

# Rohit Chatterjee

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**POSITIONS** Postdoctoral Research Fellow  
**National University of Singapore** Supervisor: Prashant Nalini Vasudevan  
*November 2023 - Ongoing*

**EDUCATION** *PhD* Advisor: Omkant Pandey  
Computer Science & Engineering  
Department  
**Stony Brook University** *August 2017 - September 2023*  
*Thesis:* Efficient Approaches to Emerging Cryptography against Quantum Threats

*Master of Science (Research)* Advisors: Bhavana Kanukurthi &  
*Bachelor of Science (Research), First Class* Himanshu Tyagi  
Major: Mathematics  
Undergraduate Department  
**Indian Institute of Science** *August 2012 - May 2017*  
*Undergraduate Thesis:* Information Theoretic Secure Computation

**MANUSCRIPTS** **Public Key Encryption from the MinRank Problem**  
*In Submission*  
With Changrui Mu & Prashant Nalini Vasudevan

**PUBLICATIONS** **Decoding Balanced Linear Codes With Preprocessing**  
*ITCS 2026*  
With Andrej Bogdanov, Yunqi Li & Prashant Nalini Vasudevan

**The Round Complexity of Black-Box Post-Quantum Secure Computation**  
*CRYPTO 2025*  
With Xiao Liang, Omkant Pandey & Takashi Yamakawa

**On the Necessity of Uncloneable Proof and Advice States**  
*STOC 2025*  
With Supartha Podder & Srijita Kundu

**Building Unclonable Cryptography: A Tale of Two No-cloning Paradigms**  
*SECRYPT 2023*  
With Ghada Almashaqbeh

**A Note on the Post-Quantum Security of (Ring) Signatures**  
*PKC 2022*  
With Kai-Min Chung, Xiao Liang, & Giulio Malavolta

**Compact Ring Signatures from Learning With Errors**

*CRYPTO 2021*

With Sanjam Garg, Mohammad Hajiabadi, Dakshita Khurana, Xiao Liang, Giulio Malavolta, Omkant Pandey & Sina Shiehian

**Improved Black-Box Constructions of Composable Secure Computation**

*ICALP 2020*

With Xiao Liang & Omkant Pandey

**TALKS**

**On the Necessity of Uncloneable Proof and Advice States**

Invited Talk at SoC AlgoTheory Seminar at **NUS**, October 2025.

Invited Talk at CS Departmental Seminar at **CUHK**, August 2025.

Invited Long Talk at **AQIS 2025**, August 2025

**Post-Quantum Black-Box Secure Computation from Minimal Assumptions**

Invited Talk at SoC AlgoTheory Seminar at **NUS**, February 2024

**SERVICE**

Invited Reviewer for **Journal of Cryptology** [2023], **EUROCRYPT** [2023-2026], **CRYPTO** [2023-2025], **ASIACRYPT** [2022,2024,2025], **TCC** [2021-2025], **PKC** [2019,2024,2025], **TQC** [2024,2025], **ITC** [2023], **SCN** [2022], **QCRYPT** [2023], **WWW S&P** [2026]

Organizer of the **AlgoTheory Seminar** at School of Computing at NUS, since January 2024

**EXPERIENCE**

**Mentorship:**

Co-supervised 3 undergraduates as part of the **Odyssey Summer Research** program at NUS School of Computing for advanced undergraduates

Co-supervising an undergraduate **Final Year Project** at NUS School of Computing (as part of the FYP program)

**Teaching & Assistantship:**

Modern Cryptography, Analysis of Algorithms, Foundations of Computer Science(UG)

**Programming Languages known:**

Python, Java, C, R

**AWARDS**

Recipient of the prestigious **Kishore Vaigyanik Protsahan Yojana (KVPY) fellowship** in 2012, a National Fellowship in Basic Sciences, funded by the Department of Science and Technology (DST), Government of India for showing promise in research in basic science (All India Rank: 159)