

Curriculum Vitae
Arunkumar C S

Personal address

Chakkalakudiyil House
Neriamanagalam P O
Avolichal,Ernakulam
Pin : 686693
Phone: 9656129165
email:arunkumarcsmaths9@gmail.com

Personal information

Date of Birth : 23 May, 1993
Place of Birth : Angamaly, Ernakulam(Dist)
Sex : Male
Nationality : Indian

Education

MPhil in Mathematics(September 2016), Cochin University of Science and Technology, Kerala with CGPA 9.0 out of 10, (2015-2016).

M.Sc. in Mathematics (May 2015), **First rank**, , Cochin University of Science and Technology, Kerala with CGPA 8.92 out of 10 (2013- 2015).

B.Sc. in Mathematics (April 2013), , Mahathma Gandhi University, Kottayam with CGPA 3.43 out of 4,(2010-2013)

National Level Exams / Fellowships qualified

1. **NBHM** Phd Fellowship for mathematics (2017,2019).
2. **KSCSTE** resaerch fellowship for mathematics 2017.
3. **GATE** mathematics 2016.
4. **Lectureship (NET exam)** in mathematics (Jun-2015, Dec-2015).
5. **UGC-CSIR JRF** in mathematics (Jun-2015, Dec-2015).

Academic achievements

1. **Worked as a research scholar in the department of mathematics IIT Madras** from july 15, 2016 to june 16, 2017 and completed the two semester Phd course work successfully.
2. **First rank** for MSc mathematics, CUSAT (2013-2015 batch).
3. **First rank** for MPhil mathematics, CUSAT (2015-2016 batch)

Area of Research

My research interests broadly lie in Functional Analysis. Currently, I am studying non-commutative functional analysis in general, and quantum aspects such as approximation and convexity in the context of operator spaces, and operator systems in C^* -algebras.

Research Publications

1. **Arunkumar C.S.**, "Local boundary representations of locally C^* -algebras" in Journal of Mathematical Analysis and Applications (2022)
2. **Arunkumar C.S.**, Shankar P. and Vijayarajan A.K., "Boundary Representations and Rectangular Hyperrigidity" in Banach Journal of Mathematical Analysis (2021).
3. **Arunkumar C.S.**, Shabna A.M., Vijayarajan A.K. and Syamkrishnan M.S., "Extreme States and boundary representations of operator spaces in Ternary ring of operators" in Joournal of Algebra and its applications(2023)
4. **Arunkumar C.S.**, "Boundary representations and hyperrigidity for spaces of operators" in Journal of International Academy of Physical Sciences(2022).
5. **Arunkumar C.S.**, Vijayarajan A.K. "A note on the amplification of weak boundary representations and quasi hyperrigidity" in Journal of Analysis(2022)
6. **Arunkumar C.S.**, Shabna A.M., Vijayarajan A.K. and Syamkrishnan M.S., "Extreme States on operator spaces in Ternary ring of operators" in Proceedins of Indian Academy of Sciences-Mathematical Sciences(2021).

Conference Presentations(International)

1. Presented a paper entitled "Boundary representations and hyperrigidity for spaces of operators" in CONIAPS XXVII-MAAPS-2021 organized jointly by Department of Mathematics, Central University of Kerala and International Academy of Physical Sciences, Prayagraj, India.
2. Presented a paper entitled "Boundary representations and hyperrigidity of spaces of operators" in ICMS-2021 organized by SVNIT Surat, Gujarat.
3. Presented a paper entitled " A Note on Gruss type Inequality of unital 2-positive linear maps" in ICSETS-2019 organized by Kuriakose Elias College, Kottayam, Kerala.

Teaching Experience/ Teaching Assistantship

1. **Worked as an Assistant Professor (as FDP substitute)** in the department of mathematics SNM College Malianakra, Ernakulam, from august 4, 2017 to june 7, 2018. **(10 months)**
2. Teaching Assistant to Prof. Pranav Haridas, KSoM, for the NPTEL Online Course MA21-Linear algebra(January 2020 to April 2020) conducted by IIT Madras.
(email : pranav@ksom.res.in)

3. Teaching Assistant to Prof. Pranav Haridas, KSoM, for the NPTEL Online Course MA50- Complex analysis(September 2020 to December 2020) conducted by IIT Madras. (E-mail : pranav@ksom.res.in)
4. Teaching Assistant to Prof. Pranav Haridas, KSoM, for his Topology course(December 2020 to April 2021) for the Integrated-PhD program at Kerala School of Mathematics. (E-mail : pranav@ksom.res.in)
5. Teaching Assistant to Prof. Pranav Haridas, KSoM, for the NPTEL Online Course MA05-Linear algebra(January 2021 to April 2021) conducted by IIT Madras. (E-mail : pranav@ksom.res.in)
6. Teaching Assistant to Prof. Krishnakumar V., KSoM, for his Differential Equations (April 2021 to July 2021) for the Integrated-PhD program at Kerala School of Mathematics. (E-mail : krishna@ksom.res.in)

Lectures/Talks given

1. Invited lecture on "Complex Analysis" at the National Workshop on Complex Analysis (NWCA-2018) organized by Dept. of mathematics, Sacred Heart College Chalakudy, Thrissur on 12/02/2018.
2. Invited lecture on the topic "Introduction to permutation groups" for BSc final year students at St. Xavier's college for women, Aluva, Ernakulam, on 08/06/2018.
3. Invited talk on "Introduction to measure theory" at W.M.O college, Muttill, Wayanad, 22/06/2021.
4. I have given lectures related to CSIR-UGC NET-JRF, NBHM, TIFR, GATE, and JAM exams at several colleges in Kerala. To name few- St. Josephs College Devagiri, Calicut; St. Berchmans College Changanassery, Kottayam; Maharajas College Ernakulam; St Teresa's College, Ernakulam; Al-Ameen College, Ernakulam; WMO college, Muttill Wayanad;