

**[Thesis Title]**

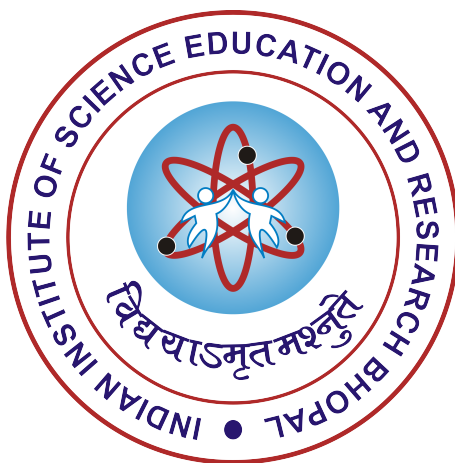
A thesis submitted in partial fulfilment of the requirements  
for the award of the degree of

**DOCTOR OF PHILOSOPHY**

by

**[STUDENT NAME]**

**[Roll no]**



to the

**DEPARTMENT OF PHYSICS**

**INDIAN INSTITUTE OF SCIENCE EDUCATION AND  
RESEARCH BHOPAL**

**BHOPAL - 462066**

**[Month, Year]**



**[Thesis Title]**

A thesis submitted in partial fulfilment of the requirements  
for the award of the degree of

**DOCTOR OF PHILOSOPHY**

by

**[STUDENT NAME]**

**[Roll no]**



to the

**DEPARTMENT OF PHYSICS**

**INDIAN INSTITUTE OF SCIENCE EDUCATION AND  
RESEARCH BHOPAL**

**BHOPAL - 462066**

**[Month, Year]**

# CERTIFICATE

The undersigned have examined the Ph.D. thesis entitled:

**[Thesis Title]**

presented by Ms.[Student name], a candidate for the degree of Doctor of Philosophy in the department of Physics, and hereby certify that it is worthy of acceptance.

[Month, Year]

IISER, Bhopal

[name of Ex. Examiner]

External Examiner

[Advisor name]

Supervisor

[name of the oral board examiner]

Member

[name of the oral board examiner]

Member

[name of the oral board examiner]]

Member

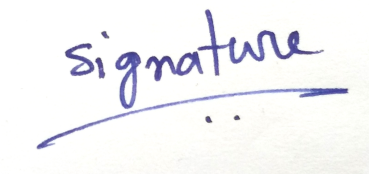
# ACADEMIC INTEGRITY AND COPYRIGHT DISCLAIMER

I hereby declare that this thesis is my own work and, to the best of my knowledge, it contains no materials previously published or written by any other person, or substantial proportions of material which have been accepted for the award of any other degree or diploma at IISER Bhopal or any other educational institution, except where due acknowledgement is made in the thesis.

I certify that all copyrighted material incorporated into this thesis is in compliance with the Indian Copyright (Amendment) Act, 2012 and that I have received written permission from the copyright owners for my use of their work, which is beyond the scope of the law. I agree to indemnify and save harmless IISER Bhopal from any and all claims that may be asserted or that may arise from any copyright violation.

[Month, Year]

IISER, Bhopal

A handwritten signature in blue ink, written on a light-colored background. The word "signature" is written in a cursive script, with a long horizontal line extending from the end of the word.

[Student name]

## ACKNOWLEDGEMENTS

Put the acknowledgement

# DEDICATION

Dedicated to the dedicated

# ABSTRACT

Abstract



# Table of Contents

Certificate	ii
Academic Integrity and Copyright Disclaimer	iii
Acknowledgement	iv
Dedication	v
Abstract	vi
Table of Contents	vii
List of Symbols and Abbreviations	ix
List of Figures	ix
List of Tables	xi
<b>1 Title(for example: Introduction)</b>	<b>1</b>
1.1   ··· . . . . .	1
1.2   ··· . . . . .	3
1.3   ··· . . . . .	3
1.4   ··· . . . . .	3
1.4.1   ··· . . . . .	3
1.4.2   ··· . . . . .	3
<b>2 Title(for example: Literature Review)</b>	<b>5</b>
2.1   ··· . . . . .	5
2.2   ··· . . . . .	6

2.2.1	...	6
2.2.2	...	6
<b>3</b>	<b>Title(for example: Summary and Conclusion)</b>	<b>7</b>
3.1	...	7
3.2	...	7
<b>References</b>		<b>7</b>
<b>Appendices</b>		<b>11</b>
<b>A</b>	<b>First Appendix</b>	<b>13</b>
<b>B</b>	<b>Second Appendix</b>	<b>15</b>

# List of Symbols & Abbreviations

$\alpha$	alpha particle
$\epsilon$	Energy parameter
$k_B$	Boltzmann constant
$T$	Temperature



# List of Figures

1.1	Sator arepo tenet opera rotas . . . . .	2
B.1	Sator arepo tenet opera rotas . . . . .	16



# List of Tables

2.1	Sator arepo tenet opera rotas . . . . .	6
A.1	Sator arepo tenet opera rotas . . . . .	14

# Chapter 1

## Title(for example: Introduction)

### 1.1 ...

Lorem ipsum dolor sit amet, consectetur adipiscing elit. Ut purus elit, vestibulum ut, placerat ac, adipiscing vitae, felis. Curabitur dictum gravida mauris. Nam arcu libero, nonummy eget, consectetur id, vulputate a, magna. Donec vehicula augue eu neque. Pellentesque habitant morbi tristique senectus et netus et malesuada fames ac turpis egestas. Mauris ut leo. Cras viverra metus rhoncus sem. Nulla et lectus vestibulum urna fringilla ultrices. Phasellus eu tellus sit amet tortor gravida placerat. Integer sapien est, iaculis in, pretium quis, viverra ac, nunc. Praesent eget sem vel leo ultrices bibendum. Aenean faucibus. Morbi dolor nulla, malesuada eu, pulvinar at, mollis ac, nulla. Curabitur auctor semper nulla. Donec varius orci eget risus. Duis nibh mi, congue eu, accumsan eleifend, sagittis quis, diam. Duis eget orci sit amet orci dignissim rutrum.

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. Donec aliquet, tortor sed accumsan bibendum, erat ligula aliquet magna, vitae ornare odio metus a mi. Morbi ac orci et nisl hendrerit mollis. Suspendisse ut massa. Cras nec ante. Pellentesque a nulla. Cum sociis natoque penatibus et magnis dis parturient montes, nascetur ridiculus mus. Aliquam tincidunt urna. Nulla ullamcorper vestibulum turpis. Pellentesque cursus luctus mauris.

Nulla malesuada porttitor diam. Donec felis erat, congue non, volutpat at, tincidunt tristique, libero. Vivamus viverra fermentum felis. Donec nonummy pellentesque ante. Phasellus adipiscing semper elit. Proin fermentum massa ac quam. Sed diam turpis,



S	A	T	O	R
A	R	E	P	O
T	E	N	E	T
O	P	E	R	A
R	O	T	A	S

**Figure 1.1:** Sator arepo tenet opera rotas

molestie vitae, placerat a, molestie nec, leo. Maecenas lacinia. Nam ipsum ligula, eleifend at, accumsan nec, suscipit a, ipsum. Morbi blandit ligula feugiat magna. Nunc eleifend consequat lorem. Sed lacinia nulla vitae enim. Pellentesque tincidunt purus vel magna. Integer non enim. Praesent euismod nunc eu purus. Donec bibendum quam in tellus. Nullam cursus pulvinar lectus. Donec et mi. Nam vulputate metus eu enim. Vestibulum pellentesque felis eu massa.

See figure 1.1.

Quisque ullamcorper placerat ipsum. Cras nibh. Morbi vel justo vitae lacus tincidunt ultrices. Lorem ipsum dolor sit amet, consectetur adipiscing elit. In hac habitasse platea dictumst. Integer tempus convallis augue. Etiam facilisis. Nunc elementum fermentum wisi. Aenean placerat. Ut imperdiet, enim sed gravida sollicitudin, felis odio placerat quam, ac pulvinar elit purus eget enim. Nunc vitae tortor. Proin tempus nibh sit amet nisl. Vivamus quis tortor vitae risus porta vehicula.

**1.2** ...

**1.3** ...

**1.4** ...

**1.4.1** ...

**1.4.2** ...



## Chapter 2

# Title(for example: Literature Review)

### 2.1 ...

Lorem ipsum dolor sit amet, consectetur adipiscing elit. Ut purus elit, vestibulum ut, placerat ac, adipiscing vitae, felis. Curabitur dictum gravida mauris. Nam arcu libero, nonummy eget, consectetur id, vulputate a, magna. Donec vehicula augue eu neque. Pellentesque habitant morbi tristique senectus et netus et malesuada fames ac turpis egestas. Mauris ut leo. Cras viverra metus rhoncus sem. Nulla et lectus vestibulum urna fringilla ultrices. Phasellus eu tellus sit amet tortor gravida placerat. Integer sapien est, iaculis in, pretium quis, viverra ac, nunc. Praesent eget sem vel leo ultrices bibendum. Aenean faucibus. Morbi dolor nulla, malesuada eu, pulvinar at, mollis ac, nulla. Curabitur auctor semper nulla. Donec varius orci eget risus. Duis nibh mi, congue eu, accumsan eleifend, sagittis quis, diam. Duis eget orci sit amet orci dignissim rutrum.

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. Donec aliquet, tortor sed accumsan bibendum, erat ligula aliquet magna, vitae ornare odio metus a mi. Morbi ac orci et nisl hendrerit mollis. Suspendisse ut massa. Cras nec ante. Pellentesque a nulla. Cum sociis natoque penatibus et magnis dis parturient montes, nascetur ridiculus mus. Aliquam tincidunt urna. Nulla ullamcorper vestibulum turpis. Pellentesque cursus luctus mauris.

Nulla malesuada porttitor diam. Donec felis erat, congue non, volutpat at, tincidunt

**Table 2.1:** Sator arepo tenet opera rotas

No.	Sator Arepo	Tenet Opera	Rotas
1	Sator arepo tenet opera rotas	Sator arepo tenet opera rotas	Sator arepo tenet opera rotas
2	Sator arepo tenet opera rotas	Sator arepo tenet opera rotas	Sator arepo tenet opera rotas
3	Sator arepo tenet opera rotas	Sator arepo tenet opera rotas	Sator arepo tenet opera rotas
4	Sator arepo tenet opera rotas	Sator arepo tenet opera rotas	Sator arepo tenet opera rotas

tristique, libero. Vivamus viverra fermentum felis. Donec nonummy pellentesque ante. Phasellus adipiscing semper elit. Proin fermentum massa ac quam. Sed diam turpis, molestie vitae, placerat a, molestie nec, leo. Maecenas lacinia. Nam ipsum ligula, eleifend at, accumsan nec, suscipit a, ipsum. Morbi blandit ligula feugiat magna. Nunc eleifend consequat lorem. Sed lacinia nulla vitae enim. Pellentesque tincidunt purus vel magna. Integer non enim. Praesent euismod nunc eu purus. Donec bibendum quam in tellus. Nullam cursus pulvinar lectus. Donec et mi. Nam vulputate metus eu enim. Vestibulum pellentesque felis eu massa.

See table 2.1.

Quisque ullamcorper placerat ipsum. Cras nibh. Morbi vel justo vitae lacus tincidunt ultrices. Lorem ipsum dolor sit amet, consectetur adipiscing elit. In hac habitasse platea dictumst. Integer tempus convallis augue. Etiam facilisis. Nunc elementum fermentum wisi. Aenean placerat. Ut imperdiet, enim sed gravida sollicitudin, felis odio placerat quam, ac pulvinar elit purus eget enim. Nunc vitae tortor. Proin tempus nibh sit amet nisl. Vivamus quis tortor vitae risus porta vehicula.

## 2.2 ...

### 2.2.1 ...

### 2.2.2 ...

## Chapter 3

# Title(for example: Summary and Conclusion)

3.1 ...

3.2 ...



# References





# Appendices



# Appendix A

## First Appendix

See table A.1.

**Table A.1:** Sator arepo tenet opera rotas

No.	Sator Arepo	Tenet Opera	Rotas
1	Sator arepo tenet opera rotas	Sator arepo tenet opera rotas	Sator arepo tenet opera rotas
2	Sator arepo tenet opera rotas	Sator arepo tenet opera rotas	Sator arepo tenet opera rotas
3	Sator arepo tenet opera rotas	Sator arepo tenet opera rotas	Sator arepo tenet opera rotas
4	Sator arepo tenet opera rotas	Sator arepo tenet opera rotas	Sator arepo tenet opera rotas

# Appendix B

## Second Appendix

See figure B.1.

S	A	T	O	R
A	R	E	P	O
T	E	N	E	T
O	P	E	R	A
R	O	T	A	S

**Figure B.1:** Sator arepo tenet opera rotas

Ph.D. Thesis

[Student name]

[Year]