

Rohan Goyal

CONTACT INFORMATION	Theory of Computation Group, Massachusetts Institute of Technology	rohan.g@mit.edu https://goyal-rohan.github.io/
RESEARCH INTERESTS	I am interested in theoretical computer science broadly. My main interests lie in cryptography and error-correcting codes.	
EDUCATION	Massachusetts Institute of Technology , Massachusetts PhD. in Computer Science Advisors: Vinod Vaikuntanathan and Yael Kalai	September 2024 - Current
	Chennai Mathematical Institute , Chennai, India B.Sc.(Honours) in Mathematics and Computer Science CGPA: 9.62/10.00	September 2021-April 2024
SELECTED HONORS AND AWARDS	Observer A for India at International Mathematical Olympiad India's best result!	2024
	Deputy Leader India, European Girls Mathematics Olympiad 2023 Indian team	2022
	Bronze Medal at International Mathematical Olympiad (IND1)	2021
	Indian National Mathematical Olympiad: Qualified for National Camp India Rank 2 in 2021	2020, 2021
INTERNSHIPS, RESEARCH PROJECTS	Tata Institute of Fundamental Research , Navy Nagar, Mumbai, India <i>Intern</i> Worked under Professor Prahladh Harsha . The paper <i>Fast list-decoding of univariate multiplicity and folded Reed-Solomon codes</i> was a result of this project.	May 2023 - August 2023
	École Normale Supérieure , Rue d'Ulm, Paris <i>Intern</i> Worked under Professor David Saulpic and Frédéric Magniez on quantum and classical clustering algorithms. This internship was part of the CMI-ENS exchange program.	May 2024 - June 2024
WRITING AND PUBLICATIONS	Publications <ul style="list-style-type: none"><i>Fast list-decoding of univariate multiplicity and folded Reed-Solomon codes</i> with Prahladh Harsha, Mrinal Kumar and Ashutosh Shankar.	[ECCC]
TALKS AND PRESENTATIONS	Sunflower Conjecture CMI Student Seminar	Sep, 2023
	Combinatorial Nullstellensatz TIFR STCS Student Seminar	Aug, 2023
	Fast list-decoding of univariate multiplicity and folded Reed-Solomon codes FOCS 2024	October, 2024
OLYMPIAD PROJECTS AND OUTREACH	Indian Mathematical Olympiad Program I am involved in various roles in the Indian Mathematical Olympiad Program. Some of these are: <ul style="list-style-type: none">Observer A at IMO 2024, Deputy leader for India at EGMO 2023Paper setting, grading, problem proposing: IMO TSTs: 2023, 2024 EGMO TSTs 2021, 2022, 2023 INMO 2023, 2024	2021-present

- Teaching, training: EGMOTC 2022, 2023|IMOTC 2023|INMOTCs 2022, 2023|EGMO PDC 2022, 2023|IMO PDC 2022, 2023, 2024

Sophie Fellowship [[Web](#)]

2021-2022

Co-founded Sophie Fellowship to provide more resources and guidance to talented students interested in participating in international and national mathematical Olympiads. The team consists of various IMO and EGMO medalists. I am now not actively teaching, and am only in an advisory role due to my increased involvement with the official Indian program. I have also taught many of the sessions.

Miscellaneous Talks and Activities

I often take some talks on Olympiads or elementary topics. I have been involved in running the online math club, conducting the Championship of Mathematical and Logical games in India, the STEMS exam of CMI, taken talks in unofficial IMOTC, conducted camps etc.

TEACHING
EXPERIENCE

TAship at CMI:

Complexity Theory 1, Discrete Mathematics (twice), Theory of Computation, Expander Graphs and Applications