

AARATRICK BASU

CURRICULUM VITAE¹

PERSONAL DATA

DATE OF BIRTH 5th August, 2003
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EDUCATION

PERIOD	Fall 2024 — Present	
DEGREE	PhD in Mathematics	
UNIVERSITY	University of Virginia	Charlottesville, VA, USA
PERIOD	2021 — 2024	
DEGREE	Bachelor of Mathematics (Honours)	
PERCENTAGE	92.63%	
UNIVERSITY	Indian Statistical Institute	Bangalore, India
PERIOD	2018 — 2021	
DEGREE	Secondary & Higher Secondary school	
SCHOOL	Aditya Academy Secondary, Kadambagachi	West Bengal, India

PROJECTS

PERIOD	January - April 2024	
ORGANISERS	Prof. Charanya Ravi, Prof. Jishnu Biswas, Prof. Manish Kumar	
PROGRAM	Reading Seminar	ISI Bangalore
TOPIC	Intersection homology	
PERIOD	May - July 2023	
GUIDE	Prof. Subhojoy Gupta	IISc Bangalore
PROGRAM	Summer Research Fellowship Program	
TOPIC	Geometry and Topology of Surfaces	
PERIOD	June - July 2023	
ORGANISER	Prof. Apoorva Khare, Prof. R Venkatesh	IISc Bangalore
PROGRAM	Advanced Instruction School	
TOPIC	Lie Groups and Lie Algebras	
PERIOD	December 2022	
GUIDE	Prof. Maneesh Thakur	ISI Bangalore
TOPIC	Geometric Algebra	

¹Last updated: 11th July, 2024

SCHOLARSHIPS AND AWARDS

2022	Summer Research Fellowship (Indian Academy of Sciences)
2019	KVPY SA Fellow
2019	JBNSTS Junior Scholar

SKILLS

Languages	English (near native), Hindi (fluent), Bengali (native)
Programming Languages	Python, LaTeX, R, Markdown, JavaScript, Bash

TALKS GIVEN

- A proof of the Dehn-Nielsen-Baer theorem using geometric group theory
Presentation at end of project with Prof. Subhojoy Gupta, IISc Bangalore, July 2023
- Hyperbolic Geometry, Hyperbolic Surfaces and Fuchsian Groups
Math Club student talk, ISI Bangalore, August 2023
- L^2 -cohomology and intersection cohomology
Intersection Homology reading seminar, ISI Bangalore, February 2024
- What is $\pi_1(x)$?
Math Club “What is ...?” seminar, ISI Bangalore, March 2024
- The Riemann-Hurwitz formula, orbifolds and Hurwitz’s automorphism theorem
Part of Complex Analysis course, ISI Bangalore, March 2024

VOLUNTEER WORK

- Involved in organising talks and maintaining the [website](#) of student run *Math Club* at ISI Bangalore.
- Contributed to the [website](#) of math contest *LIMIT* run by students of ISI Bangalore.
- LaTeXed notes of course on Real Analysis of Several Variables, available [here](#).
- Planned and organised “What is ...?” [seminar](#) with other Math Club members at ISI Bangalore.