




Curriculum Vitae

SANTU BERA

Ph.D. Student
Department of Mathematics and Statistics
Indian Institute of Technology Kanpur



Personal Details




Gender : Male
Date of Birth : 2nd March, 1998
Nationality : Indian
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Research Interests

Functional Analysis and Operator Theory.

More precisely, I work on reproducing kernel Hilbert spaces, Dirichlet-type spaces, m -isometric operators, completely hyperexpansive operators, Gleason problem, and proper holomorphic maps.

Education

- 2020 –  **Ph.D. (ongoing) in Mathematics, Indian Institute of Technology Kanpur**, Kanpur, India.
Thesis title: *Dirichlet-type spaces of the unit bidisc and total 2-isometries*
Supervisor: Prof. Sameer Chavan
- 2018 – 2020  **M.Sc. in Mathematics, Indian Institute of Technology Kanpur**, Kanpur, India.
Project title: *Convergence and Divergence of Fourier Series*
Supervisor: Prof. Parasar Mohanty
- 2015 – 2018  **B.Sc. in Mathematics, Ramakrishna Mission Residential College**, West Bengal, India.

MSc Project

Convergence and Divergence of Furier Series

Supervisor: Prof. Parasar Mohanty, IIT Kanpur

Publications

- **Santu Bera**, Sameer Chavan, Soumitra Ghara, A spectral dichotomy for commuting m -isometries with negative core operator, *Linear Algebra Appl.* **688** (2024), 244–255.
- **Santu Bera**, Sameer Chavan, Soumitra Ghara, Dirichlet-type spaces of the bidisc and toral 2-isometry, *Canad. J. Math.*, **77** (2025), no. 4, 1271–1293.

- **Santu Bera**, Sameer Chavan, Shubham Jain, A transference principle for involution-invariant functional Hilbert spaces, Accepted for publication in Journal of Geometric Analysis, arxiv.org/abs/2408.04384

Preprints

- **Santu Bera**, Dirichlet-type spaces of the unit bidisc and toral completely hyperexpansive operators, submitted to a journal, arxiv.org/abs/2506.20143

Teaching

May' 22 – Jan' 23	■ Complex Analysis at VSSD College , Kanpur, India.
Mar' 23 – Apr' 24	■ Abstract Algebra at VSSD College , Kanpur, India.
May' 24 – Oct' 24	■ Several Variable Calculus at VSSD College , Kanpur, India.
Oct' 24 – Mar' 25	■ Functional Analysis at VSSD College , Kanpur, India.
May' 25 – till date	■ Linear Algebra at VSSD College , Kanpur, India.

All these teaching duties are part of the Prime Minister Research Fellowship and are carried out online.

Awards and Honors

Aug' 25 –	■ Fellowship for Academic and Research Excellence (FARE) , IIT Kanpur.
Aug' 21 – Jul' 25	■ Prime Minister's Research Fellowship , IIT Kanpur.
Sep' 20 – Jul' 21	■ Institute Assistantship , IIT Kanpur.
Oct' 20	■ NBHM Ph.D. Fellowship (not taken).
Jul' 20	■ Prof. R. K. Jain Award , IIT Kanpur.
Mar' 20	■ AIR 13 in GATE .
Jun' 19	■ AIR 68 (JRF) in CSIR-UGC NET .
Mar' 18	■ AIR 77 in IIT-JAM in Mathematics .
Jul' 15 – May 20	■ INSPIRE-SHE Scholarship , RKMRC and IIT Kanpur

Conferences and Workshops

Sep 06-10, 2022	International Workshop on Operator Theory and its Applications , Jagiellonian University in Krakow, Poland.
Nov 24-26, 2022	Operator Theory and Complex Geometry , IISER Kolkata, India.
Mar 06-11, 2023	Operator theory and Operator Algebra , IIT Gandhinagar, India.

Conferences and Workshops (continued)

Jun 12-Jul 01, 2023	Advanced instructional school on Function Spaces , BITS Goa, India.
Jul 31-Aug 04, 2023	International Workshop on Operator Theory and its Applications , University of Helsinki, Finland.
Dec 22-24, 2023	38th Annual Conference of Ramanujan Mathematical Society , IIT Guwahati, India.
Mar 03, 2024	Annual Departmental Open House 2024 , IIT Kanpur, India.
Jul 26-27, 2024	Operator Analysis: A renaissance (2024) , Gandhinagar,, India.
Oct 24-26, 2024	Noncommutative Mathematics and Applications (NCMA) , ISI Bangalore, India.
Feb 09, 2025	Annual Departmental Open House 2025 , IIT Kanpur, India.
Jun 30-Jul 4, 2025	Hilbert Function Spaces 2025 , Frascati, Italy.