# Dr. Partha Sarathi Patra

CONTACT Information Assistant Professor

Department of Mathematics, Hijli College

PO Hijli Cooperative, Kharagpur West Bengal, India-721306

RESEARCH INTERESTS Harmonic Analysis

EMPLOYMENT

Hijli College

Assistant Professor, August 2020- Till date.

SRM University AP

Assistant Professor, August 2019- July 2020.

Indian Institute of Science Education and Research Bhopal

Post-doctoral Fellow, August 2018- August 2019.

**EDUCATION** 

Indian Institute of Technology Hyderabad, Telangana, India

Ph.D., Mathematics, 2013-2018 Degree Awarded on: August 5 2018.

- Thesis Title: The Hermite Semigroup and Hardy's Theorem
- Advisor: Dr. D Venku Naidu

### Publications

 Partha Sarathi, Patra; Venku Naidu, D Images of some subspaces of L2(Rm)under Grushin and Hermite semigroup. J. Pseudo-Differ. Oper. Appl. (2018) Volume 9, Issue 2, pp 247-264 https://doi.org/10.1007/s11868-017-0192-1

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- 2. Partha Sarathi, Patra; Sivaramakrishnan, C.; Venku Naidu, D. Benedicks' theorem for the Weyl transform associated with the Heisenberg group. Integral Transforms Spec. Funct. 29 (2018), no. 6, 442-449. https://doi.org/10.1080/10652469.2018.1452921
- Partha Sarathi, Patra; Dogga, Venku Naidu. Hardy's theorem and rotation for Dunkl transform. Complex Var. Elliptic Equ. 66 (2021), no. 1, 71–83. https://doi.org/10.1080/17476933.2019.1704278.
- 4. Patra, P.S., "A revisit to Hardy's theorem and rotations" Communicated, Under review.

# TEACHING EXPERIENCE

Taught Linear Algebra and Complex Analysis for B.Tech students. Worked as Teaching Assistant for the following M.Sc courses at IIT Hyderabad :

Linear Algebra (Instructor: Dr. Sukumar Daniel)

Complex analysis (Instructor: Dr, Venku Naidu)

For one semester

Functional Analysis (Instructor: Dr. Venku Naidu)

For one semester

Measure Theory (Instructor: Dr. Tanmoy Paul)

For one semester

- TALKS DELIVERED 1 Title: On the Images of some subspaces of  $L^2(\mathbb{R}^m)$  under Grushin semigroup. 6th Workshop on Fourier Analysis and Related Fields, The Alfréd Rényi Institute of Mathematics of the Hungarian Academy of Sciences and the Institute of Mathematics and Informatics Pécs, Hungary, 24-31 August 2017.
  - 2 Title:The Hardys' Theorem and Rotation, Inhouse Symposium, 8-9 February 2019, IISER Bhopal, India.

## Conferences AND WORKSHOPS

• 16th Discussion Meeting in Harmonic Analysis **IISER** Bhopal

Dec 16-19, 2019

• 15th Discussion Meeting on Harmonic Analysis', Indian Institute Science Bangalore

Dec 18-21, 2017.

- 20th Ramanujan Symposium International Conference on Fourier Analysis and Wavelets, Ramanujan Institute for Advanced Study in Mathematics March 21-25, 2017.
- Advanced Instructional school on "Harmonic Analysis", KSOM, Kerala

Dec 05-24,2016.

• Workshop on "Complex Geometry and Operator Theory" ISI Bangalore

Dec 01-03, 2015

• International Workshop on Operator Spaces university of Delhi, Delhi

Dec 7-9, 2015.

• Workshop in PDE and Fourier Analysis, Indian Institute of Technology Kanpur

Dec 08-20, 2014.

• Workshop on Operator & Spectral Theory, Operator Algebraa, Non Commutative Geometry. KSOM, Kerala Feb 07-14, 2014.

• Workshop on 'Functional Analysis and Operator algebras', National Institute of Technology Karnataka

June 2014.

• Advance Instructional School on Lie groups, IIT Bombay, Mumbai

July 7-26, 2014.

### Some Relevant Information

- Selected to receive NBHM postdoctoral fellowship 2018.
- Worked as PhD student representative in IIT Hyderabad 2017.
- Qualified NET and GATE exams.
- Worked in the organizing team in Mathematics summer camp for underprivileged high school students 2016-18.