

Summer Internship Project Report

Detection of Cosmic Muons Using Gas Detectors

Submitted by

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School Of Basic Sciences

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Certificate

This is to certify that Mr. Anantha Padmanabhan, Student of National Institute of Science Education and Research, has successfully completed a summer internship in the field of Group Theory from 5/06/2023 to 29/07/2023 under the guidance of Dr.Sanjib Muhuri. We wish him every success in his life and career.

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Sanjib Muhuri
(Project Guide)

Date:

Abstract

In this report we will discuss about the basics of the group theory and symmetries. The Group Theory is used as a mathematical frame work for describing symmetry properties of classical as well as quantum systems. We will also read about Homomorphisms- a structure-preserving map between two algebraic structures of the same type, Conjugations, and some applications of the Group theory in different fields like the crystallography and Topologies etc.

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1 Introduction

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References

- [1] Shlomo Sternberg. *Group theory and physics*. Cambridge university press, 1995.