

Mathematics of Quantum Computing

(Tentative Title)

A report submitted in partial fulfillment
of the requirement for the degree of

**MASTER OF SCIENCE
IN
MATHEMATICS**

by

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22MMT002

Under the guidance of

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Abstract

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CERTIFICATE

This is to certify that the dissertation entitled **Mathematics of Quantum Computing (Tentative Title)** submitted by **Pranay Raja Krishnan** (22MMT002) towards the partial fulfillment of the requirement for the degree of Master of Science (M.Sc) is a bonafide record of work carried out by him at the Department of Mathematics, The LNM Institute of Information Technology, Jaipur, (Rajasthan) India, during the academic session 2018-2019 under my supervision and guidance.

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Acknowledgements

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Date: August 25, 2023

Pranay Raja Krishnan

List of Notations

Unless explicitly defined the following notations are used.

Symbol	Meaning
\subseteq	subset or equal to
$\not\subseteq$	not subset
\supseteq	superset or equal to
\emptyset	empty set
\in	belongs to
\notin	does not belong to
$\prod_{i \in I}$	product over index set I
\mathbb{C}	the set of complex numbers
\mathbb{R}	the set of real numbers
\mathbb{N}	the set of natural numbers

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Chapter 1

Qubits

((TEST TEST TEST))

1.1 Qubits

Definition 1.1.1 (Qubit). *A qubit*

Bibliography

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- [2] Nam dui ligula, fringilla a, euismod sodales, sollicitudin vel, wisi. Morbi auctor lorem non justo. Nam lacus libero, pretium at, lobortis vitae, ultricies et, tellus.
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