct 24 – 26, 2024
- **Young Mathematicians in Operator Algebras** — Delhi, India
  Indian Statistical Institute, Delhi Centre — Feb 26 – Mar 02, 2024
- **International Conference on Spectral and Approximation Theory (ICSAT)** — Kochi, India
  Cochin University of Science and Technology, Kerala — Nov 27 – 30, 2023
- **Conference on Functional Analysis and Related Topics (CFART)** — Mumbai, India
  Indian Institute of Technology, Bombay — Feb 21 – 25, 2023
- **IWM (Indian Women and Mathematics) Annual Conference** — Pune, India
  Indian Institute of Science Education and Research, Pune — Dec 27 - 29, 2022
- **Indo-French Centre for Applied Mathematics (IFCAM)**
  Summer School on Mathematical Aspects of Quantum Mechanics — Bengaluru, India
  Indian Institute of Science, Bengaluru — Jun 01 – 12, 2022

Talks

- **Contributed Talks :**
  - *A stronger form of Yamamoto's theorem on singular values*
    IWOTA 2025, University of Twente, Enschede — July 18, 2025
  - *Jordan-Chevalley-Dunford decomposition in Type I_n Murray-von Neumann algebras*
    20th Workshop: Noncommutative Probability, Operator Algebras and Related Topics, with Applications, Będlewo — July 10, 2025
  - *Convergence of the normalized power sequence for spectral operators*
    COART, Indian Institute of Technology, Bombay — Feb 27, 2025
  - *On Matrices over $C(X)$ for X a Stonean space*
    ICSAT, Cochin University of Science and Technology, Kerala — Nov 27, 2023
- **Seminar Talks :**
  - *An elementary computational approach to the Jordan-Chevalley decomposition and the Jordan canonical form.*
    PDF - RS Annual Symposium, Indian Statistical Institute, Bangalore Centre — Jan 31, 2025
  - *Convergence of the normalized power sequence for spectral operators*
    QP - Day at ISI, Indian Statistical Institute, Bangalore Centre — Jan 15, 2025