

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

Philosophiae Doctorate in Mathematics
Supervisor : Dr. Soumyashant Nayak

Bengaluru, India
Jul 2019-present

University of Rajasthan

Master of Mathematics

Jaipur, India
Aug 2016 - Aug 2018

Sophia Girls' College

Bachelor of Mathematics

Ajmer, India
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>).
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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 / Grader

- Function spaces, B.math(III) - Semester I Aug 2023 - Nov 2023
Instructor : Soumyashant Nayak

- Complex Analysis, M.Math(I) - Semester II
Instructor : Ramesh Sreekantan Jan 2022 - May 2022
- Complex Analysis, B.Math(III) - Semester I
Instructor : Mathew Joseph Sep 2021 - Dec 2021

Conferences / Workshops Attended

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