### Joint constraints on relativistic jets from neutron star mergers

A thesis submitted in partial fulfillment for the award of the degree of

Master of Science

in

Astronomy and Astrophysics

by

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May 11, 2021

Certificate

This is to certify that the thesis titled Joint constraints on relativistic jets

from neutron star mergers submitted by B.S.Bharath Saiguhan, to the Indian

Institute of Space Science and Technology, Thiruvananthapuram, in partial fulfillment

for the award of the degree of Master of Science in Astronomy and Astrophysics

is a bona fide record of the original work carried out by him/her under my supervision.

The contents of this thesis, in full or in parts, have not been submitted to any other

Institute or University for the award of any degree or diploma.

Dr. Resmi Lekshmi

Designation

Name of Department Head Designation

Place: Thiruvananthapuram

Date: May 11, 2021

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#### Declaration

I declare that this thesis titled *Joint constraints on relativistic jets from neutron star mergers* submitted in partial fulfillment for the award of the degree of Master of Science in Astronomy and Astrophysics is a record of the original work carried out by me under the supervision of Dr. Resmi Lekshmi, and has not formed the basis for the award of any degree, diploma, associateship, fellowship, or other titles in this or any other Institution or University of higher learning. In keeping with the ethical practice in reporting scientific information, due acknowledgments have been made wherever the findings of others have been cited.

Place: Thiruvananthapuram B.S.Bharath Saiguhan

**Date:** May 11, 2021 (SC16B123)

This thesis is dedicated to ...

## Acknowledgements

I acknowledge  $\dots$ 

B.S.Bharath Saiguhan

## Abstract

Abstract here.

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## Abbreviations

GNU GNU's Not Unix EMACS Editor MACroS

## Nomenclature

- m Mass of the object
- c Velocity of light

#### Chapter 1

#### Introduction

Sample code for including figures, tables, algorithms, and citations are listed here.

#### 1.1 Including Figures



Figure 1.1: Sample figure

#### 1.2 Including Algorithms

#### **Algorithm 1.1:** Sum of N numbers

- S = 0
- **2** for i = 1 : N do
- S = S + i
- 4 end
- 5 Ouput S

#### 1.3 Including Tables

In this section, Table 1.1 is explained.

Table 1.1: Sample table

Parameter	X	y
ABC	2	4
DEF	3	9

# 1.4 Theorem, Proof, Lemma, Corollary, Proposition, and Conjecture

**Theorem 1.1.** This is my first theorem.

*Proof.* This is my proof.

Lemma 1.1. This is a content for sample lemma.

Corollary 1.1. This is a sample corollary.

**Proposition 1.1.** This is an example of proposition.

Conjecture 1.1. This is an example of conjecture

## 1.5 Definition, Condition, Assumptions, Examples, and Problems

**Definition 1.1.** An example of a definition.

**Condition 1.1.** An example of a condition.

**Assumption 1.1.** You assumptions can be placed here.

**Example 1.1.** This is an example.

**Problem 1.1.** Problem statements can be put here.

#### 1.6 Remarks, Claims, and Notes

Remark 1.1. Your remarks can be written using this environment.

Claim 1.1. Claims can be made using claim environment.

Note. An example note.

#### 1.7 Citations

Sample citation [1].

#### 1.8 Indexing

Large is a type setting system written in TeX language. LargeX is a free software originally developed by Leslie Lamport in 1980s.

# Chapter 2 Related Work

Write related work here.

#### 2.1 Summary

## Chapter 3

## Conclusions

Conclusions here.

## References

1. Lamport, L. LATEX: a document preparation system: user's guide and reference manual (Addison-wesley, 1994).

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