



**Arathy Venugopal**  
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## EDUCATION

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- **PhD** Aug 2022 onwards  
*Indian Institute of Science Education and Research, Tirupati* CGPA (Phd coursework): 9.7/10
- **BSMS Dual degree** 2016-2021  
*Indian Institute of Science Education and Research, Tirupati* CGPA: 8.8/10
- **12th Grade (AISSCE)** 2016  
*St. Antony's Public School, Anakkal (Board: CBSE)* Percentage: 94.4%
- **10th Grade (AISSE)** 2014  
*St. Antony's Public School, Anakkal (Board: CBSE)* CGPA: 10/10

## ACHEIVEMENTS / FELLOWSHIPS

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- Qualified CSIR-NET lectureship (October 2022)
- Received Provisional offer for INSPIRE fellowship 2021
- Recipient of INSPIRE-SHE (2016-2021)

## CONFERENCES / WORKSHOPS

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- New directions in Rational points , Chennai Mathematical Institute (January 2024)
- Conference on Rational Points on Modular curves (September 2023)
- Workshop on Elliptic Curves conducted by National Centre for Mathematics at IISER Trivandrum (April 2023).
- Intercity Number theory Conference hosted by Chennai Mathematical Institute (Feb 2023).
- Workshop on Group theory and Related Areas organized by IIIT Allahabad (Online) (Nov 2022).
- Vijyoshi National Science Camp 2016 held at IISc Bangalore (Dec 2016)

## PROJECTS

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- **MS Thesis (2020-2021)- Complex representations of  $GL_n(F_q)$  under the guidance of Dr. Venkatasubramanian C.G, IISER Tirupati:** In this project, we classified all the irreducible representations of  $GL_2(F_q)$  using Piatetski-Shapiro's approach. Several concepts like induction and Jacquet module, used in the thesis, could be generalized appropriately to construct the irreducible representations of  $GL_2(F)$ , where  $F$  is a  $p$ -adic field.
- **(Jan - April 2019)-Representation theory of finite groups under the guidance of Dr. Shalini Bhattacharya, IISER Tirupati:** Aim of this project was to understand topics in Representation theory like Character theory, Frobenius Reciprocity, Mackey's irreducibility criterion etc. and to compute Character table of various groups like Dihedral Groups, Symmetric Groups etc.
- **(Aug- Nov 2019)-Topological Groups and Haar Measure under the guidance of Dr. Venkatasubramanian C.G, IISER Tirupati.**
- **(May-June 2018)-Counting using Chebyshev polynomials under the guidance of Dr. B. Sury, Indian Statistical Institute, Bangalore.**

## RESEARCH INTERESTS

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I am interested in Algebraic Number theory and Representation theory. I plan to work on Galois representations and associated mod- $p$  reduction problems.

## TEACHING ASSISTANCE

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- (May 2023)-Worked as tutor for Annual Foundation School-II 2023 organised by NCM at Mepco Schlenk Engineering College, Sivakasi.
- (Jan - July 2022)-Worked as Teaching Assistant in IISER Tirupati. Courses - Probability and Statistics, Linear Algebra, Basic Structures in Mathematics, Single variable Calculus.