# CURRICULUM VITAE

### Arnab Mandal

Assistant Professor, Department of Mathematics, Presidency University, 86/1 College Street, Kolkata-700073, India E-mail arnab.maths@presiuniv.ac.in, arnabmaths@gmail.com. Phone (+91) 9836648320, (+91) 7003245166.

#### <u>Research Interests</u>

Operator algebras, Quantum groups and Noncommutative Geometry.

#### <u>Education</u>

- Madhyamik (class 10) in 2003 with 80.25% marks.
- Higher secondary (10+2 level) in 2005 with 83.1% marks.
- Bachelor of mathematics from Ramakrishna Mission Vidyamandira, Belur Math, India with 68.75% marks in 2008.
- Masters of mathematics from Ramakrishna Mission Vidyamandira, Belur Math, India with 73.1% marks in 2010.
- Ph.D. from Indian Statistical Institute, Kolkata in 2017 under supervision of professor Debashish Goswami.

#### Achievements and fellowships

- Secured rank 13 in B.Sc. Mathematics (honours), University of Calcutta in 2008.
- Secured rank 2 in M.Sc. Mathematics, RKMV, University of Calcutta in 2010.
- Ph.D. fellowship from Indian Statistical Institute Kolkata in 2010.
- Ph.D fellowship from National Board of Higher Mathematics (NBHM) in 2010 (not availed).
- UGC-CSIR (NET) fellowship in Mathematical Sciences with Rank-39 in 2009, December (not availed).

- Qualified GATE in Mathematics with Rank-24 in 2010 (not availed).
- Postdoctoral fellowship from NISER, Bhubaneswar in 2017 (01.02.17-31.08.17).
- NPDF from SERB in 2017 (01.09.17-23.08.18).

#### **Publications**

- Arnab Mandal, Quantum isometry group of dual of finitely generated discrete groups-II, Annales Mathematiques Blaise Pascal, 23 (2016), no.2, p-219-247.
- Pavel Etingof, Debashish Goswami, Arnab Mandal, Chelsea Walton, Hopf coactions on commutative algebras generated by a quadratically independent comodule, Comm.Algebra, 45 (2017), no.8, 3410-3412.
- Debashish Goswami, Arnab Mandal, Quantum isometry group of dual of finitely generated discrete groups and quantum groups, Rev.Math.Phys, 29 (2017), no.3, 1750008, 38pp.
- Soumalya Joardar, Arnab Mandal, Quantum symmetry of Graph C\*- algebras associated with connected graphs, Infinite Dimensional Analysis, Quantum Probability and Related Topics, 21 (2018), no.3, 1850019,18pp.
- 5. Arnab Mandal, Example of a group whose quantum isometry group does not depend on the generating set, Glasgow Mathematical Journal, 61 (2019), no.1, 1-11.
- Jyotishman Bhowmick, Arnab Mandal, Sutanu Roy, Adam Skalski, Quantum symmetries of the twisted tensor products of C<sup>\*</sup>-algebras, Comm.Math.Phys, 368 (2019), no.3, 1051-1085.
- Debashish Goswami, Arnab Mandal, Quantum Isometry Group of Deformation: A counterexample, Annales Mathematiques Blaise pascal 26 (2019), no 1, 55-65.
- 8. Soumalya Joardar, Arnab Mandal, An example of explicit dependence of quantum symmetry on KMS states, J. Ramanujan Math. Soc. 35 (2020), no.4, 299-306.
- Soumalya Joardar, Arnab Mandal, Quantum symmetry of Graph C<sup>\*</sup>- algebra at critical inverse temperature, Studia Math 256 (2021), no. 1, 1-20.
- 10. Angsuman Das, Arnab Mandal, Classification of Cayley Rose Window Graphs, Theory and Applications of Graphs, vol 8 (2021).

11. Soumalya Joardar, Arnab Mandal, Invariance of KMS states on Graph C\*-algebras under classical and quantum symmetry, submitted.

### Ongoing Project

Quantum Symmetry of Higher rank graphs and graph C\*-algebras (Start-up grant under SERB) from December, 2019.

# Workshop and Conferences attended

- Conference on operator algebras at ISI Kolkata in July-August, 2011.
- Lecture series on (easy) quantum groups by Moritz Weber at IMSC, Chennai (4.01.15-23.01.15).
- Workshop on noncommutative geometry- I at ISI Kolkata (10.08.15-21.08.15).
- Workshop on operator theory and complex geometry at ISI Kolkata (07.09.15-11.09.15).
- Workshop on noncommutative geometry- II at ISI Kolkata (26.10.15-30.10.15).
- Workshop on quantum groups at Institute of Mathematics Polish Academy of Sciences, Poland (14.11.16-18.11.16).

### <u>Seminars</u>

- Quantum isometry group of certain class of group algebras (24.07.13) at ISI, Kolkata.
- Quantum symmetry group of compact matrix quantum groups (04.08.14) at ISI, Kolkata.
- Linear coaction on finitely generated algebra preserving some non-degenerate bilinear form (12.10.15) at ISI, Kolkata.
- Spectral theorem for unbounded normal operators (04.03.16) at ISI, Kolkata.
- Quantum symmetries of dual of finitely generated discrete groups (21.10.16) at NISER, Bhubaneswar.
- Quantum symmetry on graph C\*-algebra (07.01.19) at Presidency University, Kolkata.

# Teaching Experience

- TA of M101 course at NISER (01.08.17-30.11.17).
- TA of M102 course at NISER (02.01.18- 30.04.18).
- I have taken the courses Functional Analysis, Linear Algebra, Group Theory, Metric space, Operator Algebra and Stochastic Process at Presidency University till date.