

Subhasree Patro

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Education

Pursuing PhD in Computer Science at University of Amsterdam (2018 – present)
Supervisors: Prof. Harry Buhrman and Dr. Florian Speelman

MS by Research in Computer Science at International Institute of Information Technology, Hyderabad, India (2015 - 2018)
Supervisors: Dr. Indranil Chakrabarty and Dr. Kannan Srinathan

BTech in Computer Science at International Institute of Information Technology, Hyderabad, India (2006 - 2010)

Publications

[Fine-Grained Complexity via Quantum Walks](#)

With Harry Buhrman, Bruno Loff, and Florian Speelman
To appear in proceedings of ITCS 2022
Appeared in non-proceedings track of TQC 2021

[A Framework of Quantum Strong Exponential-Time Hypotheses](#)

With Harry Buhrman and Florian Speelman
Appeared in the proceedings of STACS 2021
Also appeared in the non-proceedings track of TQC 2020

[Impossibility of Cloning of Quantum Coherence](#)

With Dhruvil Patel, Chiranjeevi Vanarasa, Indranil Chakrabarty, and Arun Kumar Pati
Published in Physical Review A 103, 2021

[Non-Negativity of Conditional von Neumann Entropy and Global Unitary Operations](#)

With Indranil Chakrabarty, Nirman Ganguly
Published in Physical Review A 96, 2017

[An Overview of Quantum Algorithms: Quantum Supremacy to Shor Factorization](#)

With Alvaro Piedrafita
Published in ISCAS 2020

Talks

Quantum Fine-Grained Complexity
At TQC on June 29, 2021 ([youtube video](#))
Invited (virtual) talk at IRIF, Paris on June 24, 2021 ([youtube video](#))
Invited (virtual) talk at NUS, Singapore on August 30, 2021
Invited (virtual) talk at University of Bristol on November 10, 2021

A Framework of Quantum Strong Exponential-Time Hypotheses

At TQC on June 12, 2020 ([youtube video](#))

At STACS on March 9, 2021 ([youtube video](#))

Invited (virtual) talk at CQT, Singapore on February 2, 2021 ([youtube video](#))

Invited (virtual) talk at QuSoft, CWI on Dec 21, 2020 ([youtube video](#))

Invited talk at IIIT-Hyderabad, India on January 7, 2020

Quantum Fine-Grained Complexity (in layperson's terms)

At the Scientific Meeting of CWI ([link to the video](#))

Quantum Walks and its Applications

At IIIT Hyderabad, India on October 24, 2020 ([youtube video](#))

Non-Negativity of Conditional von Neumann Entropy and Global Unitary Operations

Invited talk at QuSoft, CWI on November 2, 2018

Teaching Experience

Teaching Assistant

Introduction to Quantum Computing at University of Amsterdam (2018, 2019)

Discrete Mathematics and Linear Algebra at IIIT Hyderabad, India (2016-2018)

Lecturer at the CS of Department of KIIT Bhubaneswar, India (2010-2011)

Taught C programming and data structures to first and second year Btech students

Work Experience

Build Engineer at Microsoft IDC (2012 - 2015)

System Center - Virtual Machine Manager Team: Responsibilities included Functional Testing and Unit Test Automation

WinSE Build and Packaging Team: Responsibilities included maintaining and optimizing the build and packaging automation for the updates to be shipped for Windows operating systems like Vista, Win7

Awards and Recognitions

Received Pat-On-The-Back award from Microsoft, IDC in the first year of joining

Secured an all India rank of 1301 in AIEEE'06 exam, an entrance test taken by about eight hundred thousand students all over the country

Qualified State Level Maths Olympiad in Grade 11, 2004, secured an all India rank of 42 in National Cyber Olympiad in Grade 10, 2003

Professional Service

Part of the [WIQD](#) organizing committee from January 2021 to October 2021

Subreviewer for FOCS, STOC, MFCS, QIP, ITCS

Co-organizer for QuSoft seminars from 2019 to 2021

References

Harry Buhrman
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University of Amsterdam
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Florian Speelman
QuSoft
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Bruno Loff
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